REFERENCE DOCUMENT

Annual Financial Report

DECEMBER 31, 2018

French *société anonyme* with a Board of Directors

and share capital of € 2,341,693.50

Registered office: 510, rue René Descartes – Les Jardins de la Duranne Bât E & Bât F

13857 Aix-en-Provence Cedex 3 – FRANCE

481 581 890 RCS Aix-en-Provence

Registration Document for the year ended December 31, 2018

AMF AUTORITÉ DES MARCHÉS FINANCIERS

This Registration Document was filed with the Autorité des Marchés Financiers (the "AMF" – the French Financial Markets Authority) on April 30 , 2019 in accordance with the provisions of Article 212-13 of its General Regulation. It may be used in support of a financial transaction only if supplemented by a prospectus approved by the AMF. This document was prepared by the issuer and is the responsibility of its signatories.

Pursuant to Article 28 of Commission Regulation (EC) No. 809/2004, the following information is incorporated by reference in this Registration Document:

- The parent company and consolidated financial statements for the fiscal year ended December 31, 2017, as well as the corresponding audit reports, are incorporated by reference in this Registration Document. They can be found on pages 256 to 297 and 197 to 254 – and the reports found on pages 299 to 312 – of the Registration Document filed with the AMF on April 27, 2018.
- The parent company and consolidated financial statements for the fiscal year ended December 31, 2016, as well as the corresponding audit reports, are incorporated by reference in this Registration Document, and can be found on pages 230 to 259 and 178 to 229 of the Registration Document filed with the AMF under Authorization No. R.17-019, obtained on April 24, 2017.

Copies of the French-language version of this document are available free of charge at the registered office of SuperSonic Imagine, 510, rue René Descartes – Les Jardins de la Duranne, Bât E & Bât F, 13857 Aix-en-Provence Cedex 3, France, as well as on the SuperSonic Imagine website (www.supersonicimagine.fr) and on the AMF website (www.amf-france.org).

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Note

Throughout this Registration Document, the terms "SuperSonic Imagine" and "Company" refer to SuperSonic Imagine, a French limited company (*société anonyme*) with a Board of Directors, whose registered office is located at 510, rue René Descartes, Les Jardins de la Duranne Bât E & Bât F, 13857 Aix-en-Provence Cedex 3, France, registered with the Trade and Companies Register of Aix-en-Provence under number 481 581 890. The term "Group" refers to the group of companies made up of the Company and all its subsidiaries.

A glossary defining certain terms used in this Registration Document is included in Chapter 26.

Disclaimer

Information on the market and competition

This Registration Document contains information relating to the Group's markets and competitive position, in particular in Chapter 6 "Business Overview". This information stems in particular from studies carried out by external bodies. The publicly available information, which the Company considers reliable, was not verified by an independent expert, and the Company cannot guarantee that a third party using different methods to gather, analyze or calculate such market data would obtain the same results. Moreover, the Group's competitors could define the markets differently.

Forward-looking statements

This Registration Document contains indications on the Group's development priorities and prospects. These indications are sometimes identified by the use of future or conditional tenses or terms with a prospective connotation such as "consider", "envisage", "think", "objective", "expect", "intend", "have to", "aim to", "deem", "believe", "wish", "may" or the negative form of those terms where appropriate, or any other variant or similar terminology. This information does not consist of historical data and must not be interpreted as a guarantee that the facts or data mentioned will materialize. Such information is based on data, assumptions and estimates that the Company deems reasonable. It is liable to evolve or to be modified due to uncertainties, in particular with respect to the economic, financial, competitive and regulatory environment. This information is mentioned in various sections of the Registration Document and contains data relating to the Group's intentions, estimates and objectives concerning such aspects as the market on which it operates, its strategy, its growth, its results, its financial position, its cash flow and its forecasts. The prospective information mentioned in this Registration Document is valid solely as of the date of this Registration Document. The Group operates in a constantly evolutive and competitive environment. Therefore, it is impossible for the Group to anticipate all risks, uncertainties or other factors liable to affect its business, or their potential impact on its business or the extent to which the occurrence of a risk or combination thereof could significantly affect the results mentioned in any prospective information. It is recalled that none of this prospective information provides any guarantee of actual results.

Risk Factors

Investors are prompted to carefully read the risk factors described in Chapter 4 "Risk Factors" of this Registration Document before making any investment decision. The occurrence of all or some of these risks is liable to have a material adverse effect on the Group's activities, financial position, results or prospects. Moreover, other risks not yet identified or deemed insignificant by the Company as of the date of registration of this Registration Document may also have a material adverse effect.

1. PERSONS RESPONSIBLE

1.1. PERSON RESPONSIBLE FOR THIS DOCUMENT

Michèle Lesieur, Chief Executive Officer

1.2. STATEMENT OF THE PERSON RESPONSIBLE FOR THIS DOCUMENT

I hereby certify, after taking all reasonable measures to that effect, that the information contained in this Registration Document is, to my knowledge, in compliance with the facts and contains no omissions likely to affect its reach.
I certify that, to my knowledge, the annual and consolidated financial statements were prepared in accordance with applicable accounting standards and give a true and fair view of the assets, financial position and results of the Company and all companies within its scope of consolidation, and that the Board of Directors' management report contained in this Registration Document, as specified in the correspondence table in Section 27.1, presents an accurate picture of the changes to the business, earnings and financial position of the Company and all companies within its scope of consolidation and a description of the principal risks and uncertainties they face.
I have obtained a completion letter (lettre de fin de travaux) from the statutory auditors in which they state that they have verified the information on the financial position and the financial statements contained in this Registration Document and have read this Registration Document entirely.

Aix-en-Provence, April 19, 2019
Michèle Lesieur
Chief Executive Officer

1.3. PERSON RESPONSIBLE FOR FINANCIAL INFORMATION

Elisabeth Winter
Chief Financial Officer
Address: 510, rue René Descartes, Les Jardins de la Duranne Bât E & Bât F, 13857 Aix-en-Provence Cedex 3, France
Telephone: +33 6 61 45 69 17
Fax: +33 483 075 167
Email: elisabeth.winter@supersonicimagine.com

2. STATUTORY AUDITORS

2.1. STATUTORY AUDITORS

ERNST & YOUNG ET AUTRES
Represented by Frédérique Doineau and Xavier Senent
1/2 Place des Saisons, 92400 Courbevoie – Paris La Défense 1 – France
Initial appointment date: appointed by the Ordinary Shareholders' Meeting on July 5, 2010.
Date of expiration of current term of office : Annual Shareholders' Meeting convened to approve the financial statements for the financial year ending December 31, 2021.

ARES X·PERT AUDIT
Represented by Johan Azalbert
26, Boulevard Saint Roch,
BP 278,
84011 Avignon Cedex 1 FRANCE
Initial appointment date: appointed by the Ordinary Shareholders' Meeting on May 16, 2012.
Date of expiration of current term of office : Annual Shareholders' Meeting convened to approve the financial statements for the financial year ending December 31, 2023.

2.2. DEPUTY STATUTORY AUDITORS

AUDITEX
1/2 Place des Saisons, 92400 Courbevoie – Paris La Défense 1 – France
Initial appointment date: appointed by the Ordinary Shareholders' Meeting on July 5, 2010.
Date of expiration of current term of office : Annual Shareholders' Meeting convened to approve the financial statements for the financial year ending December 31, 2021.

Philippe Ruiu
26, Boulevard Saint Roch,
84000 Avignon.
Initial appointment date: appointed by the Ordinary Shareholders' Meeting on May 16, 2012. Date of expiration of current engagement: Annual Shareholders' Meeting convened to approve the financial statements for the financial year ending December 31, 2023.

During the period covered by the historical financial data, no statutory auditor has resigned or been dismissed.

3. SELECTED FINANCIAL INFORMATION

The key financial information presented below is extracted from the Group's consolidated financial statements for the financial year ended December 31, 2018, prepared in compliance with IFRS as adopted by the European Union, and presented in Section 20.1.
It should be read in combination with the information contained in Chapter 9 "Operating and Financial Review", Chapter 10 "Cash and Capital Resources" and Chapter 20 "Financial Information" of this Registration Document.

- **Condensed Consolidated Income Statement**

Consolidated data IFRS (in thousands of euros)	Fiscal year 2018 12 months audited	Fiscal year 2017 12 months audited
Revenue	24,290	24,695
Other income	338	-
Cost of sales	(13,530)	(13,608)
Gross margin	11,098	11,088
Current operating income (loss)	(9,615)	(9,880)
Operating income (loss)	(11,290)	(9,880)
Financial income (loss)	(1,944)	(2,405)
Net income (loss)	**(13,294)**	**(12,247)**

- **Condensed Consolidated Balance Sheet**

Consolidated data IFRS (in thousands of euros)	Fiscal year 2018 12 months audited	Fiscal year 2017 12 months audited
Non-current assets	21,716	19,035
• Of which intangible assets	16,049	14,158
• Of which property, plant and equipment	4,865	4,443
• Of which right to use property, plant and equipment	387	-
• under leases		
• Of which non-current financial assets	415	434
Current assets	29,562	37,148
• Of which cash and cash equivalents	8,593	19,017
Shareholders' equity	12,562	25,591
Non-current liabilities	16,731	12,682
• Of which long-term debt	15,043	11,294
• Of which provisions and other non-current liabilities	1,081	907
Current liabilities	21,985	17,910
• Of which short-term debt	9,832	7,034
• Of which provisions and other current liabilities	5,617	5,650

- **Condensed Consolidated Cash Flow Statement**

Consolidated data IFRS (in thousands of euros)	Fiscal year 2018 12 months audited	Fiscal year 2017 12 months audited
Cash flows provided from/(used in) operating activities, before change in WCR	(7,894)	(7,034)
Cash flows provided from/(used in) operating activities	(10,023)	(4,629)
Cash flows provided from/(used in) investing activities	(4,581)	(7,979)
Cash flows provided from/(used in) financing activities	4,217	18,853
Change in cash and cash equivalents over the period	(10,387)	6,244

4. RISK FACTORS

Investors are urged to take into consideration all the information contained in this Registration Document, including the risk factors described in this chapter, before they decide to purchase or subscribe for Company shares. In the preparation of this document, the Company examined the risks liable to have a material adverse effect on the Group, on its business, financial position, results, development and prospects or its ability to achieve these goals and deems that there are no significant risks other than those mentioned herein.

Nevertheless, the investors' attention is drawn to the fact that other unknown risks, or risks whose occurrence is not deemed liable to have, on the date of registration of this document, a material adverse effect on the Group, its business, its financial position, its results, or its prospects, may exist.

4.1. RISKS RELATED TO THE MARKETS ON WHICH THE GROUP OPERATES

There are alternatives to the Group's technologies and the emergence of new competing technologies cannot be excluded.

The products developed by the Group are sold on markets in which there are already alternative solutions (X-ray and conventional radiology, scanner, nuclear medicine, MRI), whose use is widespread in the practices of physicians and other medical personnel. There are also alternative solutions to the innovations offered by SuperSonic Imagine in ultrasound imaging (see Section 6.2.1 of this document).

Even though the Company believes that other available solutions are less efficient to date than Aixplorer® and Aixplorer MACH 30, especially since conventional ultrasound machines do not deliver with the same speed and same type of information as that which is provided by Aixplorer® and Aixplorer MACH 30, competing technologies, whether already in existence, under development, or still unknown, could in the near or more distant future gain significant market share and reduce the Group's capacity to successfully market its products.

Despite the significant resources it dedicates to research and development activities to preserve its technological edge, the Company cannot guarantee that other technologies allowing real-time viewing and quantitative analysis of tissue elasticity will not be developed, and that the technology integrated by the Company into Aixplorer® and Aixplorer MACH 30 will establish itself as the benchmark in medical ultrasound imaging.

Group competitors with significant financial means or newcomers on the market could also develop new technologies that are more efficient and/or less expensive than those developed by the Group, thereby reducing the demand for existing Group products or lowering its sale and/or maintenance prices.

Maintaining the competitive position of the Group may also require additional significant investments in product improvement, new product development, distribution networks or in sales and marketing. These competitive pressures could have a material adverse impact on the Group's business, financial position, results, development and prospects in the medium and long term.

The Group is competing with large-sized players.

The ultrasound medical imaging market is characterized by a strong concentration around a few large-sized players with considerable financial means. Five of these (General Electric Healthcare, Philips Healthcare, Canon Medical Systems, Hitachi Aloka Medical and Siemens Healthcare) held a combined 76% of the market in 2017 (Source: IHS Markit Report 2018 – see Section 6.4.3 of this document).

Although the Group has in recent years been able to access this market, with high barriers to entry, it remains subject to competition from multi-disciplinary groups whose range of products covers all imaging needs and related services, whereas the Group is present only on the ultrasound market.
Moreover, the relative youth and size of the Group in relation to some of the industry's major long-established players may be perceived as a disadvantage by certain customers, in particular from a maintenance point of view (as the Company does not offer the same guarantees of reliability and durability as certain competitors).
Furthermore, it may not be excluded that a competitor with considerable financial means may sharply reduce the price of all or part of its products that compete with the Group's, notably through economies of scale, to try to limit or curtail the penetration of the Group's products in such markets, and the Group is unable to match such price drops.
The occurrence of one or more of those risks may also have a material adverse effect on the Group's business, financial position, results, development and prospects in the medium and long term.

4.2. RISKS RELATED TO THE GROUP'S BUSINESS

4.2.1. Risks related to the Group's commercial deployment

The Group's development will partly depend on its capacity to step up its commercial deployment in its main existing markets and in new markets. This commercial deployment will rest on several factors, such as:

- Support among health professionals, and opinion leaders in particular, for its innovative technology;
- The quality of the maintenance service provided by the Group;
- The Group's capacity to mobilize the required sales force; and
- The Group's capacity to expand the commercial reach for its products.

The Group's development will depend on the pace at which its innovative imaging technology is adopted by health professionals.
The Group's pace of development will depend heavily on its ability to persuade key opinion leaders and more generally, health professionals present on current and future markets. Its target customers are hospital radiology departments, private radiology offices, clinics or private imaging services and cancer centers.
Despite the compelling results of the clinical trials already conducted, the support of several learned companies all over the world, numerous scientific publications relating the benefits of the Group's innovative solutions in comparison with existing technologies, and the satisfaction of current users of its products, health professionals may be reluctant to change their medical ultrasound imaging practices and switch to the Group's technology and Aixplorer® and Aixplorer MACH 30, particularly for the following reasons:

- The investment represented by the acquisition of an Aixplorer® or Aixplorer MACH 30 system;
- Their lack of experience in the use of Aixplorer® or Aixplorer MACH 30;
- Insufficient amount of favorable clinical data published; and
- The size of the Company and its relative youth in comparison with certain competitors.

The Group's ability to increase recognition of its brand among health professionals will depend mainly on clinical evidence demonstrating its diagnostic superiority. This will occur in particular through the conduct and results of future clinical studies, which are inherently uncertain. While the conduct of clinical studies is not a regulatory requirement in the present case, the Group promotes and coordinates the conduct of such studies by its customers worldwide, as their results support its commercial development.
Moreover, should the Group fail to publish prominent scientific studies on a regular basis, acceptance by opinion leaders and professionals in the relevant medical fields would be delayed. The Group's ability to market its equipment would thereby be affected, which could have a material adverse effect on the Group's business, financial position, results, development and prospects.

User satisfaction will partly depend on the Group's capacity to preserve the quality of the maintenance service it provides for its ultrasound systems.
The Group has a dedicated service for the maintenance of its ultrasound systems. The maintenance team is composed of repairers employed by the Company, as well as Company-trained external service providers operating in certain geographical areas.
In the geographical areas in which the Group does not yet have a strong commercial presence, the low number of Aixplorer® and Aixplorer MACH 30 systems sold by the Group has the automatic effect of limiting the amount of work to be carried out. As a result, maintenance providers may not have the same expertise and practice as those working in areas where the Group has a greater presence.
This situation could have a negative impact on the quality of maintenance service offered by these providers, which are trained by the Company.
In such geographical areas, there is therefore a risk that the Group may be unable to maintain a high-quality maintenance service for its installed systems, which could have a material adverse effect on the Group and its business, financial position, results, development and prospects.

The Group may not be able to set up the required sales forces within the appropriate time frame or under the conditions required for its expansion.
The Group's commercial deployment is reliant on direct and/or indirect sales forces, depending on the geographical region (for further details, refer to Section 6.8.2 "Direct and Indirect Distribution" of this Registration Document).
The Group cannot guarantee that it will be able to hire, train, and retain:

- A skilled direct sales force within a time frame and under financial conditions compatible with its expansion in the countries in which it sells its products directly, in particular France and the United States;
- The employees needed to hire and manage distributors in countries that are covered by an indirect sales force.

Moreover, in geographical regions where it relies on, or intends to rely on, distributors (particularly the United States, China, India, Brazil, Japan, Russia, Saudi Arabia and the Persian Gulf Emirates), the Group cannot guarantee that it will be able to keep its existing distributors and enter into new distribution agreements, or that the available distributors will have the required ultrasound imagery skills and dedicate the resources required for the successful marketing of its products. In general, such distributors are medical equipment and devices distributors who have numerous products to promote and market, thereby leaving a limited amount of time for each product. In order to limit this risk, part of the direct sales force is tasked with providing support to Group distributors in order to help them conduct commercial actions such as participation in trade shows and demonstration workshops in healthcare institutions.

At the end of December 2018, the indirect sales network included 69 distributors (including 17 in China) (for further details, refer to Section 6.8.2.2 of this document).

The use of territorial exclusivity clauses in some of the distribution agreements could be challenged by French and European legislation. Thus, under certain circumstances, those clauses could be considered illegal, in particular if they are perceived as abusive product price-fixing by the Company or as an obstacle to free competition. The exclusive distribution agreements contracted with independent distributors for sales carried out in the European Union could then be null and void and/or give rise to financial penalties against the Group if some of their clauses were found to be unlawful.
The occurrence of one or more of these risks could have a material adverse effect on the Group's business, financial position, results, development and prospects in the medium and long term.

The Group may have difficulties with hiring, managing and developing its distribution network.
The Group conducts a portion of its sales indirectly, through a network of distributors. The Group may experience difficulties with recruiting new distributors, renewing or terminating contracts with some of them, or be faced with solvency problems of these distributors. Details are given in Sections 4.2.4, 4.4.6 and 20.8 of this document.
The occurrence of one or more of these risks could have a material adverse effect on the Group's business, financial position, results, development and prospects in the medium and long term.

The Group's development will depend on its capacity to expand its range of products to increase its commercial reach.
The Group intends to continue its research and development efforts in order to improve its existing products and develop new products to expand its commercial reach.
The Group's ability to find new applications for existing products, introduce new products and expand its markets geographically, will depend on obtaining approvals as may be necessary.

The pace of development of the Group may be affected by the general context of cuts in public spending.
The general economic situation involving cuts in public spending could affect the Group's growth pace, as it may give rise to:

- A drop in the orders from public-sector customers or their postponement, even when the Company was selected following a call for tender;
- The extension of those customers' terms of payment; and/or
- A reduction in the refund of all or part of the costs of the medical services performed with the Company's products, thereby limiting its technology's market penetration.

The international geopolitical context can also have a negative impact on sales.
This could also result in a market preference for low-end or mid-range products (less expensive) while the Group is positioned on the premium and high-end markets.
The occurrence of one or more of those situations could affect the Group's growth pace.

The Group's rate of development could be affected by the arrival of new players on the imaging market.
In the last few years, and even in the latest months, significant investments have been made by actors trying to enter the imaging field.
Should any major new innovations occur, the Group's competitive advantage could be diminished, and prospects for rapid development could suffer accordingly.

4.2.2. Intellectual property risks

The Group relies, to a large extent, on the exclusive nature of its intellectual property and know-how to maintain its competitive edge in key areas and license some of its innovations to promote their adoption on a wider scale by the medical profession. However, the Group may be unable to maintain or obtain appropriate protection and thereby preserve its technological and competitive edge.

For the success of its business, it is important for the Company to be able to obtain patents, maintain them and ensure their protection. This also applies to all other intellectual property rights in the countries where the Company operates, notably in Europe, the United States, China, South Korea and Japan.

To protect its products and technology, the Group relies on the protection afforded by intellectual property rights, such as patents and trademarks, as well as on exclusive licensing agreements, confidentiality agreements, or other contracts for its technological secrets and know-how. However, these methods provide only limited protection and may fail to prevent the unlawful use of the Group's products or technology by third parties or partners.

The innovative technology on which the Group's business is based is mainly protected by:

- Several patents and patent applications covering the hardware and software aspects of its existing products, as well as a certain number of other technologies or processes under development;
- The Group's know-how, which covers in particular the product architecture, which is entirely software-based, as well as manufacturing methods and the choice of some critical components.

The Company may encounter difficulties in getting its pending patent applications approved. Moreover, the delivery of a patent does not guarantee its validity, or enforceability, each of which may be contested by third parties. Furthermore, while the Company generally has patents registered or pending in the countries in which it operates (notably the United States, the main European countries, and some countries in Asia), it has not yet applied for patents in all of those countries. In addition, there are still some countries that do not protect intellectual property rights in the same way as in Europe or the United States, and effective procedures and rules necessary to ensure the rights of the Company may not exist in those countries.

The Company cannot fully guarantee that:

- The Company will manage to develop other patentable inventions;
- The Company was the first to come up with a particular invention and apply for a patent, given the fact that, in most countries, patent applications are published 18 months after the filing of the applications and any patent previously filed in any other country could be used against the Company;
- The Group's pending patent applications will result in the delivery of patents and consequently the protection of the targeted inventions in all the countries in which those patent applications have been filed;
- Third parties will be unable to claim property rights on patents or other intellectual property rights fully or jointly held by the Company, or for which it holds a license;
- Company employees will not claim rights or the payment of additional remuneration or a fair price in consideration of inventions that they participated in creating;
- The patents granted to the Group will not be contested, invalidated or circumvented;
- The extent of the protection afforded by the patents is sufficient to protect the Company against competition and third-party patents on similar products or devices;

- Legal actions or referrals to the competent offices and/or bodies will not be necessary to ensure the protection of the Company's intellectual property rights, protect its trade secrets or determine the validity and scope of its intellectual property rights; and
- The Group's technology does not infringe on patents or other intellectual property rights belonging to third parties.

The Group's competitors could thus successfully contest the validity of its patents before a court or through other procedures. Depending on their results, such claims could reduce the scope of the patents, invalidate them or enable competitors to circumvent them. Consequently, the Group's rights under those patents may fail to afford the expected protection against competition.
Similarly, the Group's competitors may also challenge the freedom of operation of certain aspects of the product that require the Company to modify its engineering or license patents from third parties.
In addition, third parties (or even employees of the Company) may use or attempt to use the elements of the Company's technology protected by intellectual property rights, which would create a harmful situation for the Company. The Company may therefore be forced to initiate judicial or administrative proceedings against third parties to enforce its legal rights, including intellectual property rights (patents, trademarks, designs, or domain names). Some competitors that have more funds than the Company may be better able to bear the costs of litigation.
In addition, the Group's trademarks are major components of its identity and products. Despite the registration of the "SuperSonic Imagine" trademark (especially in France, Europe, the United States and China), the "Aixplorer MultiWave™®" trademark (especially in France, Europe, the United States and Japan), "Aixplorer®" (in France and the United States) and "Aixplorer MACH®" (in France, Europe, China and the United States), third parties may use or attempt to use these trademarks or other Group trademarks, thereby causing prejudice to the Group's business and image.
The occurrence of one or more of those risks could have a material adverse effect on the Group's business, financial position, results, development and prospects in the medium and long term.

The Group shares certain parts of its know-how and develops jointly-held rights within the scope of collaboration agreements with third parties.

The Company cannot guarantee either that its Aixplorer® and Aixplorer MACH 30 products and its technology, which are closely linked to its know-how and technological secrets, are adequately protected against competitors and will not be usurped or circumvented, notably within the scope of collaboration and research and development agreements. Indeed, in the collaboration and research and development agreements entered into by the Group, the latter must often provide its contractual partners, in various forms, with certain parts of its know-how, which may or may not be protected by patents, notably information and data concerning product research, development, manufacturing and marketing.
The Group strives to limit the communication of key parts of its know-how to third parties to the strict minimum required for the collaboration they have with them and contractually ensures that such third parties undertake not to use, misappropriate or communicate this information, through the use of confidentiality clauses. However, the Group cannot guarantee that such third parties will comply with those agreements, that the Group will be informed of any violation of these clauses, or that any compensation it may obtain would be sufficient in view of the prejudice suffered.
Also, such collaboration and research and development agreements expose the Group to the risk of seeing its co-contracting parties claim the benefit of the intellectual property rights on Group inventions, knowledge or results.
Moreover, such agreements could give rise to jointly-held intellectual property rights or the granting of exclusive operating licenses under conditions which are unfavorable to the Group.

Other licensing agreements

The Company has entered into licensing agreements with industrial and academic actors in the field. The main terms and conditions, and particularly the royalties paid by the Group to the respective patent license owners, are detailed in Section 11.2.3 and Chapter 22 of this document.

As long as the Group uses licensed technologies, it will be dependent on such technologies granted to it. Any violation of the licensing conditions by the Group could result in the loss of the right to use the technology in question. This could have a material adverse effect on the Group, its business, its financial position, its results, its development and its prospects.

It cannot be ruled out that legal action may be taken against the Group for patent infringement.

For the success of its business, it is important for the Group to be able to have unencumbered use of its products and technology with respect to third-party patents or intellectual property rights.

The Group's protection of its intellectual property rights represents a significant cost, notably for the registration and upkeep of its patents and the management of its other intellectual property rights. Such costs could increase, especially if legal actions were to be introduced by the Group in order to enforce its own patents. Moreover, if legal action proved necessary to assert the Group's intellectual property rights, protect its technological secrets or know-how or determine the validity and extent of its intellectual property rights, such action could have a material adverse effect on the Group's results and financial position, possibly without securing the desired protection.

Likewise, keeping watch for unauthorized use of the Company's distinctive products and marks is difficult. While the Group has set up a monitoring system in this respect, it cannot be certain that it will be able to avoid misappropriation or unauthorized use of its products, especially in foreign countries where its rights would be less well protected or where the Company uses distributors to market its products.

While the Company commissions its intellectual property consultants to carry out regular studies on its freedom of use, it cannot guarantee that there are no existing third-party patents or other intellectual property rights that may cover some of the Group's activities, products or technologies, thus enabling such third parties to take legal action against the Group for patent infringement or on similar grounds, to obtain damages or cessation of the unlawful use of the product or process at stake.

If such actions were to be instituted and proved legitimate, in whole or in part, the Group would be obliged to purchase a license or stop or delay the research, development, manufacturing or sale of the products or processes targeted by these actions, thereby significantly affecting its business activities. In particular, in addition to the payment of financial compensation, the Group may be required to:

- Stop manufacturing, selling or using the products or technology in question, in a given geographical region, thereby reducing its revenues;
- Obtain a third-party intellectual property license under unfavorable conditions for the Group;
- Find alternative solutions which do not infringe the intellectual property rights of third parties, something which may, in certain cases, prove impossible or costly in terms of time and financial resources, and could thus hinder its marketing efforts.

Proceedings instituted against the Group, irrespective of their outcome, could also give rise to substantial expenses, disrupt its operations, and jeopardize all or part of its activities, its image and its reputation.

On March 6, 2008, the Group filed an opposition against European patent EP1874192B1, owned by Verasonics. As of the end of 2018, no opposition had been filed against any Group patents.

However, the occurrence of one or more of the above-mentioned risks could have a material adverse effect on the Group's business, its financial position, its results, its development and its prospects.

The Company has provided securities involving a portion of its intellectual property rights.
In March 2017 and December 2018, the Company agreed two Venture Loans with Kreos Capital V Ltd (United Kingdom) and Kreos Capital V (Expert Fund) L.P. (hereinafter jointly referred to as "Kreos").
It thus provided a number of securities to Kreos to secure this Venture Loan.

As security for the March 2017 Venture Loan, the industrial property rights subject to the pledge, pursuant to Article 2355 of the French Civil Code and Articles L. 521-1 et seq. of the French Commercial Code, and Articles L.132-34 and R132-8, L.613-8, L.714-1 and R132-8 of the French Intellectual Property Code, are as follows:

- Each of the:
  - French patents registered in the National Patent Register of the French National Industrial Property Institute (INPI);
  - European Patents and Patent Cooperation Treaty patents involving France filed, as the case may be, with the European Patent Office or the World Intellectual Property Organization;
  - Software (including exploitation rights):

pertaining to the patent families referenced in numbers 4, 5 and 7,

  - As well as the Aixplorer MultiWave international trademark and the Aixplorer MultiWave EU trademark
- all similar intellectual property rights to those described in paragraph (a) above that the Company or any subsidiary may acquire by any means hereafter, in accordance with and subject to the provisions of Article 2355 of the French Civil Code, including rights that are currently subject to an application and/or a filing that is being processed, pertaining to the patent families referenced in numbers 4, 5 and 7, as well as the patent family referenced in number 6.

As security for the December 2018 Venture Loan, the industrial property rights subject to the pledge, pursuant to Article 2355 of the French Civil Code and Articles L. 521-1 et seq. of the French Commercial Code, and Articles L.132-34 and R.132-8, L.613-8, L.714-1 and R.132-8 of the French Intellectual Property Code, are as follows:

- Each of the:
  - French trademarks registered in the INPI's National Trademarks Register;
  - European Union trademarks registered in France with the European Union Intellectual Property Office (EUIPO);
  - French patents registered in the INPI's National Patent Register;
  - European Patents and Patent Cooperation Treaty patents involving France filed, as the case may be, with the European Patent Office (EPO) or the World Intellectual Property Organization;
  - software (including exploitation rights):

    pertaining to the patent families referenced in numbers 4, 5 and 7 and under the acronym GPU, in addition to
- all similar intellectual property rights to those described in paragraph (a) above that the Pledgor or any Subsidiary may acquire by any means after the date of this Deed, in accordance with and subject to the provisions of Article 2355 of the French Civil Code, including rights that are subject to an application and/or a filing that is being processed as of the date of this

Deed, pertaining to the patent families referenced in numbers 4, 5 and 7, as well as the patent family referenced in number 6 and under the acronym GPU.

Should the Company fail to repay or fail to honor any of its obligations under the Venture Loans, Kreos may enforce the pledges.

4.2.3. Risks related to the manufacturing process of the Group's products

The Group depends on subcontractors for the supply of part of the components of the Aixplorer® system.

Aixplorer® includes components and raw materials of various types, including mechanical, electronic and acoustic components.

In order to safeguard its manufacturing process, the Group established a strategic partnership with one of the major circuit board manufacturers in the field of sonography (Plexus), which has a significant supply of electronic components. This subcontractor is also responsible for the final assembly of the Aixplorer system for SuperSonic Imagine, i.e. it brings together all the system components: the circuit boards it manufactures, user interface, mechanics, and screen. This subcontractor is also responsible for 100% of certain ultrasound range products for SSI's competitors. In medical sonography, all manufacturers concentrate the manufacturing of each of their products taken individually with a single subcontractor, specifically because of the low number of products manufactured. Their subcontractor diversification works at product range level and each product within the range can be manufactured by different entities.

The risk posed by this subcontractor is low for two reasons:

- If a Plexus facility can no longer manufacture, SuperSonic Imagine can pick another of this subcontractor's facilities, in Scotland for example, which was already used by SSI in the past;
- If SuperSonic had to switch manufacturer, it could use the competitors of its current subcontractors. The transition would take a few months, during which time Plexus undertakes to continue deliveries to SuperSonic Imagine in line with a supply plan and hence a commitment that lasts for a year.

Furthermore, the group decided to use multiple sources for its main components: in particular its ultrasound probes (twin sourcing with Vermon in France and Humanscan in South Korea) and also has a 12-month sourcing commitment in the event of the cessation of activities or termination of the subcontracting agreement.

As regards the mechanical components, the Group considers that it has a low risk of dependence because there are multiple subcontractors in this market in Asia.

Some components deemed critical by the Company such as power supplies and control panels (user interface) are single-source components, largely because of the joint development work between the Company and the supplier to ensure that these components are customized specifically for Aixplorer®. Seeing that no specific know-how is required to manufacture them, we could find other suppliers of these electronic components on the market at any time. The associated risk is therefore minimal.

The Group depends on third parties for the manufacturing and assembly of its products.

The Group depends on third parties for the manufacturing of all of its products. Thus, its commercial success partly rests on its capacity to get its subcontractors to manufacture its products in compliance with regulatory provisions, in the required quantities, within the requested deadlines and in a cost-effective way. Problems could arise during their manufacturing or distribution and give rise to delays in the supply of the products, with possible consequences such as a cost increase, a drop in sales, the deterioration of relations with customers and, in certain cases, a product recall causing prejudice to the Group's image and risks in terms of the Group's liability, if the problems were only discovered after the sale.

Moreover, the manufacturing of the Group's products is particularly complex and demanding, notably because of applicable regulations and the specifications imposed by the Group. All of the processes used for the manufacturing of the Group's equipment and consumables have been patented by the Group, and are therefore covered by the certificates obtained by the Group for CE mark and Food and Drug Administration (FDA) approval.

Should the Group change critical suppliers or subcontractors for its equipment and consumables, it would need to re-validate the manufacturing process and procedures in accordance with applicable standards and norms. In this case, additional tests and verifications, or even regulatory certification procedures, may be necessary. This procedure could be costly, time-consuming and require the attention of the Group's most qualified personnel. Should these new authorizations be refused, the Group may be required to look for another supplier or subcontractor, something which may delay the production, development and marketing of its products and increase their manufacturing costs.

The Group also outsources the assembly of its products to the global market leader in medical device assembly. This supplier, which holds the FDA GMP (Good Manufacturing Practice) label, is an important player in the sector and has two large key multinational companies from the imaging sector among its customers. Until late December 2013, the equipment was manufactured on the European site of the supplier, who also has installations in the United States and in Asia. The transfer of production (tools, equipment, knowledge and training) undertaken since July 2013 was finalized in 2014, and in April 2014, production was completely and effectively relocated to the supplier's facilities in Malaysia.

The occurrence of one or more of these risks could have a material adverse effect on the Group's business, financial position, results, development and prospects.

Should, for a variety of reasons, the relationship with one of the Group's suppliers or subcontractors be terminated, the Group may be unable to find a subcontractor with the same competence level within the required time frame or under satisfactory trade conditions.

Moreover, this dependence on third-party manufacturers poses additional risks to which the Group would not be exposed if it produced its products itself, i.e.:

- Non-compliance of the products manufactured by such third parties with regulatory requirements and quality standards;
- Violation by such third parties of their agreements with the Group; and
- Termination or non-renewal of the agreements for reasons beyond the Group's control.

Furthermore, the Company cannot guarantee that its subcontractors or suppliers will always comply with applicable regulations, authorizations and standards. Should the products manufactured by the suppliers or the quality systems implemented by them prove non-compliant with applicable regulations or standards, penalties could be imposed on the Group. Such penalties could include fines, injunctions, the payment of damages, the suspension or withdrawal of the authorizations or certificates obtained, license withdrawals, product seizure or recall, restrictions of operation or use, and criminal proceedings. All such measures may have a material adverse effect on the Group's activities.

To minimize the risks linked to subcontracting, in addition to the stringent selection criteria it has set up, the Group guarantees the quality of the products delivered by having its production teams perform the final setting of its products prior to their dispatch to customers.
Should commercial deployment intensify, it is possible that the Group would increase its level of subcontracting, entailing similar risks.
The occurrence of one or more of these risks could have a material adverse effect on the Group's business, financial position, results, development and prospects in the medium and long term.

4.2.4. Risks related to the Group's customers

The installed base of over 2,300 systems sold as of December 31, 2018 were marketed to a portfolio of customers composed of both healthcare institutions (hospitals and clinics) and medical imaging centers, and of independent practitioners, research centers and distributors.

As healthcare institutions and medical imaging centers generally function on budget lines, the Group has very rarely been confronted with insolvency problems. The same is true for independent practitioners.

As for distributors, during the selection process, the Group checks the solidity of their financial position and makes sure that they comply with local regulations for the distribution of medical devices. To date, the largest of them is one of the Chinese distributors. However, the Group cannot exclude the possibility that one or more of its distributors could default in their payment obligations to the Group, as was the case with the Group's former distributor in Brazil. The Group has established a debt repayment schedule with that distributor, for which all relevant details are given in Note 13 to the consolidated financial statements in Section 20.1.

The average terms of payment granted to the Group's customers vary according to each country's practices. In certain cases, down-payments are required with the order, and installments are payable at various stages of the sale (shipping, delivery, installation, final acceptance).

The Group's practices vary according to the country risk analysis. When the analysis reveals a high-risk level, the order must be paid in full upon shipping or documentary credit is required.

For these reasons, the Group deems that it is not confronted with significant dependence on a customer.

Lastly, most of the distribution agreements allow the Company the option of unilaterally terminating the agreement in the event of a change in control of the distributor.

4.2.5. Risks related to product liability claims

Besides legal guarantees, the Group could be exposed to liability claims during the clinical practice or commercial operation of its products, in particular product liability claims. Criminal charges or legal proceedings could be lodged against the Group by users (patients, practitioners, researchers, and other health or research professionals), regulatory authorities, distributors, or any other third parties using or marketing its products.
To date, no such claims or legal actions have been lodged against the Group on this ground, which has subscribed liability insurance policies for defective products providing for the following cover limits:

- Before delivery (operating liability): €8 million per claim, per year of insurance;
- After delivery (product liability): €7 million per claim, per year of insurance (including the United States and/or Canada).

The Company cannot guarantee that its current insurance cover will be sufficient to meet the liability claims, which may be lodged against it. Should the Company be found liable and be unable to obtain and maintain appropriate insurance cover at an acceptable cost, or protect itself in any way against liability claims for defective products, its image would be severely affected, as well as the marketing of its products. In a broader way, this would have a material adverse effect on the Group's activities, results, financial position, development and prospects.

4.2.6. Risks related to the product warranty given by the Group

In parallel with the setup and upkeep of a Quality Management System (QMS) certified compliant with international norm ISO 13485: 2003, aimed at ensuring that its products comply with strict quality criteria, the Group gives its customers a warranty of at least one year following the commissioning of Aixplorer® units sold. This warranty may be extended to a maximum of five years, depending on the customers' needs. This warranty covers defects of component materials and the conformity of the delivered products with the technical specifications and description.

Although the Company believes that the risks of implementing this contractual guarantee are reasonably provisioned (see Notes 3.17 and 22 in the notes to the consolidated financial statements prepared under IFRS in Section 20.1 of this document), it cannot guarantee that these provisions are sufficient to meet the implementation of the contractual guarantee by all its customers. Should the Company be found liable, and be unable to obtain and maintain appropriate provisions, or protect itself in any way against such contractual warranty claims, the marketing of the products would be adversely affected. In a broader way, this would have a material adverse effect on the Group's activities, results, financial position, development and prospects.

Likewise, once the equipment sold by the Group is no longer covered by the warranty, the Group offers a choice of several maintenance contracts that cover all or some of the spare parts and labor. While the price of these contracts has been set so as to ensure a satisfactory operating margin for the Group, the occurrence of frequent hardware failures or the defectiveness of a critical component

across a significant portion of the installed base may have a material adverse effect on the Group's activities, results, financial position, development and prospects.

4.3. RISKS RELATED TO THE GROUP'S ORGANIZATIONAL STRUCTURE

4.3.1. Risks of dependence on key people

The Group could lose key personnel and be unable to attract other qualified persons.
The Group's success largely depends on the commitment and expertise of its managers in general, its sales teams and its qualified Research and Development scientific personnel.

The departure of one or more of these persons or other key employees of the Group could give rise to:

- Losses of know-how and the weakening of certain activities, especially if such persons were to join competitors; or
- Deficiencies in terms of technical skills which may slow down activities and, in the longer term, alter the Group's capacity to reach its objectives.

To address this risk, the Group has set up dedicated contractual provisions adapted to its business and which comply with labor law requirements: non-compete and non-solicitation clauses, as well as transfer of intellectual property and confidentiality clauses. It has also set up personnel incentive and loyalty-building measures in the form of performance-related pay and the granting of securities giving access to the share capital of the Company (warrants, founders' warrants (*bons de souscription de parts de créateur d'entreprise*), stock options and free shares).
Moreover, the Group will need to recruit new managers, sales representatives and qualified scientific personnel for the development of its activities. It is in competition with other companies, research institutes and academic institutions, notably to recruit and gain the loyalty of highly qualified scientific, technical and management personnel. Since competition is very intense, the Group may be unable to attract or retain such key personnel under economically acceptable conditions.
The Group's incapacity to attract and retain such key people could generally prevent it from reaching its objectives and thus have a material adverse effect on its business, results, financial position, development and prospects.

4.3.2. Risks related to the management of the Group's internal growth

As part of its development strategy, the Group will need to recruit additional personnel and develop its operational capacities, which could put significant strain on its internal resources.
To this effect, the Group will particularly need to:

- Train, manage, motivate and retain an increasing number of employees;
- Anticipate the expenses required for this growth and the related financing requirements;
- Anticipate the demand for its products and the revenues they are liable to generate;

- Increase the capacity of its existing IT systems dedicated to operations, finance and management;
- Increase its production capacities as required, as well as its inventory of critical materials; and
- Maintain the current customer support and quality levels.

The Group's incapacity to manage this growth, or unexpected difficulties encountered during its expansion, could have a material adverse effect on its business, results, financial position, development and prospects.

4.4. FINANCIAL RISKS

Also refer to Note 4 "Financial risk management" to the consolidated financial statements in Section 20.1 of this document. All figures below are extracted from the consolidated financial statements prepared under IFRS.

4.4.1. History of losses – Specific risks related to forecast losses

Since its incorporation in 2005, the Group has recorded operating losses related primarily to the innovative nature of the products developed, which involve a research and development phase of several years until the marketing phase.
At December 31, 2018, consolidated net losses accumulated since the Group was incorporated (the sum of consolidated net losses recognized for the fiscal years ended December 31, 2009 to 2018 and the negative retained earnings as of January 1, 2009) amounted to €131.9 million, including a loss of €13.3 million for the fiscal year ended December 31, 2018. Cumulative operational losses by the Group over the last two fiscal years ended December 31, 2017 and 2018 amounted to €25.5 million.

The Group should incur further operating losses over the coming years in line with the objective of breaking even in terms of EBITDA within five years of the Company's initial public offering (see Chapter 12 of this document).

4.4.2. Liquidity risk – Future need for additional capital and financing

Since its inception, the Company has financed its growth by increasing its capital through:

- Successive capital increases (the largest fundraising being the Company's initial public offering in April 2014, which raised €54.8 million gross, €50.3 million net of expenses associated with the initial public offering), with the most recent round in June 2017 being a resounding success with €11.5 million raised;
- A €5 million bond issue in December 2013, redeemed in March 2017;
- A new bond issue in March 2017, which is described in Note 18.2 to the consolidated financial statements in Section 20.1 of this document;

- A new bond issue in December 2018, which is described in Note 18.2 to the consolidated financial statements in Section 20.1 of this document;
- Two long-term "innovation" loans taken out with Bpifrance in 2017 and 2018, described in Note 18.3 to the consolidated financial statements in Section 20.1 of this document;
- Short-term financing totaling €5.1 million as of December 31, 2018, mainly composed of the pre-financing of the 2018 research tax credit (CIR) for €1.6 million and a trade receivables factoring facility for €3.2 million;
- Repayable advances, described in Note 18.1 to the consolidated financial statements in Section 20.1 of this document.

A detailed table of financing, by type and by year, since the Company's incorporation can be found in Section 10.1.2 of this document.

As of the reporting date, the Group considers that it will need new sources of funding to cover its operating activities and planned investments over the next 12 months.

To have the necessary financial resources and underpin its development and growth, the company is currently negotiating with various financial partners regarding possible further new funding options. It has, for example, the option of issuing a €6 million Kreos Tranche 4 by September 2019 (signed in December 2018 and subject to certain conditions). Also refer to Section 10.5 of this document.

In the future, the Group will continue to have significant financing needs for the development of its technologies and the marketing of its products.

The level of the Group's financing needs and their sequencing in time depend on factors that are largely beyond the Group's control, such as higher costs and slower progress than expected for:

- Its research and development programs;
- Obtaining regulatory approvals, including the time to prepare applications for the competent authorities; and
- Ensuring the commercial development of its products.

It is possible that the Group may fail to arrange additional financing or experience a significant increase in the cost thereof. Furthermore, should the necessary funds not be available, the Group may have to limit its production or development of new markets.

Moreover, should the Company raise capital through the issuing of new shares, its shareholders' holdings could be diluted. Financing through loans, if available, could also impose restrictive conditions, especially of an operational nature, for the Company.

The occurrence of one or more of these liquidity risks could have a material adverse effect on the Group, its business, its financial position, its results, its development and its prospects.

4.4.3. Risks related to the research tax credit

To help finance its activities, the Group has opted to receive a research tax credit (*crédit d'impôt recherche* or RTC). The research expenses eligible for the research tax credit notably include wages

and emoluments, the depreciation of research equipment, the cost of services outsourced to approved research bodies (public or private) and intellectual property costs.

The tax authorities may modify the calculation of R&D expenses used by the Company or the research tax credit may be jeopardized by a change in regulations or may be contested by the tax services even though the Company complies with the requirements in terms of documentation and eligibility of the expenses. If such a situation were to occur, it could have an unfavorable effect on the Group's business, results, financial position, development and prospects.

In 2010 and 2014, the Company's taxes for 2007-2008 and 2011-2012 were audited, respectively, with no adjustment being proposed for the research tax credit.
In addition, the tax authorities reviewed the technical and financial basis for the R&D work declared for the research tax credits for 2013 and 2014. Following this, they were paid to the Company. In 2016, the tax authorities also reviewed the financial documentation underpinning the research tax credit for 2015, resulting in its payment in December 2016.
In 2017, the equivalent payment took place in October.
As of December 31, 2018, the receivable relating to the research tax credit for 2018, for which the Company had requested reimbursement, amounted to €2.4 million. As indicated in Note 14 to the consolidated financial statements in Section 20.1, given its SME status in EU terms, debts related to the research tax credit are usually repaid within one year of their recognition.

4.4.4. Risks related to the use of public grants and advances

Since its inception, the Group has received a total of €2.623 million in repayable grants and €7.407 million in subsidies, bonuses and similar payments. The details of these amounts are presented in Section 10.1.2 of this document.
Should the Company fail to comply with the terms and conditions of the agreements signed for repayable advances, it could be obliged to repay the amounts advanced earlier than scheduled. Such a situation could deprive the Group of certain financial resources required to complete its research and development projects.
In the event that advances were granted and booked to deferred income, if the Company does not spend the amounts required to maintain such grants, it may be obliged to repay them.
Please refer to Sections 10.1.2.4 and 10.1.2.5 of this document, in which descriptions of the repayable advances and grants obtained by the Company are listed.

4.4.5. Foreign exchange risk

As the Group carries out its business internationally, it is exposed to foreign exchange risks stemming from its operations in currencies other than the euro, which is the Company's functional currency and the currency in which it presents its financial statements.
The operating results and assets of the foreign entities (US, Chinese and British), as well as the Group's liquidities, are exposed to foreign exchange fluctuations, mainly to the EUR/USD exchange rate.

All the Group's sales are denominated in EUR excluding sales in China, sales by the Company's U.S. subsidiary, sales by the U.S. area distributor and sales to some of the French company's customers made in dollars.
The Group's exposure to fluctuations in EUR/USD exchange rates is limited to the extent that the dollar amounts collected cover supplier invoices and personnel costs in that currency.

4.4.6. Interest rate, credit and liquidity risks relating to cash management

Interest rate risk
As of the filing date of this document, the interest rate risk exposure mainly affected the use of a short-term overdraft of €5.1 million.
In March 2017, the Group conducted a two-tranche bond issue for a nominal amount of €12.0 million, which was subscribed at a fixed rate.
In December 2018, the Group conducted a two-tranche bond issue for a nominal amount of €12.0 million. The first €6 million tranche was subscribed at a fixed rate.

The Company believes that any change of +/-1% in interest rates would have a non-significant impact on net income in relation to the losses generated by its operating activities.

Credit risk and cash management risk
Credit risk is managed on a Group-wide basis. Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions.
Credit risk linked to cash, cash equivalents and current financial instruments is not significant given the quality of the co-contracting financial institutions.
Customer credit risk is monitored by management on an individual basis and gives rise, for a portion of export receivables, to the purchase of suitable insurance coverage.

Liquidity risk
Cash flow forecasting is performed by the Finance department. On the basis of regularly updated projections, Group management monitors the Group's liquidity requirements to ensure it has sufficient cash available to meet operational needs.
Such forecasting occurs on a weekly basis and takes into consideration the Group's financing plans.
The Group's surplus cash is invested in interest-bearing current accounts, term deposits and money market deposits through the choice of instruments with appropriate maturities or sufficient liquidity to provide sufficient flexibility as determined by the above-mentioned forecasts.

4.4.7. Risk of dilution

The Company may, in the future, decide to issue new shares or award free shares or new financial instruments giving access to the Company's share capital, in particular within the scope of its incentive policy towards its managers and employees.
As part of this incentive policy, the Company has, since its incorporation, regularly issued or granted free shares, warrants, stock options, and founders' warrants (*bons de souscription de parts de créateur d'entreprise*), the majority of which are already exercisable. Within the scope of this policy, the Company could, in the future, issue or award new financial instruments giving access to the Company's capital.
The full exercise of all instruments giving access to capital that were issued and have not lapsed as of the registration date of this document would allow the subscription of 4,454,047 new shares while generating a dilution equal to 15.99% on the basis of fully diluted share capital and voting rights (see details in Section 21.1.4.6 of this document).
Any additional grant or issue would give rise to additional dilution, which may be significant for the Company's shareholders.
In March 2017 and April 2018, the Company set up:

- A free share plan for its employees (as of the date of registration of this document, the Management Board had awarded a total of 1,187,500 performance shares for the Company's employees and corporate officers under authorizations granted by the Combined Shareholders' Meeting. See Section 21.1.4.4.).

In December 2018, the Company arranged a Venture Loan type bond tranche for €6 million, with the option of an additional tranche of €6 million before the end of September 2019, subject to certain conditions:

- Convertible bonds can be converted into Supersonic Imagine shares at any time, upon request from Kreos, at a price equal to the volume-weighted average price per share during the 30-day trading period ending 10 days prior to the drawdown of the first tranche of convertible bonds (moving volume-weighted average price – **MVWAP**). This price may be adjusted downwards in the event of a capital increase at a lower price, subject to the volume-weighted average price per share during the 3 days prior to the issuance of the convertible bonds, discounted by 5% (discounted volume-weighted average price – **DVWAP**). The number of shares that can be subscribed for in the event of conversion of the two convertible bond tranches (amounting to €2.4 million) will be capped at 1,940,491 shares (970,246 shares for the first tranche issued for €6 million and 970,245 shares for the second tranche, not yet issued). This equates to approximately 7.65% of the share capital on an undiluted basis. For example, assuming a conversion price per share of €1.5811 (i.e. 100% of the MVWAP as of today's date), a shareholder who holds 1% of the share capital prior to the issue would end up holding around 0.968% of the share capital following the conversion of all the convertible bonds in the first tranche and 0.939% of the share capital following the conversion of all the convertible bonds in the first and second tranches.
- Warrants can be exercised at any time, upon request from Kreos, at a price equivalent to the MVWAP. This price will be adjusted downwards in the event of a capital increase at a lower price, subject to the DVWAP. The number of shares that can be subscribed for if the two tranches of warrants are exercised (amounting to €2.64 million) will be capped at 2,134,540 shares (1,600,906 shares for the first tranche of warrants issued for €6 million and 533,634 shares for the second tranche, not yet issued). This equates to approximately 8.35% of the share capital on an undiluted basis. For example, assuming an exercise price per share of €1.5811 (i.e. 100% of the MVWAP as of today's date), a shareholder who holds 1% of the share capital prior to the issue would end up holding around 0.949% of the share capital

following the exercise of all warrants in the first tranche and 0.933% of the share capital following the exercise of all warrants in the first and second tranches. In addition, for the purposes of this issue, Kreos Capital V (UK) Ltd surrendered the warrants issued to it on March 13 and December 22, 2017, which represented a maximum dilution of 647,048 shares equivalent to around 2.68% of the share capital (on an undiluted basis).

4.5. LEGAL RISKS

The Company manages in-house the legal aspects of its business, as well as its compliance with regulatory requirements (market authorizations, insurance, intellectual property, registration of trademarks and domain names, etc.). To this effect, the Company may use intermediaries, service providers or specialized advisors to supplement its expertise, or outsource certain tasks to them, especially with regard to intellectual property. The Company thus calls on local consultants, distributors or regulatory representatives for the submission of certification applications to certain local regulatory authorities. It also uses companies that specialize in intellectual property for the completion and filing of applications and insurance brokers.

4.5.1. Risks related to the regulations applicable to the medical devices developed by the Group and its possible evolution

The Group's products must comply with stringent, constantly changing regulations that govern their marketing. These regulatory constraints have a strong impact on all the Group's activities and the development, control, manufacturing and sale of its products.

Complying with this regulatory process may prove long and costly, without any guarantee as to the actual granting of the approvals, the time taken to grant them or the upkeep of such approvals. If the certification or market approval for the Group's products was to be refused, suspended or withdrawn, their marketing could be delayed or prohibited in the relevant countries.

While the Group takes into consideration, within the scope of its business, the potential changes in legal requirements, standards and regulations applicable in the countries in which the Group markets or intends to market its products, new regulatory constraints could prevent the marketing of the Group's products in the event of a withdrawal, suspension or non-renewal of the market approval or slow it down, notably by making their production or development more complex and more costly.

Such situations, if they were to take place, could have a material adverse effect on the Group, its business, its financial position, its results, its development or its prospects.

4.5.2. Risks related to authorizations already obtained or procedures underway

4.5.2.1. RISKS RELATED TO THE REGULATORY ENVIRONMENT IN EUROPE – CE MARK

The Group's products are classified in Europe as medical devices and are governed by, inter alia, the provisions of European Council Directive 93/42/EC of June 14, 1993 on medical devices, which harmonizes the conditions for the marketing and free circulation of the Group's products within the European Economic Area.

The products can only be marketed once they have obtained certifications allowing the CE mark, which is valid for five years. The CE mark testifies to the compliance of the medical device with the essential health and safety requirements set by the applicable European Directive and confirms that it has undergone the appropriate compliance assessment procedures.

While the current products have already been granted the CE mark, the products under development will need to undergo the same regulatory procedures and their marketing could be delayed if their CE certifications are not obtained within the required time frame.
Such a situation, if it were to take place, could have a material adverse effect on the Group and its business, financial position, results, development and prospects.

However, the assessment method, which rests on the overall quality system chosen by the Group, gives the process enough flexibility to consider this risk as being low.
Moreover, requests for the renewal of certifications relating to the CE mark require the ongoing conformity of the quality management system (ISO), adaptation to regulatory changes, the update of risk management measures and compliance with the essential requirements of applicable European directives.
ISO 13485 certification is valid for three years and the CE mark for five years. The new certification under ISO 13485:2016 was carried out in July 2018, with the CE mark expanded in Q2 2018 to incorporate the Aixplorer MACH range.

If the Group failed to secure the renewal of the CE certification for its existing products within the required time frame, the marketing of its products would be interrupted pending these authorizations. Such a situation, if it were to take place, could have a material adverse effect on the Group and its business, financial position, results, development and prospects.

4.5.2.2. RISKS RELATED TO THE REGULATORY ENVIRONMENT IN THE UNITED STATES

The U.S. market is governed by Title 21 of the Code of Federal Regulations (CFR), which regulates the marketing of medical devices by imposing pre- and post-market requirements overseen by the Food and Drug Administration (FDA).

The sale of products such as those manufactured by the Group on the U.S. market is subject to an FDA pre-market notification procedure and to the quality system requirements laid down in 21 CFR820. These products are medical devices that present a moderate potential risk (FDA class II), for which it is possible to demonstrate substantial equivalence with a medical device already approved on the U.S. market. The Company can thus use the so-called "510(k)" procedure to submit an application to the FDA. After approval of the application, the medical device is registered in a database kept up-to-date by the FDA.
The Company has already obtained several FDA approvals for its existing products, which cover the quantitative assessment and viewing of tissue stiffness. Of particular note was the specific authorization granted in January 2018 to sell its products for liver diseases.

The Company was inspected by the FDA in November 2014 as part of routine inspections carried out by that Agency. This inspection focused on the evaluation process set up by the Company. No major comments were made against the Company in connection with the inspection. A new routine FDA inspection took place in July 2018. No comments, however minor, were made against the Company.

If the FDA approvals for the Group's existing products were to be managed, or if the requests for approval of the Group's new products were to be rejected by the FDA, the Company would be unable to sell its products on the American market or would have to implement other more lengthy and costly procedures to secure or renew its approvals. Such a situation, if it were to take place, could have a material adverse effect on the Group and its business, financial position, results, development or prospects.

4.5.2.3. RISKS RELATED TO THE REGULATORY ENVIRONMENT IN OTHER COUNTRIES

The marketing of medical products in other countries requires specific procedures in order to obtain the required approvals.

However, there are certification equivalences and recognitions in certain countries (notably Canada, Singapore and Australia). Such equivalences or recognitions are important factors taken into account in the Group's decisions to market its products in a new country.

The Group has already obtained market approval for its existing products in certain countries outside the European Union and the United States, notably Japan, China, Brazil, Russia and South Korea (see Section 6.7.1 of this document).

The Group's failure to secure or maintain the required approvals for its products could have a material adverse effect on the Group and its business, financial position, results, development or prospects.

4.5.2.4. RISKS RELATED TO MALFUNCTIONS IN MANUFACTURING PROCESSES (SUCH AS PRODUCT OR OTHER TRACEABILITY, ETC.)

The Company's products are classified as medical devices and, as such, come under specific regulations in all countries where they are made, tested and marketed. These regulations impose obligations, notably regarding:

- Product design;
- Preclinical tests and clinical trials of the products;
- Product manufacturing, quality control and quality assurance;
- Product labeling, including user instructions;
- Product storage;
- Product identification and traceability;
- Data preservation procedures; and
- Post-market surveillance and reporting of incidents linked to the use of the products.

These regulations apply to the Company as the manufacturer of the products.

The principle of full traceability of all product components, as well as the setup and upkeep by the Company of a certified Quality Management System (QMS) complying with international norm ISO 13485: 2016, as well as an optimized production system (Lean Manufacturing), are designed to guarantee product quality and full compliance of all products with applicable regulations.

However, the Company cannot guarantee that its suppliers or subcontractors always comply or will always comply with applicable regulations at all stages. The notified body, during a certification or follow-up audit, or the regulatory authorities, during an inspection or any other regulatory process, could detect breaches to applicable regulations or standards and require that they be remedied through corrective actions liable to interrupt the manufacturing and supply of the Group's products. The suspension, total stoppage or total or partial prohibition of the activities of the Group's suppliers could significantly affect the Group's business, financial position, results, reputation, development or prospects.

4.5.3. Environmental risks

The Group's activities come under certain environmental regulations concerning hazardous substances and special waste. Until January 2014, the Group's business was outside the scope of the RoHS Directive (Restriction of the use of certain hazardous substances in electrical and electronic equipment) (2002/95/EC) limiting the use of substances that are hazardous to human health and the environment in electrical and electronic equipment. The RoHS Directive was amended and abrogated by Directive 2011/65/EU and now includes medical devices in its scope. In contrast, Directive 2011/65/EU contains special provisions for the application of the Directive in time. These provisions are applicable to ultrasonic transducers of the type used by the Company. The inclusion of medical devices in the scope of Directive 2011/65/EU should not have any impact on the Group before July 22, 2019 for products sold before July 22, 2014 and starting July 22, 2014 for products sold after that date. In addition, the Group already ensures that its suppliers and subcontractors comply with the provisions of Directive 2011/65/EU insofar as this requirement does not affect the essential safety

performance of its products. In this context, the contracts and specifications signed with subcontractors mention the requirement of compliance with the RoHS Directive.

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) is a European Regulation (EC No. 1907/2006) on the evaluation and authorization of chemical substances, and restrictions applicable to such substances (as such or in mixtures and articles). Its objective is to improve knowledge of the uses and risks of the chemicals made or imported into the European Union and ensure the management of the risks linked to their use. To meet its REACH obligations, the Group verifies that the substances contained in products placed on the market are properly registered if necessary and closely monitors the candidate list of so-called SVHCs (Substances of Very High Concern), which is updated regularly by the European Chemicals Agency (ECHA), along with the list of restrictions on the manufacture, placing on the market and use of certain hazardous substances and mixtures and hazardous items contained in Annex XVII of the REACH regulation and undertakes the necessary actions with suppliers to ensure that products placed on the market do not contain such substances in a concentration higher than the specified level. The Group also tracks the SVHC list included in Annex XIV of the REACH regulation in order to ensure that its products are not under threat of a market ban.

The WEEE Directive on Waste, Electrical and Electronic Equipment (2012/19/EU) requires manufacturers to organize and finance the collection, treatment and recycling of their products at the end of their life cycle. Under this Directive, all waste from the Group's equipment and products is reprocessed by a third-party company specializing in this field.

Compliance with these regulations is costly, and any changes would be likely to cause the Group to incur additional costs. Furthermore, any breach by the Group of these regulations may result in penalties or expose it to liability. Such situations would have an adverse effect on the Group's financial position, results, development and prospects.

4.6. INSURANCE AND RISK COVERAGE

The Group has set up a policy to cover its main insurable risks for amounts it deems compatible with the nature of its activities.
The amount of expenses paid by the Group for all insurance policies amounted to €178,000 in 2017 and €150,000 in 2018.

The Group's main policies to date are as follows, all covering the period from January 1 to December 31, and are tacitly renewable:

Risk covered	Coverage limits
Liability of corporate officers:	
Complete coverage	€10 million
Civil liability	
Operating liability	€8 million
Product liability	€7 million
Key-persons covering	€450,000 per event (€150,000 per person)
Aix-en-Provence offices and inventory (2,110 m²):	**€2,520,064.46**
Technical risks	
All IT risks	€245,775
Transported goods	
Maritime shipping purchases	€660,000
Maritime shipping sales	€660,000
Air shipping purchases	€50,000
Air shipping sales	€160,000
Land shipping purchases	€50,000
Land shipping sales	€160,000
Additional expenses for express delivery	€150,000
Exhibitions	€140,000

4.7. LEGAL PROCEEDINGS AND ARBITRATION

On November 22, 2017, Verasonics Inc. ("Verasonics") filed a lawsuit against SuperSonic Imagine ("SSI") in the United States with the Western District Court of Washington State. Verasonics alleges that SSI manufactures, uses, offers for sale and imports its Aixplorer product, which infringes its U.S. Patent No. 8,287,456, U.S. Patent No. 9,649,094 and U.S. Patent No. 9,028,411 and misappropriates Verasonics' "trade secrets" covered by the Washington Uniform Trade Secrets Act. Verasonics is seeking monetary, declaratory and injunctive relief. On June 5, 2018, SSI responded to the complaint, denying that it infringes Verasonics' patents or misappropriates Verasonics' "trade secrets". SSI argues that Verasonics' patents are invalid and therefore rejects Verasonics' claims for financial compensation.

On October 8, 2018, SSI filed a complaint in Washington State alleging that Verasonics manufactures, uses, offers for sale and imports an ultrasound imaging product which infringes U.S. Patent No. 7,252,004. SSI is seeking monetary, declaratory and injunctive relief. On January 24, 2018, Verasonics responded to the complaint, denying that it infringes the patent.

A judgment is expected in September 2020. SSI intends to mount a vigorous defense against Verasonics' claims and to sue Verasonics for the infringement of its patent.

The other ongoing proceeding is described in Section 20.8 and concerns a Chinese distributor.

There were no other governmental, legal or arbitration proceedings, including any proceedings of which the Company is aware, that are pending or threatened, which are likely to have or have had in the course of the last 12 months any material effect on the financial position or profitability of the Company and/or Group.

5. INFORMATION ABOUT THE COMPANY

5.1. HISTORY AND DEVELOPMENT OF THE COMPANY

5.1.1. The Company's registered name and trade name

The Company's registered name and trade name: SuperSonic Imagine SA.

5.1.2. Company registration details

The Company is registered with the trade and companies register of Aix-en-Provence under number 481 581 890.

5.1.3. Date of incorporation and term

The Company was set up on March 10, 2005 for a term of 99 years as from its date of registration in the trade and companies register, i.e. from April 4, 2005 to April 3, 2104, unless dissolved beforehand or extended.

5.1.4. Company's registered office and legal form; legislation ruling its activities

The Company is a French *société anonyme* with a Board of Directors governed by French law, and mainly subject, for its operation, to Articles L. 225-1 et seq. of the French Commercial Code.
The Company's registered office is located at 510, rue René Descartes, Les Jardins de la Duranne, Bât E & Bât F, 13857 Aix-en-Provence Cedex 3, France.

The Company's details are the following:
Telephone: +33 (0)4 42 99 24 24
Fax: +33 (0)4 42 52 59 21
Email: contact@supersonicimagine.com
Website: www.supersonicimagine.com

5.1.5. Significant events in the development of the Group's activities

2005

March Start of the business of the Company, founded by Jacques Souquet, Armen Sarvazyan, Claude Cohen-Bacrie, Damien Dolimier, Georges Charpak, Jérémy Bercoff and Marianne Leven, following the presentation in January of the winning project of the seventh contest to support the creation of innovative technology companies set up by the Ministry of Higher Education and Research, with a prize of €450,000;

August Capital increase of €300,000 and current shareholders' account advance of €200,000 from Auriga Partners and Jacques Souquet; Repayable advance of €50,000 obtained under the IMPULSE program with the support of the Marseille Chamber of Commerce and Industry, three universities (Aix-en-Provence, Marseille and Avignon), the CEA, the CNRS and Bpifrance (formerly OSEO);

October Regional Planning grant (*prime de l'Aménagement du Territoire*) of €550,000.

2006

March First round of fund-raising of €10 million from a pool of investment funds: Omnes Capital (formerly Crédit Agricole Private Equity), Auriga Ventures II, NBGI Ventures and BioAm;

November Innovation grant of €661,000 obtained from the Pôle de Compétitivité Ile de France as part of a collaborative project conducted with Philips and two CNRS delegations (including Laboratoire Ondes et Acoustique), aimed at improving the sensitivity and specificity of medical imaging methods in the diagnosis of breast tumors.

2007

March Opening of a subsidiary in the United States to manage the local network and develop R&D activities;

June Grant of €1.3 million obtained from Bpifrance (formerly OSEO) to finance a €2.7 million prototype development program for clinical research in MRI-compatible High Intensity Focused Ultrasound (HIFU) of the brain; End of year: availability of first manufactured prototypes for breast imaging;

October "Entreprise de l'Avenir" award, Mediterranean region, and Créa13 award (Conseil Général Provence Alpes Cote d'Azur, Eurocopter).

2008

March Opening of a marketing subsidiary in the UK;

April Start of a multi-center study on 17 sites (France, UK, Germany, Italy, United States) on the benefits of ShearWave™ Elastography Technology for breast examination;
Bond issue of €4.0 million subscribed by the first-round investors. These bonds will be converted into shares of the same category as those issued in the second round of financing in October 2008;

Opening of a marketing subsidiary in Germany (Munich);

October Bpifrance (formerly OSEO) grant of €472,000 as part of a €1.2 million program aimed at financing a 3D ultrasound system for the entire breast, in partnership with Helix Medical Systems (Israel); Presentation of the revolutionary Aixplorer® ultrasound imaging system at the Journées Françaises de Radiologie. The system makes it possible

to view the movements of the tissues and quantify their elasticity in real time. Its first clinical application: the diagnosis of breast diseases;
2nd round of fund-raising totaling €26.1 million paid in several tranches with the arrival of new investors (Edmond de Rothschild Investment Partners, Wellington, IRDI/iXO); payment received with respect to the first tranche for €12.8 million, including €4.1 million for conversion of bonds issued in April 2008 (with €0.1 million accrued interest);
CNRS becomes a shareholder in the Company with a €0.5 million contribution via France Innovation Scientifique et Transfert (FIST) following the transfer of patents to SuperSonic Imagine;
Special award from Jury Innovation Santé 2008 (Marseille Chamber of Commerce);

December Funding of €1.6 million provided to the Company by Bpifrance, formerly OSEO (for a project totaling €8.5 million), consisting of €407,000 in repayable grants and €1.2 million in subsidies as part of a €22 million collaborative project (TUCE) conducted with THERACLION for the development of a device allowing the non-invasive removal of parathyroid glands using focused ultrasound;
First orders for the Aixplorer® ultrasound system.

2009

March CE mark obtained, allowing marketing to commence in Europe;

April/June Release of the second tranche of the second round of fund-raising, i.e. €7.3 million, with €3.3 million paid in April and €4.0 million in June;

May Bpifrance (formerly OSEO) funding of €7.3 million obtained (including €5.9 million for the Company, with €3 million in repayable grants and €2.8 million in subsidies) as part of the ICARE collaborative project (€17.2 million) with the French company VERMON for the development of a real-time 3D echocardiogram capable of quantitative analysis of heart mechanics;
1st clinical reference of Aixplorer® in France, Grenoble University Hospital Center;

August FDA 510(k) approval for the marketing of Aixplorer® in the United States;
Autumn Commercial launch of two new clinical applications for Aixplorer®: the abdomen (liver) and thyroid;

October Opening of a marketing subsidiary in Italy;

November Release of the third tranche of the second round of fund-raising, totaling €6.0 million;
Exclusive distribution agreement in Japan with Canon MJ.

2010

January Aixplorer® system sold to the radiology department of the Georges Pompidou European Hospital (Paris) for the early detection of breast cancer and characterization of breast lesions;

February Regulatory approval to market Aixplorer® in Japan;

March Presentation to the European Congress of Radiology (ECR) of the preliminary results of the clinical study on the technological benefit of ShearWave™ Elastography in the diagnosis of breast lesions;

May Sale of 11 Aixplorer® systems to radiology centers in France;

July Regulatory approval to market Aixplorer® in China and Russia;

September 3rd round of fund-raising amounting to €34.6 million with the arrival of new investors (Mérieux Participations, Canon and Innobio). An initial tranche of €23.0 million is immediately released;

October Launch of the prostate diagnosis application;

Presentation at the Journées Françaises de Radiologie of the results of the clinical study on the breast, conducted by the sub-group in France on 321 patients covering 336 lesions;

November Broadening of the range of Aixplorer® probes to 6 applications: breast (and 3D breast), abdomen, prostate, thyroid, gynecology and musculotendinous;
Exclusive distribution agreement (in the field of breast imaging) signed with a leading distributor in the United States;
Public tender won in Russia against one of the major players in the market: 26 Aixplorer® systems dedicated to the liver (detection of cirrhosis).

2011

July Opening of a subsidiary in Hong Kong to support distributors in Asia;

October Launch at the Journées Françaises de Radiologie of UltraFast™ Doppler for vascular imaging combining color flow imaging and flow quantitative analysis through spectral analysis;

December Release of the 2nd tranche of the 3rd round of fund-raising of €10.0 million.

2012

February Publication of the results of the multi-center breast study in the *Radiology* and *European Radiology* journals;

March Presentation of the final results of the multi-center breast study on March 1 at the European College of Radiology Congress in Vienna;
First sale in India;

May Receipt of the balance from the third round of fund-raising, i.e. €1.6 million, which corresponds to the exercise of the warrants held by Canon;

September FDA approval to include a digital scale on the elasticity pictures produced by Aixplorer® and capacity to adjust the scale in terms of pathologies and organs;

October Launch of the V6 platform offering panoramic imaging and a micro-convex probe for use in pediatric radiology.

2013

March/April 4th round of fund-raising totaling €28.1 million, marking the entry of new investors including Bpifrance Participations (formerly FSI). An initial tranche was released in March and April for €14.1 million, including €7 million subscribed by Bpifrance Participations;

May Release of part of the 2nd tranche of the 4th round of fund-raising for €0.3 million;

June Launch of the Aixplorer® V7 platform, which offers the option to connect four probes simultaneously on the product instead of two previously;

July Registration of a representative office in Beijing;

September FDA approval to quantify tissue stiffness directly on the color image representing the tissue stiffness. This measurement can be done in kPa and is available on all transducers (probes) for the Aixplorer® product and all clinical shear wave elastography applications;

November Launch of the V8 platform with the Obstetrics application, which makes it possible to perform measurements on fetal images to evaluate all aspects of growth;
Signing by U.S. distributor of a major contract for 19 Aixplorer® platforms with the Hollywood Memorial Hospital in Florida;

December Bond issue with warrants for a nominal amount of €5.0 million with a maturity of five years.

2014

April The Company's initial public offering on the Euronext Paris regulated market (ISIN code FR0010526814, ticker symbol SSI) through the raising of €54.8 million in funds;
Renewal of listing by the Union of Public Procurement Groups, a major player in public hospital procurement in France;

May Installation of the 25th Aixplorer® in Israel;
Installation of nine Aixplorer® systems at the Paris Institute of Radiology;
Signing of a **three-year agreement with the ROI** (Resource Optimization & Innovation) **procurement center in the United States**, offering easier access to Aixplorer® technology to more than 1,500 members and affiliates;

June Aixplorer® receives the Breakthrough Technology label from the Premier Group in the U.S.;

July Paris Institute of Radiology (IRP) equipped with nine Aixplorer® systems;

September Launch of a clinical study in China to confirm the benefits of SuperSonic Imagine technology for dense breasts and focus on the Asian market specifically.

October Introduction of version V9 of the Aixplorer® product, which includes the musculoskeletal application with a new high-frequency probe and supplements the vascular application that includes a new probe for transcranial Doppler;
Agreement established with the Toulon Rugby Club (RCT) for the musculoskeletal use of Aixplorer® on team players;
Development agreement with Canon in photoacoustics;

November FDA approval to market the V9 version of Aixplorer® in the U.S.

December Delivery of the thousandth Aixplorer® ultrasound system.

2015

January Exclusive distribution agreement with Konica Minolta to distribute the Aixplorer® in Japan;
First attendance at the Arab Health trade show;

February Partnership with Unetixs Vasculars, the leader in vascular diagnostic equipment in the United States;

April Announcement of the clinical results of a multi-center retrospective study analyzing the performance of ShearWave™ Elastography for the non-invasive assessment of chronic liver diseases;

September Launch of the XC6-1 single crystal curved probe for the Aixplorer® ultrasound device, providing unparalleled performance levels and image quality, achieved in particular as a result of large bandwidth;

November Clinical study in China to confirm the benefits of ShearWave™ Elastography in breast cancer screening in Asian women.

2016

March Signing of an exclusive distribution agreement with Sandhill in the United States to market the Aixplorer in the fields of hepatology and gastroenterology;

May SWE for breast imaging is classified as a new technology by the South Korean Health Ministry;

July Finalization of the establishment of a WFOE ("Wholly Foreign Owned Entity" = Subsidiary) in China, which means it can directly bid for government tenders and directly bill after-sales services;

October Release of Aixplorer V11 including:

- A new high-frequency probe (SL 18-5) for the breast;
- A full line of probes that are optimized for breast examination (SL18-5, SL10-2, SLH20-6, SLV16-5);
- ANGIO PL.U.S. with the XC6-1 curved probe for abdominal vascular scans;
- New TriVu mode simultaneously combining in real-time B-mode imaging, SWE and color Doppler mode;
- Navigation/Fusion Module;
- Expanded communication capabilities thanks to a WIFI module enabling wireless interfacing using DICOM;

September Delivery to Canon of a next-generation ultrasound module for incorporation into a photoacoustic system developed by Canon;

November SuperSonic Imagine gets regulatory approval from the FDA for V11 of its Aixplorer product;

December Presentation of the clinical results of the breast study in China on a cohort of 2,300 patients to the annual meeting of the Radiological Society of North America in Chicago;
SuperSonic Imagine obtains ISO 14001 certification.

2017

January Finalization of a €12 million loan with Kreos and payment of the first €6 million tranche;

March Introduction of a new high resolution probe for the breast, SL18-5, as well as a full breast imaging pack;

June €11.5 million capital increase;

July Launch of the Aixplorer V12 and the new Aixplorer Ultimate with a basic cardiac pack;

December Payment of the second €6 million tranche of the Kreos loan.

2018

January FDA validation (510K clearance) obtained for claims for the use of Aixplorer in liver disease (fibrosis, steatosis, NASH, etc.);

April Marketing launch of the new Aixplorer Mach 30 platform;

May Replacement of the Company's governance structure with a Board of Directors at the Shareholders' Meeting of May 28, 2018;

June FDA 510k clearance obtained for Aixplorer MACH 30;

July CE mark obtained for Aixplorer MACH 30;
FDA inspection;

September Delivery of the first Aixplorer MACH 30 systems;

October Unveiling of the Aixplorer MACH 30 at the Journées Françaises de Radiologie;

December Finalization of a €12 million loan with Kreos and payment of the first €6 million tranche;
€2 million loan agreed with Bpifrance.

5.2. INVESTMENTS

5.2.1. Major investments over the last two financial years

The investments for this period break down as follows:

In thousands of euros	31 Dec.18	31 Dec.17
Acquisitions and production of intangible assets	(5,730)	(6,391)
Acquisitions of property, plant and equipment	(947)	(3,717)
Receipt / disbursement of financial assets	19	(53)
Receipt of research tax credit allocated to capitalized R&D expenses	2,077	2,181
Total	**(4,581)**	**(7,979)**

The largest investment cost item is related to intangible assets, which themselves consist mainly of R&D costs capitalized in respect of the Aixplorer® versions (V12 and Ultimate in 2017), the new Aixplorer MACH platform and the probes allowing the enhancement of the clinical applications addressed.

5.2.2. Main investments underway

Investments in 2019 mainly comprise additional R&D costs relating to the new platform, as well as the platform's industrialization costs. In mid-2018, the Group embarked on a project to replace its ERP system. The new system will be rolled out in 2019.

5.2.3. Main investments planned

The Group plans to continue investing in R&D for future versions of the new platform and to finalize the rollout of its new ERP in 2019.

6. OVERVIEW OF THE GROUP'S ACTIVITIES

6.1. KEY EVENTS OF 2018

This chapter gives an overview of the major developments of 2018. The major developments in 2019 up through the date of this report are listed in Chapter 12.1.

- Intellectual property and clinical indications

The Group is continuing its clinical investment in China with two ongoing thyroid and musculo-tendon studies. In France, a clinical study began at two sites (Beaujon and Necker) on the assessment of new biomarkers for the liver (viscosity, attenuation and ultrasonic speed). A similar study has been launched in Israel with the MAR group, involving several clinical sites in the country.

- Commercial sphere

As part of the release of its new Aixplorer Mach 30 platform, the Group has introduced an innovative user interface, replacing the trackball with a multitouch touchpad (SonicPad™). The SonicPad increases patient workflow by reducing the movement of the user's hand on the control panel by 77%, allowing the clinician to focus on the image (and thus the examination) and patient, rather than on the interface buttons.

In January 2018, SuperSonic Imagine obtained 510(k) clearance from the FDA, validating its technology for liver disease claims.

- Corporate governance

Transformation of the Supervisory Board into a Board of Directors and names of the Board members
The Shareholders' Meeting of May 28, 2018 voted to change the Group's governance structure from a Supervisory Board and Management Board to a Board of Directors.

At December 31, 2018, the members of the Board of Directors were: Michael Brock, Chairman of the Board of Directors; Philippe Boucheron, representing Bpifrance; Thierry Chignon, representing BioMerieux Partners; Guy Frija, independent director; Danielle Guyot-Caparros, independent director; and Alexia Perouse, independent director.

6.2. MS. MICHÈLE LESIEUR, WHO WAS PREVIOUSLY CHAIRMAN OF THE MANAGEMENT BOARD, WAS APPOINTED CHIEF EXECUTIVE OFFICER.

GENERAL OVERVIEW

6.2.1. Introduction

Medical imaging is a growing industry within which a range of products are on offer: X-rays (conventional and CT Scans), MRI, nuclear medicine (PET scan) and ultrasound imaging systems.

Currently, the market is concentrated around approximately ten players including several of the heavyweights in the global industry, such as General Electric, Philips, Siemens, Canon, Hitachi and Samsung. We are also beginning to see the emergence of Chinese players such as Mindray and United Imaging Healthcare (UIH) on the market.

Sonography (or ultrasonic waves) has the advantage of being both non-ionizing (that is to say, without emission of radiation) and thus less invasive for the patient (hence its early use in obstetrics) and of operating in real time, as well as offering a financially attractive solution compared with other technologies used by professionals.

SuperSonic Imagine is active in sonography, a field of medical imaging with strong potential that offers numerous advantages compared with other imaging techniques.

Ultrasound has undergone the following advances:

- **first analog generation in the 1970s;**
- **second generation with the digital era in the 1980s, responsible for bringing Doppler to market to measure blood flow velocity.**

The transition from analog to digital was accompanied by a significant improvement in performance, which truly made it possible to diagnose on the basis of images and not only guide a biopsy to diagnose a medical condition. Ultrasound imaging has become an indispensable instrument for the diagnosis of many diseases such as cancer or vascular and heart diseases.

SuperSonic Imagine, backed by the considerable experience of its management, is now entering this market by introducing the third generation of ultrasound technologies through Aixplorer®, an entirely software-based architecture. Ultrasound imaging, where advances used to occur frequently, has been experiencing slower evolution due to fixed hardware architecture. As a result, innovation in the 2000s focused solely on miniaturization, which created new markets for ultrasound imaging, such as emergency room medicine, anesthesiology and sports medicine. The Company estimates that the revolutionary Aixplorer® architecture is the first innovation in the field for over 15 years.

The software architecture developed by SuperSonic Imagine has capabilities superior to conventional ultrasound. The benefits for the customer are as follows:

- new imaging techniques that offer both improvements to existing imaging techniques and new diagnostic capabilities compared to conventional ultrasound;
- significant extension of the life of ultrasound devices, which allows them to use the latest technological innovations through a simple software update, rather than switching expensive circuit boards with planned obsolescence components.

These innovations allow it to revive the innovative tradition of a high-end market and open new medical specialty markets (such as hepatology and urology) previously not served by ultrasound, thanks to excellent diagnostic performance. In addition, these technological innovations are expanding the applications of imaging from diagnosis to screening and therapeutic monitoring and are competing with other traditional imaging products such as MRI and CT scanners, but at much lower prices. The Company believes that **the next generation sonography it offers thus represents significant value creation for the entire medical imaging industry.**

6.2.2. SuperSonic Imagine's decisive competitive advantage: a considerable contribution to the traditional ultrasound imaging market

Ultrasound imaging has become an imaging technique extensively used worldwide. It accounts for around 25% of the medical imaging market, alongside scanners, MRI, X-ray and nuclear medicine imaging.

However, traditional ultrasound imaging is presently affected by limits in terms of image clarity and results, which depend considerably on the person conducting the examination and are therefore sometimes difficult to use and not reproducible.

The Aixplorer® system is based on a 100% software architecture that is considerably more flexible than architectures based on hardware of existing ultrasound scanners for which signal processing is set in integrated circuits in electronic boards. Aixplorer® is the **only** product on the market that made this choice of technology, which is patented and has the following major innovations:

- The ability to acquire ultrasound imaging data at very high frame rates: **UltraFast™ technology captures more than 20,000 images per second, compared with 500 images per second for the fastest conventional ultrasound. This performance makes it possible to display fast transient tissue movements or rapid changes in blood flow that cannot be captured by conventional ultrasound imaging**;
- The ability to provide a significantly higher image quality, **increasing diagnosis confidence while offering a degree of user-friendliness that is far more comfortable for the physician**;
- The use of a new type of wave: **shear waves. Measuring the speed of the shear wave**, or ShearWave™ Elastography, makes it possible to measure tissue stiffness. **This measurement provides radiologists with unprecedented information about the pathophysiology of an organ, which improves the effectiveness of their diagnoses. The Company believes its ShearWave™ Elastography technology is unique because it allows tissue stiffness (elasticity) to be quantified in real time, in a non-invasive, reproducible manner that is independent of the user's expertise. SWE has become a new de facto biomarker for assessing liver fibrosis**;
- A major innovation in the field of Doppler imaging: **UltraFast™ Doppler. Thanks to its ultrafast acquisition principle, this new Doppler approach makes it possible to provide a color map of blood flow and measure blood flow velocity at all points on the color map without having to make a specific acquisition for this measurement. This saves a significant amount of time and considerably reduces examination time**.

The main players in the market have also sought to develop an elastography functionality to assess the differences in tissue stiffness and to provide an image of elasticity – information that has traditionally been evaluated by manual palpation. However, the tissues can only be measured on a much reduced area, the measurements are not in real time and the reproducibility of the method is low.

6.2.3. Numerous advantages

- **A sizable and growing global market**

The global market for ultrasound medical imaging was estimated at USD 7 billion in 2018 (Source: IHS Markit). Average annual growth is estimated at 2.8% per year between now and 2021. Since 2016, SuperSonic Imagine has positioned itself specifically in the breast and liver specialty markets, while continuing to be a major player in the Premium and High-end segments of the radiology market (multiple organs). These combined markets are potentially worth USD 4 billion.

- **A revolutionary ultrasound system protected by a strong patent portfolio**

A solid portfolio of patents broadly covers both ShearWave™ Elastography imaging and the use of ultrasound in imaging and therapeutic domains, as well as various patents related to the core of the technology. To date, the Company owns or co-owns 32 submitted and published patent families and holds five licensing agreements (see Section 11.2 of this document for details of patents and patent applications).

- **Strong clinical validation based on numerous studies**

The technological contribution of Aixplorer® is backed by strong clinical validation based notably on the results of a wide-ranging program of studies, including a major international multi-center study in the field of breast cancer (17 sites, 1,800 patients in Europe and USA; 20 sites, 2,262 patients in China), the results of which were published in the prestigious scientific journals Radiology and European Radiology in February 2012. Numerous other studies in various fields of medical application (liver, thyroid, prostate, etc.) have been conducted in France and internationally. To date, there are more than 600 scientific publications validating the role of Aixplorer® in the diagnostic strategy for many organs (breast, liver, prostate, muscle, thyroid).

The support of KOL (Key Opinion Leaders) within the radiology community and within each of the medical specialties addressed by Aixplorer® constitutes a determining factor in its potential for deployment. Thanks to the influence they have vis-à-vis their peers, and in view of their positions within professional societies (SFR – Société Française de Radiologie, RSNA – Radiological Society of North America), the recommendations of these parties carry strong weight with regard to the clinical developments of the sector concerned.

- A robust framework for acceleration of its commercial deployment since 2012

The Group has strong business advantages, which are recognized by the market:

  - Regulatory authorizations covering the main markets;
  - Unparalleled value for money, given the exceptional clinical benefits;
  - A global distribution network, both direct (in France, China and the United States) and indirect;
  - An international installed base of more than 2,300 systems;
  - Outsourced production in order to have the capacity to respond to commercial ambitions.

- **One of the best management teams in the industry**

In a global market concentrated around a few large players, the Company has managed to market an innovative ultrasound device and open a new era in ultrasound imaging. This challenge was met thanks to an extremely experienced, international and multidisciplinary management team that currently oversees a team of 179 very highly qualified employees.

6.2.4. An ambitious development strategy to impose its added value among the leading players of the high-end market

SuperSonic Imagine's offer represents a strong added-value proposal for all players in the healthcare chain:

Advantages for patients:

- Non-invasive and non-ionizing examination (unlike X-rays);
- Improved treatment management thanks to a more precise diagnosis, early detection and appropriate therapeutic follow-up.

Advantages for physicians/radiologists:

- Improving the clinical care of their patients by strengthening the diagnostic relevance of the medical corps (radiology and specialist physicians) for better treatment management;
- Visualizing and quantifying tissue elasticity reliably and reproducibly to improve diagnosis;
- Differentiating themselves from their peers with cutting-edge technology.

Advantages for healthcare establishments:

- Giving the appearance of an expert center with the latest technologies;
- Attracting a clientele seeking the best medical practices;
- Improving the diagnostic performance of the establishment and contributing to its good reputation.

Advantages for players in the health system:

- Standardization and simplification of diagnostic processes;
- More reliable and earlier detection of cancers;
- Significant reduction in the number of unnecessary invasive procedures through optimized targeting of samples and immediate interventions;
- Reduced healthcare costs;
- More appropriate therapeutic decisions thanks to more reliable and rapid diagnostic information.

In light of these facts and its numerous benefits, SuperSonic Imagine plans to establish itself among the leading players in the Premium and High-end segments of ultrasound imaging by implementing a well-defined strategy of specialization:

- In terms of markets: the Group will continue the mass-market deployment phase it began in 2012 by expanding its direct sales network (particularly in the USA) and managing a worldwide network of distributors, focusing particularly on China;
- In terms of products: through its innovation policy, the Group will seek to consolidate its major technological advances and expand its range of specialized probes and software to optimize the spectrum of applications covered by the Aixplorer® and Aixplorer MACH 30.

6.3. SUPERSONIC IMAGINE OPENS A NEW ERA IN SONOGRAPHY

6.3.1. Existing elastography systems and their limitations

- **Ideas on tissue elasticity**

A key factor in the diagnosis of many pathologies is therefore the evaluation of the tissue stiffness. For centuries, this evaluation was made by manual palpation. More than 5,000 years ago, Egyptian physicians were already palpating different parts of the body to assess their elasticity. They knew that the detection of a hard mass within an organ was often associated with the existence of an anomaly. Since then, palpation has always been used for screening and diagnosis, and also, during a procedure, for guiding the surgeon to the pathological area.
A new imaging technique called "elastography" was developed in ultrasound in the early 2000s. It uses ultrasound to provide an elasticity image in order to estimate the differences in hardness between tissues, which were historically diagnosed by palpation. The main objectives of elastography are to refine diagnosis and to improve the specificity of an ultrasound scan.

Over the past decade, elastography has gone from being a major research topic in the medical science community to a mode present on all ultrasound systems and whose use is now documented in many international guidelines for many diagnostic applications from diagnosis of breast cancer to the extent of the degree of liver fibrosis, the estimation of the mechanical properties of the arterial walls, or imaging of myocardial elasticity.
All the approaches currently in existence rely on the same three steps:

- Generating a low-frequency vibration in the tissue which produces a shear constraint;
- Imaging the tissue to analyze the effects of the constraint (ultrasound or MRI);
- Determining tissue stiffness on the basis of this analysis.

These techniques are, for the most part, limited to an estimate of the distortion when pressure is applied to the tissue and allow contrast imaging of stiffness, but this estimate remains a qualitative and poorly reproducible evaluation due to the manual intervention for the application of the deformation.

- **The limitations of current elastography techniques**

The different elastography techniques are usually ranked according to the type of vibration applied to the tissue:

  - **Static elastography:** a uniform compression is applied by the operator to the surface of the body to produce tissue deformation. The calculations are carried out by the device, which displays the deformation induced in the plane of observation. The value of Young's modulus cannot be deduced, since the value of the constraint within the tissue itself is not known. Consequently, static elastography is not a quantitative imaging mode. Its clinical relevance has been abundantly studied. Although promising results were recorded, the users pointed out numerous snags, such as the absence of quantitative data, low reproducibility, and inter-operator variability;
  - **Dynamic elastography:** the tissue is continuously subjected to a monochromatic vibration. Stationary induced mechanical waves are used to determine tissue elasticity. Dynamic elastography is well suited to MRI because the vibrations to be analyzed do not change over time and must be processed in volume. Although quantitative, it suffers from

the traditional drawbacks of MRI imaging, which remains expensive and difficult to access, and does not provide real-time imaging.

For two years now, products have appeared on the market that offer a technology inspired by shear wave elastography but with certain limitations, since the measurement can be done only in an area limited to a few millimeters within the tissue. Moreover, these measurements are not in real time and reproducibility is low.

The Aixplorer® system thus remains the first and only ultrasound system to allow real-time viewing of shear wave elastography, which is the only true imaging method for exact tissue elasticity to date.

6.3.2. SuperSonic Imagine adds technological breakthroughs to its platform that send shock waves through the world of ultrasound imaging

With its Aixplorer® product, SuperSonic Imagine is changing the rules of the game for ultrasound imaging. Aixplorer® was developed on the basis of a revolutionary technology that uses a **100% software-based architecture**: the numerous traditional circuit boards that used to be involved in the formation of the ultrasound beam and the conversion into images are replaced by a 100% software-based architecture, produced by combining the most advanced video game techniques (graphics processor) and the latest generation multi-core processor, providing maximum processing power, precision and flexibility.

Whereas the traditional architectures incorporated up to 20 circuit boards for processing multiple successive bursts of waves (from 128 to 256) in order to then reconstruct an image, the architecture designed by the Company comprises just one NVIDIA graphics card (video game graphics processor), as well as a very fast data bus (PCI Express technology) capable of transferring enormous volumes of data to these computers, driven entirely by a proprietary software developed under Linux, named "SonicSoftware". The image processing capacity is multiplied by a ratio of 1 to 200, allowing an ultrasound image to be reconstituted from a single burst of waves. The Company will also be able to take advantage of future rapid advances in the video game industry.

Based on this unique technological platform, Aixplorer® offers a number of innovations built around UltraFast™ imaging.

UltraFast™ imaging is a patented technological breakthrough that allows Aixplorer® to acquire data at speeds of up to 20,000 Hz (20,000 images/second), about 200 times faster than a traditional ultrasound, providing higher performance conventional imaging modes (B-mode, contrast) and an innovative approach to Doppler with exceptional image quality and sophisticated features. This technology serves as the basis for a range of innovations. The main ones are described in the following paragraphs.

6.3.2.1. SHEARWAVE™ ELASTOGRAPHY

ShearWave™ Elastography has been developed to improve the reliability of diagnoses made using sonography, making it possible to quantify objectively and in real time the elasticity (or stiffness) of tissue, an essential clinical parameter for diagnosis as often related to pathology.

- **Principles of operation of ShearWave™ Elastography**

The development of the ShearWave™ technology has allowed the creation of a new ultrasound imaging mode that displays elasticity maps (in kilopascals) in real time, providing important information about the elastic properties of the tissues, as illustrated in Figure 1 below.

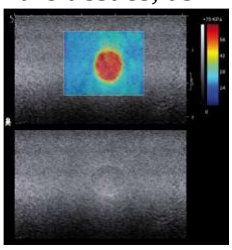


Figure 1: SWE mode on a phantom with a harder inclusion

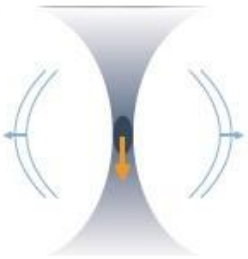
The elasticity image, which is color-coded, is superimposed on the B-Mode image (anatomical image). By default, blue colors indicate a softer tissue and reds a harder tissue, although the color coding can be modified by the user. The image resolution is around 1 mm. The imaging frame rate is optimized to meet acoustic output limitations defined by international standards. The image does not allow objects linked to compression or to any variation of elasticity inside or at the surrounding tissue level to appear.

ShearWave™ Elastography uses ultrasound both to generate shear waves and to image their propagation. All of this is done automatically with the aid of an ultrasound probe (linear, curved, micro-convex or phased array), without any compression by the radiologist, and this means that the captured data is objective – since it does not depend on human manipulation – and is therefore reproducible for the purposes of assessing the evolution of a lesion over time.

- **Generation of the shear wave**

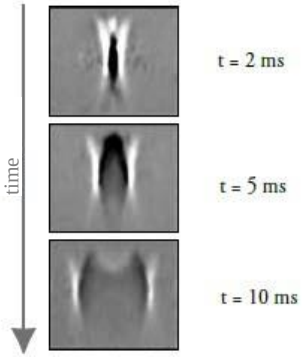
There are several ways of generating shear waves in the body. The beating of the heart is a natural source of such waves, but the induced vibration remains confined to the area immediately surrounding the heart. External vibrators can also be used (as in MRI Elastography), but this solution is ill-suited to the ultrasound imaging environment, since the radiologist must carry a device that is far too heavy. ShearWave™ Elastography leverages the radiation force of ultrasound waves as a source of shearing.

This force, which can be viewed as an acoustic wind, pushes the tissues in the direction of propagation of the ultrasound wave. An elastic environment such as human tissue reacts to this push with a rebound force in the opposite direction, thus creating a mechanical vibration and, more specifically, shear waves which propagate transversely in the tissue.



The diagram opposite illustrates the radiation force induced by a focused ultrasound beam. The tissues are pushed mainly in the focal zone, inducing a transverse shear wave.

As shown by the photos opposite, focused ultrasound beams induced at the center of the image can thus be a source of shear waves. However, these waves are of low intensity, fading away a few millimeters from the propagation site, and the tissue vibrates no more than a few microns. The generation of more intense shear waves would require a large input of acoustic energy at the focusing point, which could cause problems of the probe overheating and of exceeding the acoustic output standards.



- **A supersonic vibration**

SuperSonic Imagine has developed and patented a vibration mode named SonicTouch™ which makes it possible to generate intense shear waves without any overheating problems and without exceeding acoustic power standards. This acoustic radiation force produces shear waves that move within the tissues at supersonic speed (faster than the waves that are generated).

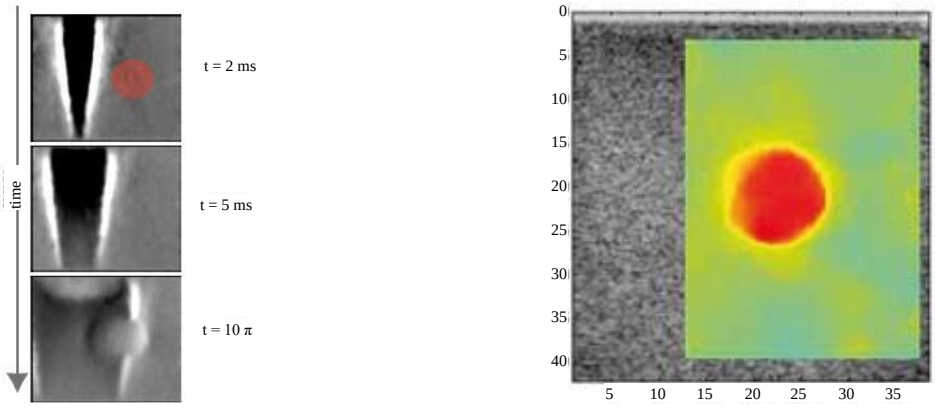
For a given local acoustic power, SonicTouch™ enables an increase in the efficiency of shear wave generation by a factor of 4 to 8. However, it is clearly impossible for current radiology ultrasound imaging systems, limited to frame rates of 50 to 60 images per second, to capture the generated shear wave, which will have disappeared in the time needed to acquire a single frame. Only UltraFast™ imaging, combined with the computing power resulting from a 100% software-based architecture, allows this shear wave to be captured, thanks to an acquisition rate of several thousand images per second, around 200 times higher than that offered by current conventional technology.

Radiation force created by SonicTouch™. The shear wave is amplified along a Mach cone (yellow). The distance traveled is increased, thus minimizing the acoustic energy used.

- **UltraFast™ Imaging**

UltraFast™ imaging is used to obtain extremely precise monitoring of the shear wave passing through the plane of observation: the propagation of the shear wave induces small tissue displacements which are recorded by the UltraFast™ acquisition system. It is thus possible, based on the film of the particle displacements induced by the shear wave, to obtain an excellent representation of the wave propagation.

The photos below left show the plane shear wave induced by SonicTouch™ in an environment containing a harder inclusion (red circle). The shear wave-front is deformed because the shear wave travels faster in the harder inclusion.



The image above right shows a map of the local propagation speeds of the induced wave, reproduced in the photos on the left by cross-correlation algorithms.

With or without multi-line capacity, the current traditional ultrasound scanners have a series architecture, with the images being reconstructed sequentially from several wave transmissions. Ultra-fast imaging is a radically different approach: an ultra-fast imaging system is capable of processing in parallel, rather than in series, as many lines as necessary, and can calculate a complete image on the basis of a single transmit pulse, irrespective of the size of the image or other parameters. In this type of system, the image rate is not limited by the number of reconstructed lines. Ultra-fast imaging therefore allows a significant increase in the maximum image rate of an ultrasound scanner.

The constraint of UltraFast™ is that the beam former must be constituted by an architecture whose parallelism allows an entire image to be covered in each insonification.

This was made possible with the fully software-based platform developed by the Group, whose design required the following two technological barriers to be overcome:

- The transfer rate from the acquisition module to the processor must be several Gigabytes per second. The radio frequency (RF) signals are transmitted directly to the central unit (CU), and the transfer rate for producing the image in real time must be very high;
- The processor must be sufficiently powerful to form the beam in real time. For example, an image in B-Mode requires 1-2 billion operations per second (multiplications and additions).

Aixplorer® is the first system on the market to enable ultrafast imaging, which overcomes the compromise in conventional ultrasound between imaging speed and the number of lines on the image and is an advanced technology comparable to what is seen in digital television.
The shear wave elastography developed by the Group is thus currently the only one to:

- **Provide a quantitative real-time image of tissue stiffness that is independent of the user's knowledge and is reproducible;**
- **Be approved by the FDA to date, in order to quantify tissue stiffness directly on the color image and for all probes and all applications.**

6.3.2.2. ULTRAFAST™ DOPPLER AND ANGIO PL.U.S DOPPLER GO BEYOND THE LIMITS OF CONVENTIONAL DOPPLER MODES

UltraFast™ Doppler, which is incorporated into Aixplorer®, is the result of a marriage between ultra-fast imaging and Doppler techniques. It combines the advantages of color Doppler and pulsed Doppler as described earlier, without the respective disadvantages of each of these modes (a color

Doppler mode with low temporal resolution, and a pulsed Doppler mode added to the standard examination and increasing its duration when quantitative blood-flow information is desired).

- **Ultra-fast imaging applied to flow quantification**

UltraFast™ imaging innovation has provided the opportunity to overcome the limitations of each of the conventional Doppler modes and revolutionize the approach to flow analysis by merging color Doppler and pulsed Doppler into a single acquisition: UltraFast™ Doppler, thus opening new perspectives in vascular imaging.
Thanks to its high-sensitivity/high image rate ratio, the UltraFast™ Doppler simultaneously allows:

- High-quality viewing of complex and transient flows; and
- The quantification, then comparison of the flow speeds from spectra from different areas of the same image,

which helps to significantly simplify the conducting of Doppler examinations and greatly reduces their duration. The characteristics and capabilities of the new UltraFast™ Doppler mode are evolving rapidly and will undoubtedly improve its clinical usefulness for taking Doppler imaging even further.

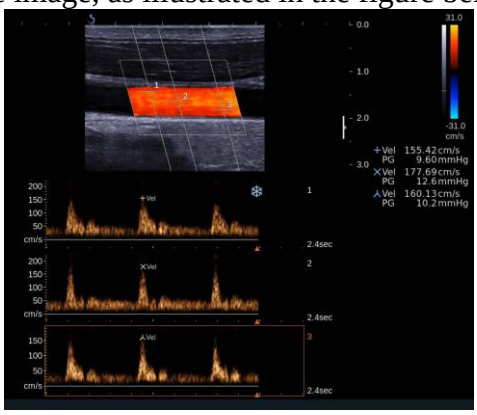
- **Improved color imaging**

The UltraFast™ Doppler acquisition provides the user with many advantages in comparison to color Doppler acquisition:

- The generated color data clips have a high sensitivity and an imaging frame rate up to 10 times superior to conventional systems;
- The increase in quality is obtained while retaining a color box of the same size, whereas conventional systems require the user to choose between frame rate and size. The use of plane waves thus makes it possible to obtain information about the whole of the color box without any loss of frame rate;
- The flow information is consistent and synchronous throughout the image, since the Doppler signals of each pixel are acquired at the same point of the cardiac cycle. The signals of traditional color Doppler lines, on the other hand, are acquired sequentially, producing a time offset of up to several hundred milliseconds between one side of the image and the other.

- **Quantification of flows at all points**

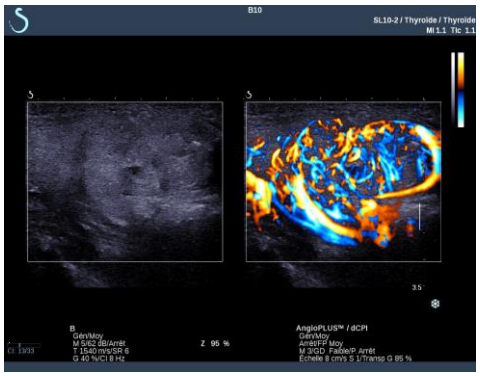
Ultrafast™ Doppler also allows full quantification of flows at all points of the image. The user can position a sample volume anywhere in the color box and the system instantly displays the pulsed spectrum of the selected area. Three Doppler spectra from different points can then be calculated and displayed simultaneously on the image, as illustrated in the figure below:



Simultaneous analysis of three sample volumes under UltraFast™ Doppler

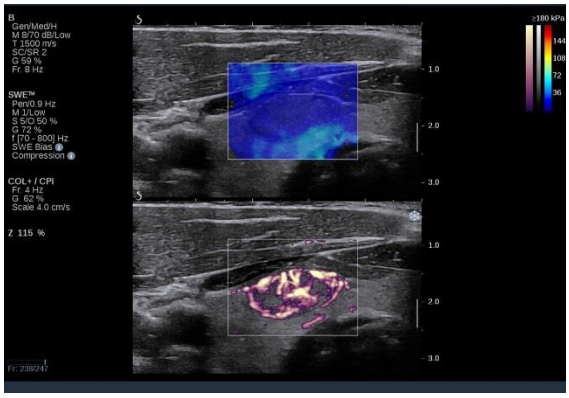
- **ANGIO PL.U.S. mode**

ANGIO PL.U.S. mode is a new Doppler mode using UltraFast™ Doppler combined with an innovative new filtering approach that makes it possible to visualize slow flows in microscopic vascular structures. This new technique should mean that in certain circumstances ultrasound contrast agents can be dispensed with.



- **A new information visualization mode: TriVu™**

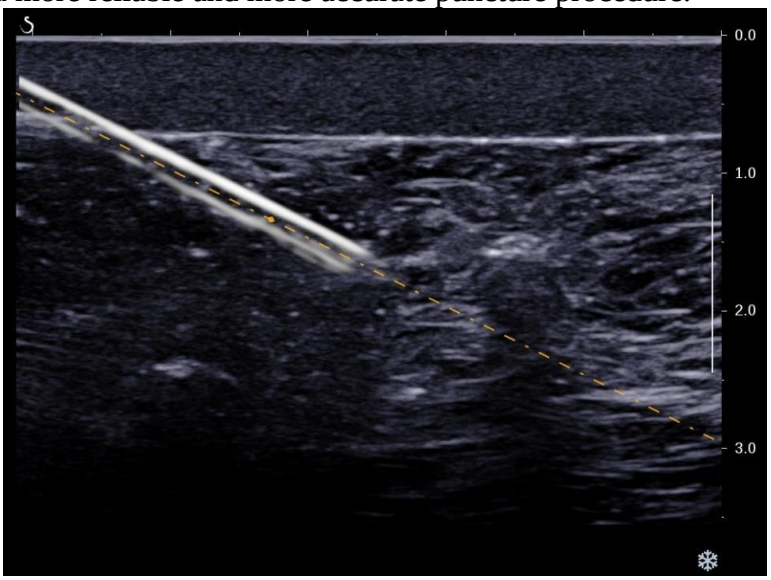
Thanks to the ultra-rapid acquisition of ultrasound information, it was possible to create a new triple visualization.
This new TriVu™ mode provides real-time simultaneous visualization of B-mode morphological information with stiffness (SWE) and flow (CFI) functional information. It is the first real-time mode ever to make it possible to simultaneously visualize three different types of information on the human body. This allows quicker, more accurate and more robust diagnosis of diseases in particular involving the breast, liver and thyroid.



Trivu: Simultaneous and real-time display of B-mode, SWE and Angio PL.U.S™

- **Needle PL.U.S™: Visualize the biopsy needle in real-time for more reliable and more accurate puncture**

Once more building on the platform for the ultra-rapid acquisition of ultrasound information, a new mode was developed to overlay the biopsy needle in a much clearer manner than on a conventional image. This allows a more reliable and more accurate puncture procedure.



6.4. THE MARKET AND ITS PLAYERS

The global medical imaging market (all modalities combined) is worth €80 billion, with double-digit growth forecast over the next decade (Xerfi study). The share of the ultrasound imaging segment increased by 12% over the period. This was primarily driven by technological innovations integrated

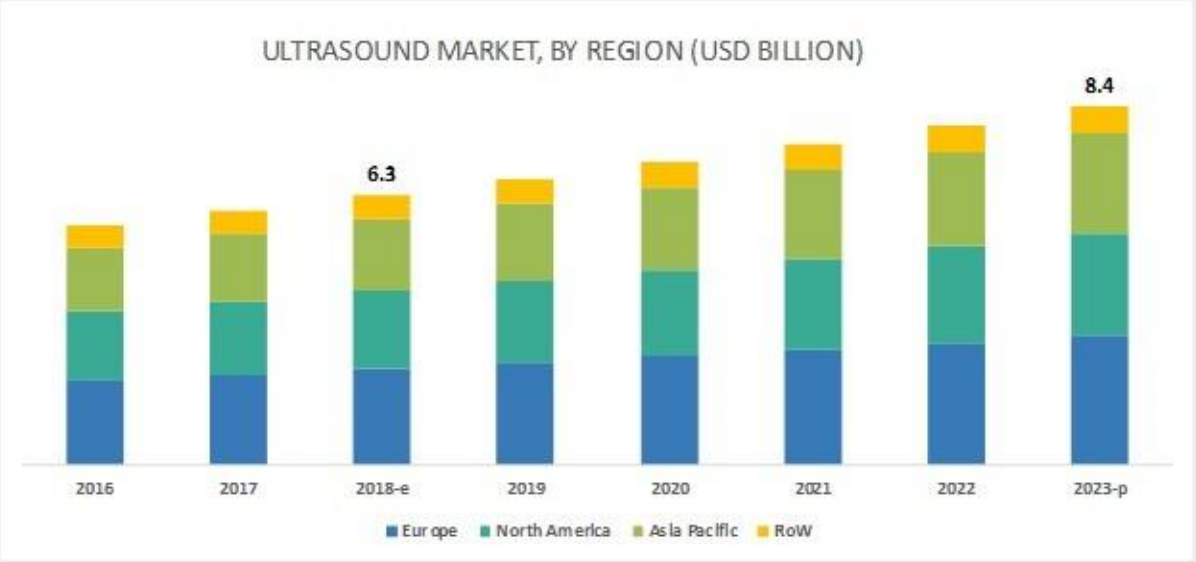
with ultrasound, as well as the aging population and the growth of emerging countries, where universal access to healthcare is becoming a priority.

Valued at USD 6.3 billion in 2018, the market for ultrasound equipment is expected to rise to USD 7.8 billion in 2021, representing average annual growth of 2.8%. This market is concentrated around approximately ten players, including several global industry heavyweights such as General Electric, Philips, Canon, Hitachi and Siemens. In 2018, the five manufacturers mentioned accounted for 76% of the market for ultrasound equipment.

6.4.1. Within the fast expanding sonography market, Aixplorer® is now serving the premium/high-end breast and liver specialty market

6.4.1.1. A GROWING ULTRASOUND MARKET

The global ultrasound imaging market is showing growth in each of the three main geographical areas (Asia-Pacific, EMEA and the Americas) between 2018 and 2021.



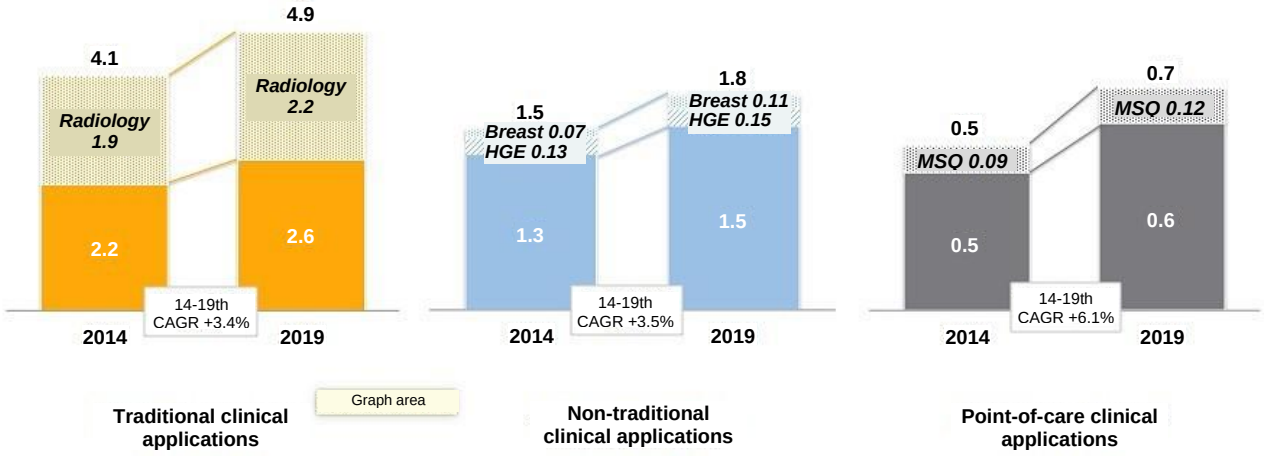
The geographical distribution of the ultrasound market is relatively balanced between the three main geographical areas of Europe, the United States and China, which together account for 67% of the total market.
According to the IHS Markit report, the breakdown of revenue by geographical region is likely to remain relatively stable between now and 2022. However, the emerging markets, particularly China, are showing strong growth (+5.7%).

1,2 source : IHS Markit, "The Global Ultrasound Equipment Market 2018"

6.4.1.2. AIXPLORER® SPECIFICALLY ADDRESSES THE BREAST AND LIVER MARKETS

The range of clinical applications for ultrasound imaging covers a number of areas, most of which are traditional applications. In fact, cardiology, gynecology and radiology represent a combined 67% of the total market. Valued at USD 4 billion in 2018, these clinical applications are expected to rise to USD 4.9 billion in 2022, representing average annual growth of 3.4%.

The Aixplorer® and Aixplorer MACH 30 mainly address the breast and liver markets, which are non-traditional applications. Out of total revenue of USD 6.2 billion in 2018, non-traditional applications accounted for USD 1.5 billion (24%), with breast imaging USD 75 million and gastroenterology (HGE) USD 133 million.
The breast market is expected to grow to USD 105 million in 2022, representing a compound annual growth rate of 7.1%. The liver market is expected to grow to USD 145 million in 2022.



6.4.1.3. AIXPLORER® AND AIXPLORER MACH® ARE POSITIONED ON THE PREMIUM AND HIGH-END SEGMENTS OF ULTRASOUND SCANNERS IN RADIOLOGY

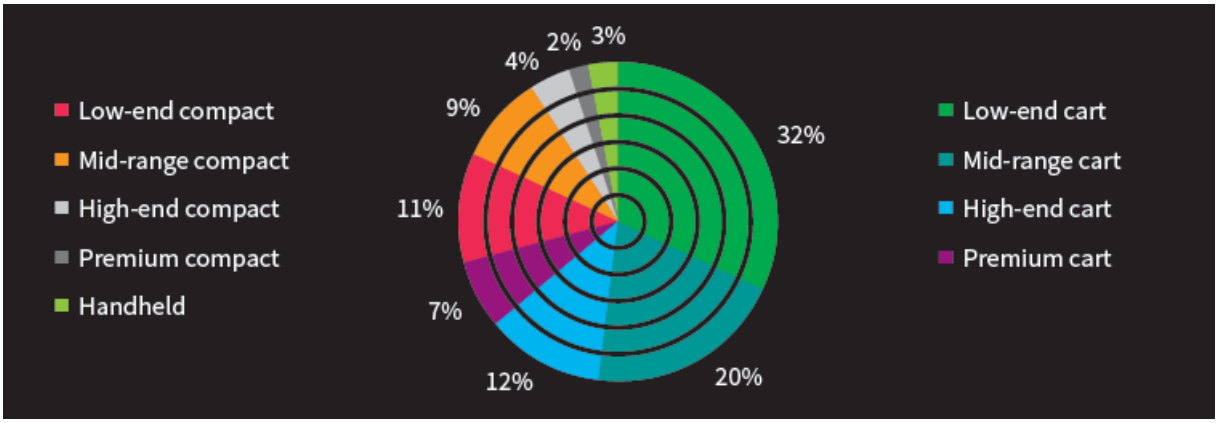
The ultrasound medical imaging market breaks down into four main segments, which are defined according to the unit value of an ultrasound scanner:

Premium: above USD 120,000;
High-end: between USD 60,000 and USD 120,000;
Mid-range: between USD 30,000 and USD 60,000;
Low-end: up to USD 30,000.

} Positionning of Aixplorer® and Aixplorer MACH® 30

In addition to this segmentation, there is also the portable ultrasound scanner market (products weighing less than 12 kg), which is growing strongly. In 2018, the mobile market share (USD 1.4 billion) represented 20% of the ultrasound market. It is expected to grow to USD 1.48 billion in 2022.

Segmentation of the global ultrasound market (2017)



(Source: IHS Markit 2018)

The benefits of the Aixplorer® and Aixplorer MACH® 30 and their imaging quality position them in the Premium and High-end market segments. These segments represented USD 4 billion in 2018 out of a total market of USD 7 billion (57%). They should grow to a combined USD 4.5 billion in 2021, representing average annual growth of 2.8%.

6.4.1.4. A VERY SUBSTANTIAL TARGET MARKET

The development strategy of the Company primarily seeks to:

- Address as a matter of priority the breast and liver markets, in which the Aixplorer® and Aixplorer MACH 30 benefit from distinct clinical differentiators;
- Continue to develop its products in the Premium/High-end segments, as they offer the best growth; and finally
- Accelerate its geographic expansion in Asia and in China in particular, i.e. in the fastest-growing region.

SuperSonic Imagine will focus on the breast and liver (hepatology) markets and also enter the Premium and High-end segments of the radiology market. These segments have the advantage of being very receptive to innovations. This positioning requires not only performance with regard to traditional imaging, but also innovations that deliver convincing clinical results, something that SuperSonic Imagine specifically demonstrated in breast and liver imaging.

6.4.2. A promising environment in the main countries targeted by Aixplorer®

The Company is focusing its marketing efforts primarily on China, the United States and France.

6.4.2.1. FRANCE AND EUROPE

The economic difficulties in Europe are producing substantial differences in growth rates on the ultrasound medical imaging market. Ultrasound medical imaging is regarded in Europe as less

complex, less invasive, more economically advantageous and less harmful (no ionizing radiation) than the alternative solutions. The use of ultrasound medical imaging has been particularly favored by the development of high-end devices offering imaging modes such as contrast-enhanced ultrasound (CEUS). CEUS should continue to experience stable growth.

According to IHS Technology, the adoption of ultrasound medical imaging in new applications, such as breast imaging, represents a major opportunity for the manufacturers. Sharp growth is expected over the next three years with a solution being put in place for diagnosis based on breast density.

In France, ShearWave™ Elastography is recommended for liver fibrosis by the Haute Autorité de Santé (National Authority for Health). Reimbursement for its use was decided upon in June 2011.

Boosted by the reimbursement by the French health care system for the use of Aixplorer® for the liver, the Company wishes to increase its development mainly in France in the coming years, in radiology departments, with public hospitals and the private sector, and in hepatology departments.

6.4.2.2. USA

In the United States, the ultrasound medical imaging market boasts a high annual growth rate (forecast at 5.5% between 2019 and 2023, compared with average growth of 2.8% for the global medical ultrasound imaging market). It stood at USD 2 billion in 2018. This market has specific characteristics that are advantageous to SuperSonic Imagine solutions, namely the Aixplorer® and Aixplorer MACH 30.

In a time of budget cuts, U.S. physicians, who are accustomed to using expensive technologies such as MRI and scanners, could turn to ultrasound imaging systems, which offer high-performance alternative solutions at lower prices. Also, the American propensity for litigation in the medical domain is encouraging the medical profession to use Premium and High-end devices capable of providing a better quality of diagnosis. Finally, the introduction of systematic screening programs for breast cancer is a positive factor for the Aixplorer® market.

Ultrasound examinations are reimbursed at different rates in the USA according to the particular nature of the examination, the site (hospital or practice) and the patient's insurance. The average refund for an ultrasound examination varies between USD 110 and 170. However, there is no additional reimbursement for elastography from Medicare and private insurers. Recently, the Group obtained an "experimental" reimbursement code for shear wave elastography examinations.

The ACR (American College of Radiology) has also included breast elastography-related criteria in its BI-RADS classification.

In January 2018, the FDA authorized the Aixplorer's SWE claims for use in the diagnosis and treatment of liver disease.

6.4.2.3. CHINA

In the China region, which also includes Hong Kong and Taiwan, ultrasound has a privileged place in the medical imaging arsenal and is mainly used for screening breast cancer. The Chinese healthcare system is dominated by public hospitals, partially funded and controlled by the government. The impact of the reform of the Chinese public health system in 2012 has been a key factor in the strong

market growth. Out of the over 20,000 public hospitals, around one fifth of them are regarded as high-level and purchase high-end ultrasound devices. Ultrasound devices are commonly used for screening. The majority of patients are given an ultrasound examination before going for a CT or MRI scan. Only specialized ultrasound practitioners are qualified to make a diagnosis by ultrasound. As a result, other specialists send them their patients.

Ultrasound diagnostics are reimbursed when the examination is performed by an ultrasound specialist. The Chinese reimbursement system covers only the urban population, which accounts for 60% of the total population. When new technologies are introduced, the manufacturers generally collaborate with the hospitals to obtain approval for the pricing and therefore the reimbursement. In some regions of China, there is a supplementary reimbursement for elastography.

In China, practitioners are not yet using medical imaging tools in large numbers. Ultrasonic wave techniques are therefore used for the most part, which provides an opportunity for SuperSonic Imagine to enter the market under good conditions with Chinese professionals, including in the breast and liver fields.

SuperSonic Imagine is in a position to obtain a competitive advantage by promoting the performance of its ShearWave™ Elastography to high-level university hospitals. The choices made with regard to the distribution networks are a key factor for success in China.

6.4.3. The key players on the ultrasound imaging and elastography market

Designing and developing ultrasound scanners requires large investments and very high-level R&D teams. For this reason, the ultrasound imaging market is dominated by a small number of players, of which the five leaders (General Electric Healthcare, Philips Healthcare, Hitachi Aloka Medical, Canon, Medical and Siemens Healthcare) held 76% of the market in 2018.

6.5. AIXPLORER®, AIXPLORER ULTIMATE AND AIXPLORER MACH 30

6.5.1. General description of the product

Aixplorer® and Aixplorer Ultimate are third-generation ultrasound scanners which combine all the technologies developed by SuperSonic Imagine in a single platform and offer, in addition to the possibilities of the high-end traditional ultrasound imaging system, solutions specific to today's diagnostic challenges that push back the technical limits of traditional ultrasound imaging.

The product offers the following features:

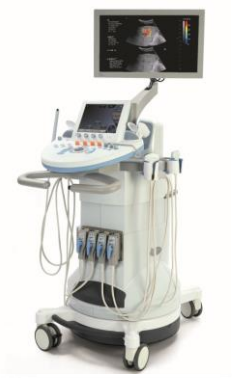
- **Superior quality imaging that positions it immediately in the "Premium" and "High-end" market segment;**
- **Perfect resolution, irrespective of the type of organ imaged and the morphology of the patient;**
- **High-contrast imaging, revealing the most subtle structures;**
- **Two additional imaging modes that set it apart from competing products (see Section 6.3.3 above):**

ShearWave™ Elastography;

- **UltraFast™ Doppler, which goes beyond the limitations of traditional Doppler modes;**
- **An ergonomic design with a highly intuitive user interface;**
- **It improves the characterization of focal lesions and diffuse pathologies for several organs and the ability to track results over time to assess disease progression and the efficacy of the therapy undertaken.**

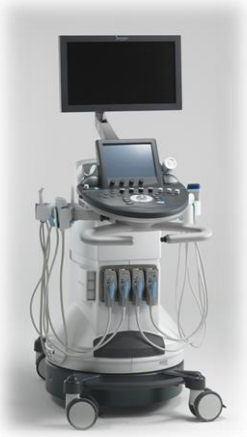
The ultrasound scanner comprises one platform for the Aixplorer® system and a large range of probes:

- **A radically new software-based technological platform;**
- **Ergonomics adapted to the difficult working conditions of practitioners.**



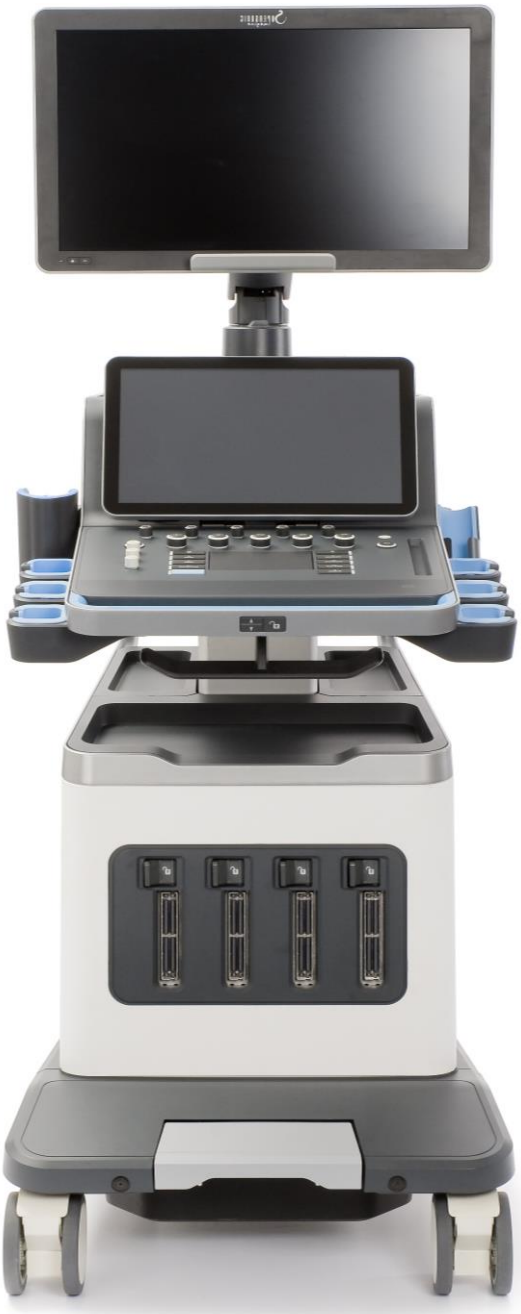
The Aixplorer® system is also known as a technological platform and comprises three elements:

- A central base containing the core of the ultrasound imaging device responsible for forming the image;
- A control panel comprising a touch screen for intuitive use of the main controls;
- A screen for real-time display of the images produced.



The development of Aixplorer® is based on a next-generation technological platform that has also taken into account the constraints affecting practitioners in their everyday work.

6.5.2. Aixplorer Mach 30: a second-generation technology platform



In 2018, the Group unveiled its second-generation product: the Aixplorer MACH 30. This second-generation product is based on a new technology platform which is radically different in design from the Aixplorer. The resulting benefits are optimized modularity, lower production costs, increased computing power and improved ergonomics for the clinician.

This choice of a high level of modularity is strategic because it creates a family of ultrasound machines suitable for various market segments that the current Aixplorer® system, which is designed as a stand-alone unit with high-end positioning, does not address for several reasons, including economic ones, as the unit price is too high for specialty markets.

However, since the construction of the proposed development consists of several stages over the period 2019 to 2020, new ultrasound scanners from this new platform should be able to be launched for new market segments, including the cardiac application, and potentially specialist liver and breast units.

The Aixplorer MACH 30 will not be approved for use in China until early 2021. Consequently, there will be a minimum three-year transition period during which the Aixplorer, Aixplorer Ultimate and Aixplorer MACH 30 will coexist until marketing authorization has been obtained from the regulatory authorities.

As well as being modular, the new product delivers the following performance:

- Increased computing power thanks to its integrated NVidia graphics card and processor, allowing a frame rate which is five times faster than the Aixplorer;
- Due to the miniaturized electronic components, the new ultrasonic motor fits on a single circuit board and has equivalent power to four Aixplorer type boards;
- Power consumption has been reduced to 300W, compared with 1,500W for the previous generation.

The Aixplorer MACH 30 has been the subject of a new, more modern and refined industrial design. A concerted effort was made to improve the user interface, with the replacement of the "track ball" – a key feature of the user interface – by a touchpad (the multitouch SonicPad^{TM}). The SonicPad dramatically enhances the user interface, allowing the user to control the examination using the touchpad alone and therefore to focus on the image acquisition and the patient, rather than on the control panel buttons. The Aixplorer MACH 30 is the first ultrasound system on the market to offer this type of feature, which reduces the amount of time spent on the examination.

The SonicPad means that there is 77% less movement of the user's hand on the control panel. This speeds up the examination, which takes 20% less time, and thus improves patient workflow.

The Aixplorer MACH 30 supports a new family of ultrasound probes with a new type of connector, facilitating connection to the system. Compared with the previous Aixplorer generation, the MACH 30 has a new high-frequency curved probe specifically designed for pediatrics and offers all imaging modes, including SWE.

The table below lists all the probes together with a description of the corresponding clinical applications:

	L18-5	L10-2	LV16-5	SLH20-6	C6-1X	C9-2X	MC12-3	E12-3	P5-1X
Abdominal	Abdomen	Abdomen			Abdomen Liver Abdominal vascular Renal	Abdomen Liver Abdominal vascular Renal			Abdominal vascular
Breast	Breast	Breast	Breast	Breast					
Cardiac									Cardiac
General	General Phantom	General Phantom	General Phantom	General Phantom	General Phantom	General Phantom	General Phantom	General Phantom	General Phantom
Genito-Urinary	Scrotum				Prostate			Prostate	
MSK	Shoulder Elbow Hand - Wrist Knee Foot - Ankle Muscle	Shoulder Knee Muscle		Elbow Hand - Wrist Knee Foot - Ankle					
OB-GYN					Early Ob Gen Ob Gyn	Early Ob Gen Ob Gyn		Early Ob Gen Ob Gyn	
Pediatric	Neonatal Head Thyroid Neck Abdomen Hip Scrotum Superficial	Neonatal Head Thyroid Neck Abdomen Hip Scrotum Superficial		Thyroid Neck Scrotum Superficial	Abdomen Pelvis Gyn	Abdomen Pelvis Gyn	Neonatal Head Abdomen Pelvis Gyn		
Thyroid	Thyroid	Thyroid			Thyroid	Thyroid			
Vascular	Carotid Up Ext Arterial Up Ext Venous Low Ext Arterial Low Ext Venous	Carotid Up Ext Arterial Up Ext Venous Low Ext Arterial Low Ext Venous		Superficial vasc	Abdominal vasc Renal	Abdominal vasc Renal	Carotid Up Ext Arterial Up Ext Venous Low Ext Arterial Low Ext Venous		TCD Abdominal vasc

The new architecture of the Aixplorer MACH 30 yields significant performance enhancements in all imaging modes:

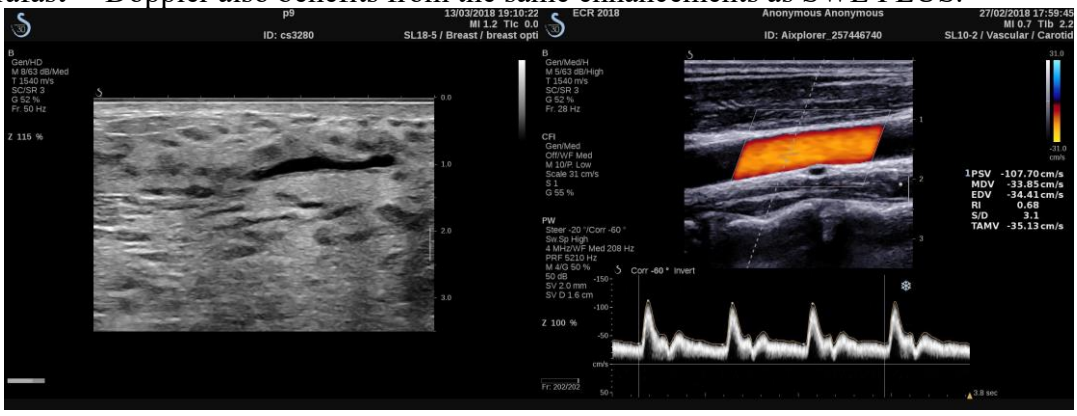
- Mode B: better penetration for all transducers and better contrast resolution. The new platform enables images to be obtained with less noise, offering better image clarity.
- Doppler mode and color: better resolution and sensitivity of the Doppler with better spatial resolution for the color Doppler.

All of these enhancements are due to proprietary software, which is better at capturing and analyzing signal purity and which facilitates adaptive signal processing, delivering optimal image quality for a wide range of morphologies.

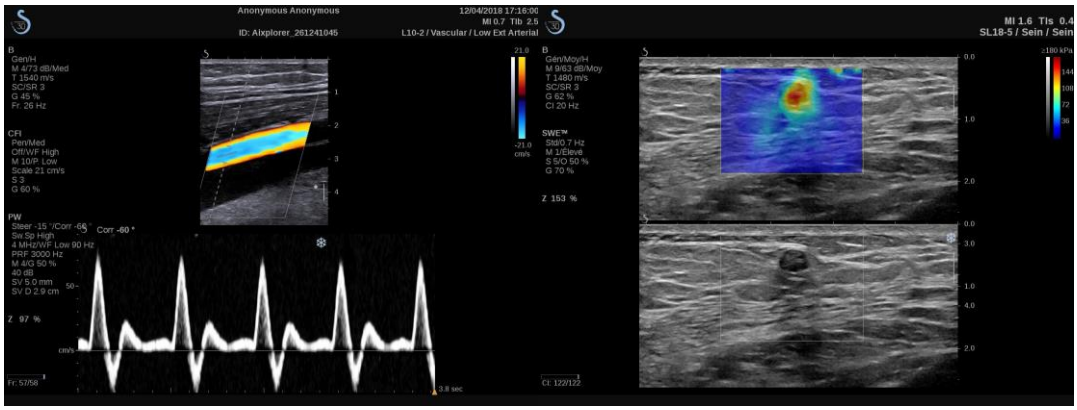
When it comes to innovative modes, the new platform delivers significant improvements in elastographic mode (SWE PLUS), with:

- A larger viewing area
- A higher acquisition and visualization rate
- Greater penetration without compromising the mode B image
- A fuller SWE box.

The Ultrafast™ Doppler also benefits from the same enhancements as SWE PLUS.



Excellent contrast in the breast High Doppler sensitivity



Purity of the Doppler spectrum SWE in the breast

The Aixplorer MACH 30 now includes remote interaction software which allows the user to try out new features before deciding whether to buy them, as well as performing remote software updates, carrying out remote maintenance and controlling the operating system. In terms of connectivity, the Aixplorer MACH 30 complies with the DICOM (Digital Imaging and Communications in Medicine) standard, mainly designed for obstetrics and vascular applications. The Aixplorer MACH 30 has various options for communicating with the outside world: WIFI, isolated USB port, USB 3.0 port (high-speed transfer), USB C port able to power an external monitor.

To conclude, the Aixplorer MACH 30 offers a new user interface standard with new ergonomics in patient management and full connectivity capabilities, enabling it to provide educational, service and diagnostic support. The excellent clinical performance should satisfy customers in search of premium quality in all conventional modes. The chosen architecture is at the leading edge of available innovative modes such as shear wave elastography and UltraFast Doppler. With new tools and biomarkers in the pipeline, it is also designed to be future-proof.

6.6. PROMISING CLINICAL VALIDATION IN VARIOUS APPLICATIONS

6.6.1. Aixplorer®: a strong clinical positioning

The Company's philosophy is founded on clinical innovation, meaning the demonstration of a clinical benefit for its technological innovations in all the domains where imaging can play a role.

Ultrasound imaging is traditionally positioned as a diagnostic tool, for different organs and different pathologies. However, this role will be progressively extended beyond diagnosis and offer applications for screening and for treatment follow-up or monitoring. Each of these three clinical contexts (screening, diagnosis, and therapy) demands different qualities on the part of the imaging system: detection ability for screening, good characterization for diagnosis, and reproducibility for treatment follow-up or monitoring.

The vision of SuperSonic Imagine is to supplement traditional ultrasound imaging with new functionalities that make this imaging mode capable not only of excelling in the fields where it currently has a role, but also of extending this role and competing with other imaging modes.

This clinical positioning is a strong signature of a Group that is today proving itself as a force to be reckoned with for the major players in the imaging market. SuperSonic Imagine is developing it by coordinating clinical trials around these claims.

6.6.2. A strong role in coordinating clinical trials

In addition to the scientists with whom SuperSonic Imagine maintains close relationships, the Company has always involved physicians in its deliberations and work. It encourages them to conduct clinical studies on applications that are suggested for Aixplorer® and to publish their findings. Even if these studies do not form part of a regulatory process for obtaining a marketing authorization, the stakes are high with respect to recognition and acceptance by the market. Obtaining the support of opinion leaders in the relevant field is a precondition for any attempts to impose a new technology for medical procedures that are fully known and mastered by health professionals (radiologists and other clinical specialists). It is therefore necessary to provide a scientific demonstration of the contribution of ultrasound using ShearWave™ Elastography compared to conventional ultrasound, and then to communicate these results to opinion leaders so that they will then adopt the recommendation to use this new procedure.

Numerous clinical studies of the various applications of the ShearWave™ Elastography system are underway in a number of clinical centers around the world. They have already been discussed in over 600 scientific publications. Health professionals and researchers are conducting studies, with the Company acting as coordinator between teams interested in the same topics.

The results of studies concerning the three application areas considered as priorities by the Group (breast, liver and prostate) are presented below.

6.6.3. An initial application dedicated to breast imaging: a significant improvement in diagnosis

6.6.3.1. STILL TOO MANY UNNECESSARY BIOPSIES PERFORMED DURING DIAGNOSIS

- **Ultrasound imaging has a key role in breast cancer screening thanks to its excellent negative predictive value**

Thanks to its excellent sensitivity (around 80% for the specific breast application – see the results of the multi-site study described in Section 6.6.3.2. below), its reproducibility and the standardization of this examination, mammography is the reference examination for the screening of breast cancers. Against this background, the primary objective is to locate and identify, in asymptomatic patients, any anomaly (lesions, foreign bodies, architectural disorganization, etc.), in order to then study it in more depth and perform a biopsy if it is suspect. The place of mammography in screening is today major, since it is the only procedure that has demonstrated a reduction in mortality when used for screening examinations.

Ultrasound imaging, for its part, also has a high degree of sensitivity that allows it to be used at the screening stage, but this technique has the drawback of being more dependent than the others on the operator, his experience and the quality of the device used. On the other hand, the excellent negative predictive value (ability to predict that a lesion will be benign) of ultrasound imaging, combined with a greater degree of specificity than that of mammography, make this imaging technique the ideal tool for the step that comes after screening: the diagnosis proper, which requires characterization of the lesions. Here the primary aim is no longer to detect, but rather to qualify the anomalies detected by mammography in order to identify those that are certainly benign, those that show sufficient risk of malignity to justify an additional medical procedure, biopsy, and finally those for which the risk of malignity is very low and will therefore call for close monitoring.

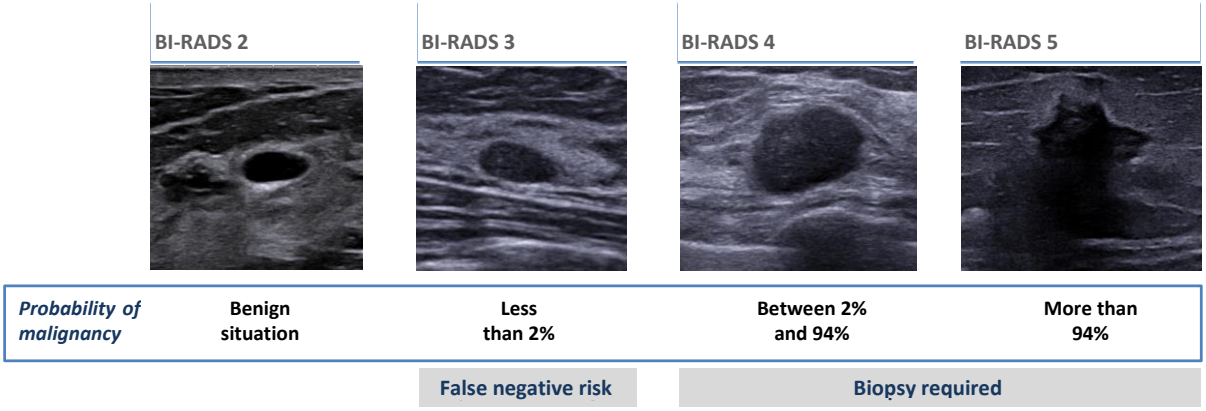
To give an idea of the economic impact, a biopsy in the USA costs on average USD 2,300. On the basis of 1.6 million unnecessary biopsies in the USA every year, this thus represents savings of USD 3.7 billion.

- **However, conventional ultrasound imaging modes have the disadvantage of lacking specificity**

This two-stage sorting process (screening and then characterization) makes it possible to rule out any suspicion for certain typically benign lesions, such as simple cysts. However, despite this two-stage sorting, the vast majority of lesions for which a biopsy is currently performed are benign. **In the USA, for example, two million biopsies are performed every year, of which 80% are negative, which highlights the need to improve specificity to reduce biopsies that are not useful.** Conversely,

certain lesions classed as probably benign, although this is a rare occurrence (less than 2% of the lesions classed as probably benign), are not biopsied but subsequently prove to be cancers.

For assessing breast lesions detected by mammography and characterized by ultrasound imaging systems, radiologists use a classification system developed by the American College of Radiology (ACR): BI-RADS® (Breast Imaging Reporting and Data System). This is based on the evaluation of different radiological criteria and essentially allows each examined lesion to be ranked on a scale from 1 (examination normal) to 6 (proven malignant lesion). For all lesions with a rank of 4 or 5 in BI-RADS, the risk of malignity is regarded as sufficiently high to justify a biopsy, which makes it possible to obtain an anatomical and pathological result from the tissue sample taken. BI-RADS 2 lesions are certainly benign, while BI-RADS 3 lesions are probably benign and therefore require monitoring.



In this classification, the BI-RADS® category 4 entails the greatest uncertainty concerning the malignancy of the lesion after mammography (between 2% and 94% probability that the lesion is malignant). For this reason, this category is often divided into BI-RADS 4a, 4b and 4c.

6.6.3.2. IMPROVED SPECIFICITY WITH SHEARWAVE™ ELASTOGRAPHY

- **A major multicenter study**

An international, multicenter study, "Breast Elastography 1" (BE1) was initiated in April 2008 at 17 leading sites in the United States and Europe, including the Curie Institute in Paris, Hammersmith Hospital of the Imperial College of Medicine in London (UK), the diagnosis center at Wiesbaden and the university hospitals in Kiel and Greifswald (Germany), as well as Yale Medical Center (Connecticut, USA) and Northwestern Memorial Hospital in Chicago (Illinois, USA). This study was the largest clinical study financed by a company in the ultrasound sector. The proper conduct of the study was supervised by Professor David Cosgrove (Imperial College of Medicine, London) and it enabled the analysis of 1,800 patients in a database of more than 20,000 images. An independent biostatistician, Caroline Dorée at Hammersmith Hospital, London (UK), performed this analysis.

Involving renowned physicians in the field of breast imaging, the BE1 study evaluated the clinical benefits of ShearWave™ Elastography in the context of ultrasonographic diagnosis of breast lesions.

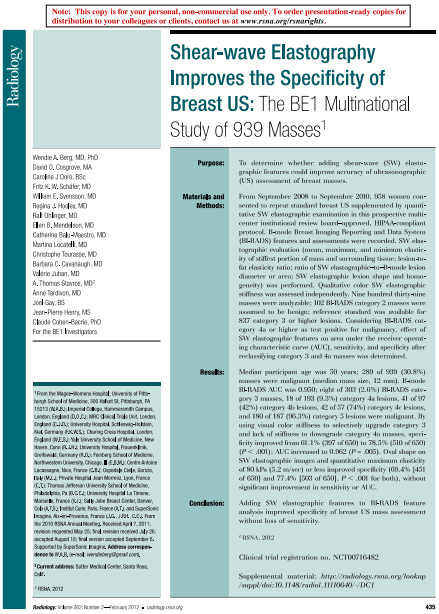
The study had two objectives:

- To demonstrate the reproducibility of ShearWave™ Elastography;
- To evaluate the diagnostic impact of ShearWave™ Elastography used as an adjunct to conventional ultrasound imaging systems.

Throughout this study, numerous presentations were given at various international conferences.

Full recognition of the contribution of the application for the breast provided by Aixplorer® was awarded in early 2012 by the publication of two articles in the prestigious journals Radiology and European Radiology, both of these being scientific journals that are acknowledged for their independence and critical thinking.

The final clinical results were presented on March 1, 2012, at the ECR (European College of Radiology) Congress in Vienna, Austria.



Radiology

Shear-wave Elastography Improves the Specificity of Breast US: The BE1 Multinational Study of 939 Masses[1]

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Caroline J. Doré, BSc
Fritz K. W. Schäfer, MD
William E. Svensson, MD
Regina J. Hooley, MD
Rolf Ohlinger, MD
Ellen B. Mendelson, MD
Catherine Balu-Maestro, MD
Martina Locatelli, MD
Christophe Tourasse, MD
Barbara C. Cavanaugh, MD
Valérie Juhan, MD
A. Thomas Stavros, MD
Anne Tardivon, MD
Joel Gay, BS
Jean-Pierre Henry, MS
Claude Cohen-Bacrie, PhD
For the BE1 Investigators

Purpose: To determine whether adding shear-wave (SW) elastographic features could improve accuracy of ultrasonographic (US) assessment of breast masses.

Materials and Methods: From September 2008 to September 2010, 938 women consented to repeat standard breast US supplemented by quantitative SW elastographic examination in this prospective multicenter institutional review board–approved, HIPAA-compliant protocol. B-mode Breast Imaging Reporting and Data System (BI-RADS) features and assessments were recorded. SW elastographic evaluation (mean, maximum, and minimum elasticity of stiffest portion of mass and surrounding tissue; lesion-to-fat elasticity ratio; ratio of SW elastographic–to–B-mode lesion diameter or area; SW elastographic lesion shape and homogeneity) was performed. Qualitative color SW elastographic stiffness was assessed independently. Nine hundred thirty-nine masses were analyzable: 102 BI-RADS category 2 masses were assumed to be benign; reference standard was available for 837 category 3 or higher lesions. Considering BI-RADS category 4a or higher as test positive for malignancy, effect of SW elastographic features on area under the receiver operating characteristic curve (AUC), sensitivity, and specificity after reclassifying category 3 and 4a masses was determined.

Results: Median participant age was 50 years; 288 of 939 (30.8%) masses were malignant (median mass size, 12 mm). B-mode BI-RADS AUC was 0.910; eight of 393 (2.0%) BI-RADS category 3 masses, 18 of 193 (9.3%) category 4a lesions, 41 of 97 (42%) category 4b lesions, 42 of 57 (74%) category 4c lesions, and 180 of 187 (96.3%) category 5 lesions were malignant. By using visual color stiffness to selectively upgrade category 3 and lack of stiffness to downgrade category 4a masses, specificity improved from 68.1% (397 of 650) to 78.5% (510 of 650) ($P < .001$). AUC increased to 0.962 ($P = .005$). Oval shape on SW elastographic images and quantitative maximum elasticity of 90 kPa (5.2 m/sec) or less improved specificity (69.4% [451 of 650] and 77.4% [503 of 650], $P < .001$ for both), without significant improvement in sensitivity or AUC.

Conclusion: Adding SW elastographic features to BI-RADS feature analysis improved specificity of breast US mass assessment without loss of sensitivity.

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Clinical trial registration no. NCT00716482

Supplemental material: *http://radiology.rsna.org/lookup/suppl/doi:10.1148/radiol.11110640/-/DC1*

From the Magee-Womens Hospital, University of Pittsburgh School of Medicine, 300 Halket St, Pittsburgh, PA 15213 (W.A.B.); Imperial College, Hammersmith Campus, London, England (D.O.C.); MRC Clinical Trials Unit, London, England (C.J.D.); University Hospital, Schleswig-Holstein, Kiel, Germany (F.K.W.S.); Charing Cross Hospital, London, England (W.E.S.); Yale University School of Medicine, New Haven, Conn (R.J.H.); University Hospital, Frauenklinik, Greifswald, Germany (R.O.); Hamburg School of Medicine, Northwestern University, Chicago, Ill (E.B.M.); Centre Antoine Lacassagne, Nice, France (C.B.-M.); Ospedale Civile, Sarzio, Italy (M.L.); Private Hospital Jean Mermoz, Lyon, France (C.T.); Thomas Jefferson University School of Medicine, Philadelphia, Pa (B.C.C.); University Hospital La Timone, Marseille, France (V.J.); Saint Jobe Breast Center, Denver, Colo (A.T.S.); Institut Curie, Paris, France (A.T.); and SuperSonic Imagine, Aix-en-Provence, France (J.G., J.P.H., C.C.-B.). From the 2010 RSNA Annual Meeting. Received April 7, 2011; revision requested May 25; final revision received July 26; accepted August 10; final version accepted September 6. Supported by SuperSonic Imagine. Address correspondence to W.A.B. (e-mail: wendiebergmd@gmail.com).

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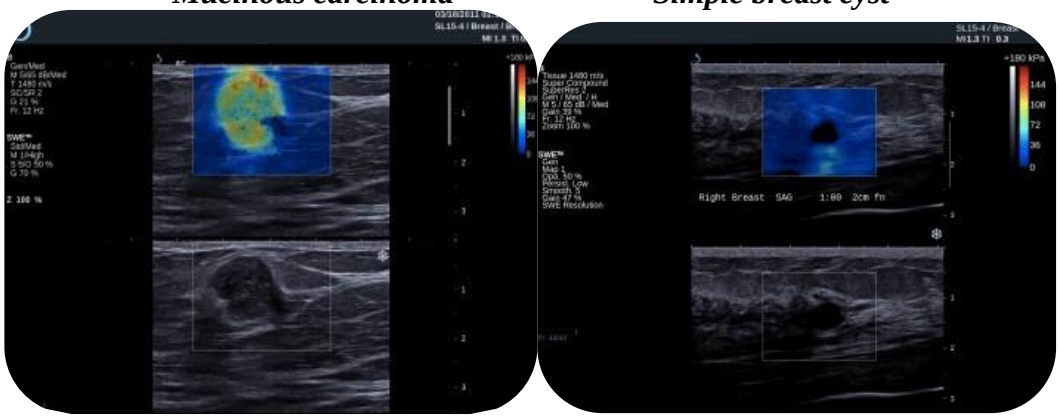
- **The study conducted resulted in a significant improvement in the BI-RADS classification of breast lesions thanks to the better specificity of ShearWave™ Elastography. In fact, the study focused on the classification of breast lesions in the BI-RADS® 3 and 4 categories, and therefore referring patients for medical follow-up or for a biopsy;**
- **Clinical results 1: the accuracy and reproducibility of ShearWave™ Elastography has been proven;**
- **Clinical results 2: ShearWave™ Elastography has been shown to increase the specificity and Positive Predictive Value (PPV) of breast ultrasound imaging.**

Example of images obtained with ShearWave™ technology

Mucinous carcinoma ***Simple breast cyst***



6.6.3.3. OTHER STUDIES CONDUCTED ON THE BREAST

In addition to the recent publications of initial results from the BE1 multinational study, numerous teams across the world have also reported the results of their own experiences. All the clinical publications, classified by application, can be found on the Company's website.

In 2016, the Company completed a study similar to the BE1 study in China across over 20 sites. This study, involving more than 2,000 patients, covered diseases in women with dense breasts for whom conventional RX mammography gives poor results. The results of this study, confirming the results of the BE1 original study, were presented to the 2016 annual meeting of the Radiological Society of North America in Chicago.

6.6.3.4. BI-RADS CLASSIFICATION

The American College of Radiology (ACR) decided to include criteria related to elastography in its most recent update of the BI-RADS classification (January 30, 2014).
Translation from the 2nd edition of BI-RADS Atlas on the assessment of elasticity: "Elasticity can be used as a descriptive characteristic for masses and surrounding tissue, in addition to their most important morphological characteristics. This characteristic can be achieved either by manual compression of the mass (static elastography) or by ultrasonic energy delivered within the mass (shear waves). The cancers and their surrounding tissues are generally hard, whereas benign lesions are usually soft; however, as with all other ultrasound criteria, there is an overlap zone. […] The FDA has recently approved meters per second and kilopascals as units of measurement for lesion hardness for shear wave methods. The descriptors applicable to all methods and all available systems are soft, intermediate, and hard."
The integration of elastography into the BI-RADS classification is a significant step forward in the recognition of a distinguishing element of Aixplorer®.

6.6.4. Application dedicated to breast imaging: prospects for the screening and therapy sectors

6.6.4.1. PROSPECTS FOR BREAST CANCER SCREENING

Today, ultrasound imaging is attracting interest from many quarters beyond the diagnostic realm, since some studies show that this technique could detect a non-negligible number of lesions that are, moreover, among the most aggressive (29% more cancers were detected when ultrasound imaging was used systematically in addition to mammography for women with dense breasts in the ACRIN 6666 study in which mammography proved to be insufficient).

These women with dense breasts are young patients or those receiving hormone therapy for treatment of the menopause. Additionally, dense breasts are a natural feature of certain populations such as Asian women. Alternatives to screening with mammography alone are therefore being studied, particularly in Japan (J-START study by Dr. Ohuchi et al.) to evaluate the benefits of sonography as a complement to mammography for reducing mortality in the context of screening.
As discussed in the preceding section "6.6.3.3. Other studies conducted on the breast", the Group finalized a study of unparalleled scale designed to highlight the clinical benefits of the Group's technology.

That being said, this detection of additional cancers currently comes at the price of numerous false alarms, since ultrasound imaging also detects many benign lesions during screening. This lack of specificity is particularly troublesome since it raises the question of the medico-economic legitimacy

of ultrasound screening. The improved specificity permitted by elastography could therefore have a considerable impact on the progressive adoption of ultrasound imaging for screening, by allowing a reduction of its false positives while retaining its power of detection.

This new step in demonstrating the clinical benefits of elastography for screening is a strategic avenue of research for SuperSonic Imagine.

6.6.5. Liver imaging: accurate diagnosis of lesions and chronic diffuse diseases

6.6.5.1. BIOPSIES ARE CURRENTLY THE ONLY DEFINITIVE DIAGNOSTIC TECHNIQUE, DESPITE A REAL RISK OF COMPLICATIONS

The two main types of imaging for the organs of the abdomen, and particularly for the liver, are traditional ultrasound and CT scanning systems:

- Since most of the organs of the abdomen are situated at some depth, the ultrasound imaging system used must, if it is to be efficient, offer very good contrast and spatial resolution, as well as good penetration into the organs;
- CT scans are an imaging technique used to make a 3D reconstruction of tissue from a tomographic analysis obtained by X-ray. This technique, which emits radiation, locates tumors and lesions in early stages, but does not allow them to be characterized.

The liver is well suited to ultrasound imaging, contrast ultrasound in particular. Easily accessible, it is a prime target for diagnostic ultrasound imaging or biopsy procedure guidance. There are many hepatic pathologies, grouped into those known as focal (nodules and other lesions) and those known as chronic or diffuse (fibrosis, steatosis, cirrhosis and fatty degeneration).

The diagnosis of diffuse and focal hepatic disorders represents a particularly important market (see Chapter 6.4 of this document), with specific medical needs that remain unanswered for the diffuse diseases. For example, hepatitis C affects 270 to 300 million people around the world, and hepatitis B nearly two billion. These hepatic tissue infections develop into fibrosis, then cirrhosis, with the ultimate complication being the onset of cancer sites, portal hypertension or liver failure, which each lead to death of the patient in the absence of treatment. Today, the survival rate at five years after diagnosis of chronic disease is surprisingly low, at only 50%, despite improvements in therapeutic management. If the fibrotic process is not diagnosed sufficiently early and if suitable management is not begun very soon, its development into cirrhosis becomes unstoppable and will result in a liver transplant, at best.

To establish this diagnosis, liver biopsy is currently the only definitive technique. Due to its invasiveness, however, it has a real risk of complications, especially among potentially vulnerable patients, and remains problematic as a method of diagnostic monitoring, where the repetition of the invasive procedure increases the risk of complications.

6.6.5.2. AIXPLORER®: NON-INVASIVE SCREENING OF LIVER FIBROSIS

Several clinical assessments measuring the contribution of ShearWave™ Elastography in the assessment and diagnosis of chronic liver disease are in progress and are subject to clinical collaborations. Several scientific publications have been produced, which showed a clear benefit to the use of Aixplorer® and ShearWave™ Elastography to assess the degree of hepatic fibrosis.

The first collaboration with the Institut Langevin, the Hepatology Unit of the Hôpital Cochin in Paris and an INSERM unit (June 2011) showed for 113 patients with hepatitis C that the SuperSonic Imagine system was a rapid, simple, reproducible and reliable method for non-invasive assessment of hepatic fibrosis. By mapping the elasticity of the liver over an extensive and deep area, this method, in contrast to FibroScan® or other non-invasive techniques, made it possible to avoid bias due to the heterogeneity of the fibrosis.

At the end of 2012 and of 2013, two teams published the results of their work, which consisted of evaluating the performance of SWE™ in the diagnosis of hepatic fibrosis in patients carrying the hepatitis C (Ferraioli et al., Hepatology 2012) and hepatitis B virus (Leung et al, Radiology 2013). These two independent publications demonstrated that the measurement of liver tissue elasticity with ShearWave™ Elastography made it possible to distinguish more accurately than with other techniques (FibroScan®) stages of significant, severe fibrosis and cirrhosis, thus having the potential to prevent liver biopsy being performed in some cases, the morbidity rate of which is estimated at 3%.

These results also make ShearWave™ Elastography a very good tool for non-invasive patient monitoring, making it possible both to monitor the development of liver fibrosis and to monitor patients undergoing antiviral therapy.

Several teams are currently working on the evaluation of the benefits of SWE in the context of liver transplants. For example, the South Korean team of Dr. Yoon has showed that SWE allowed the exclusion of any hypothesis of the presence of hepatic fibrosis, thus ensuring the identification of healthy donors. ShearWave™ Elastography also allows the monitoring of patients who received transplants and identification from four weeks post-transplant of any graft rejections and recurrences of chronic disease.

An international effort to collect clinical information is currently underway with Aixplorer® and ShearWave™ Elastography users. The results of this retrospective study involving 1,300 patients were presented at the ECR (European Congress of Radiology) in April 2015. A press release regarding this presentation can be found on the Company's website.

In parallel, several French university campuses (Paris, Angers, Bordeaux, Grenoble), some of which are international leaders in hepatology, have shown considerable interest in Aixplorer® and ShearWave™ Elastography. Indeed, the addition of a reliable method for measuring hepatic stiffness with an ultrasound imaging device of the liver is a major advance in the diagnosis of chronic liver disease.

6.6.6. Prostate imaging: an improvement in prostate cancer diagnosis resulting from better biopsy guiding

A publication, which appeared in March 2012, by Drs. Barr, Memo and Schaub from a clinical research center in the United States (Cleveland, OH), presents the results of a study, which aimed to evaluate ShearWave™ Elastography in the detection of prostate cancer. Fifty-three patients participated in this study. These preliminary results concluded that ShearWave™ Elastography provides very high sensitivity (97%) and specificity (70%), which enables the detection and diagnosis of these cancers. According to this study, patients with abnormal blood levels of PSA*, for whom a biopsy is indicated, could avoid this biopsy thanks to non-suspicious results being obtained in a ShearWave™ Elastography scan. This could significantly reduce the proportion of negative biopsies in these patients.

The authors state that shear wave elastography is a very promising technique for detection of prostate cancer on the one hand, and for guiding the biopsy procedure in prostate cancer on the other, and that it could become the principal method for screening and diagnosis of prostate cancer.

Professor Correas's team at the Radiology Department, Necker Hospital, Paris, is also currently conducting a clinical study to evaluate the advantages of ShearWave™ Elastography in the screening and diagnosis of prostate cancer. The results he recently presented to the 2013 Annual Meeting of the Radiological Society of North America involved 184 patients recruited by him at the Necker Hospital in Paris and by Dr. Richard Barr (Youngstown, OH, USA), of whom 65 were carriers of a cancer site. Aixplorer® and ShearWave™ Elastography enabled 98% of the malignant sites to be correctly diagnosed. In particular, it was possible to predict with extreme accuracy (99%) that a lesion was benign.

Other centers that are currently using Aixplorer® and ShearWave™ Elastography in this clinical application and evaluating the clinical benefits of this technology include: Dr. Nabi at Dundee University, Scotland, Professor Rouvière at Lyon City Hospitals, and Dr. Samir at Massachusetts General Hospital (MGH) in Boston (USA).

Dr. Jochen Walz is a surgeon of German origin and is currently working at the Center for the Fight Against Cancer in Marseille, which is located in the Institut Paoli Calmettes. For the past few months, he has been evaluating ShearWave™ Elastography as part of the diagnosis and detection of prostate cancer and reported an experience similar to Prof. Correas and Dr. Barr. After being surprised by the ease of handling of Aixplorer® and SWE™ technology, all the more so for a non-radiologist, he witnessed the accuracy, reproducibility and high diagnostic value of the measurements made by ShearWave™ Elastography.

The viewing in a color scale of tissue stiffness offered by the Aixplorer® ShearWave™ Elastography mode should also be an important contribution in brachytherapy operations to better view where to put the radioactive element used to destroy diseased tissue.

6.6.7. The other applications and the future of clinical innovation as seen by SuperSonic Imagine

In addition to the applications of ShearWave™ Elastography in the diagnosis and even screening of breast cancer, and the evaluation of the advancement of hepatic fibrosis and in diagnosing prostate cancer, the Aixplorer® and Aixplorer MACH 30 are also used in many other clinical domains. The development of an ultra-fast Doppler mode, named "UltraFast™", has also allowed the Aixplorer® and Aixplorer MACH 30 to be positioned in the diagnosis and characterization of vascular pathologies, such as stenosis and the visualization of transient phenomena associated with blood flow turbulence.

Dr. Stéphanie Franchi-Abella of Kremlin Bicêtre Hospital in Paris, who specializes in pediatric examinations, willingly says that the use of UltraFast™ Doppler in young children ensures acquisitions of good quality and considerable flexibility in pediatrics.

The technological and clinical expertise of SuperSonic Imagine is redefining the shape of the ultrasound imaging market. Demonstration of clinical benefits is an asset for meeting the requirements of the premium/high-end market while allowing the creation of new target markets such as hepatology or gastroenterology for the liver. Indeed, in these clinical specialties markets, a high level of scientific evidence is expected to meet the diagnostic needs of specialists without requiring the expertise of image interpretation by the radiologist. Only such clinical evidence supports the adoption of innovative technology by specialists.

The example of the "liver" clinical application is interesting on this point. In industrialized countries, the increasing number of carriers of hepatitis C has resulted in an urgent need for a non-invasive alternative to ultrasound-guided biopsy to evaluate the degree of liver fibrosis. With equipment easily usable by hepatologists, the adoption of the FibroScan® allows them to keep hold of their patients without depending on radiologists to perform ultrasound-guided biopsies. However, for monitoring fibrosis patients, only radiologists can still perform a complete ultrasound examination, for a prognosis of cirrhosis complications or even a diagnosis of hepatocellular carcinoma.

As a result, SuperSonic Imagine's ultrasound imaging system, thanks to ShearWave™ Elastography, enables radiologists to retrieve diagnostic information for fibrosis even during the ultrasound imaging examination and allows hepatologists to appropriate ultrasound imaging to provide a simple and robust alternative to the FibroScan®. This becomes even more evident in Asia, where the prevalence of hepatitis B continues to grow.

As well as addressing conventional morphological and hemodynamic imaging requirements, the Aixplorer and Aixplorer MACH 30 systems offer a quick and reliable measurement of liver and spleen hardness using image guidance and ShearWave™ Elastography (SWE) technology. Since liver and spleen hardness is related to the severity of liver fibrosis, this measurement is considered an essential non-invasive marker for assessing the severity of the disease. The Aixplorer and Aixplorer MACH 30 systems also enable the ultrasound "brightness" of the liver to be compared against that of a reference tissue to obtain a hepatorenal "brightness" ratio indicating the degree of hepatic steatosis. Capable of visualizing and quantifying the infusion and abdominal vascularization, the

Aixplorer and Aixplorer MACH 30 help determine the clinical management of patients with advanced chronic liver nodules and pathologies.

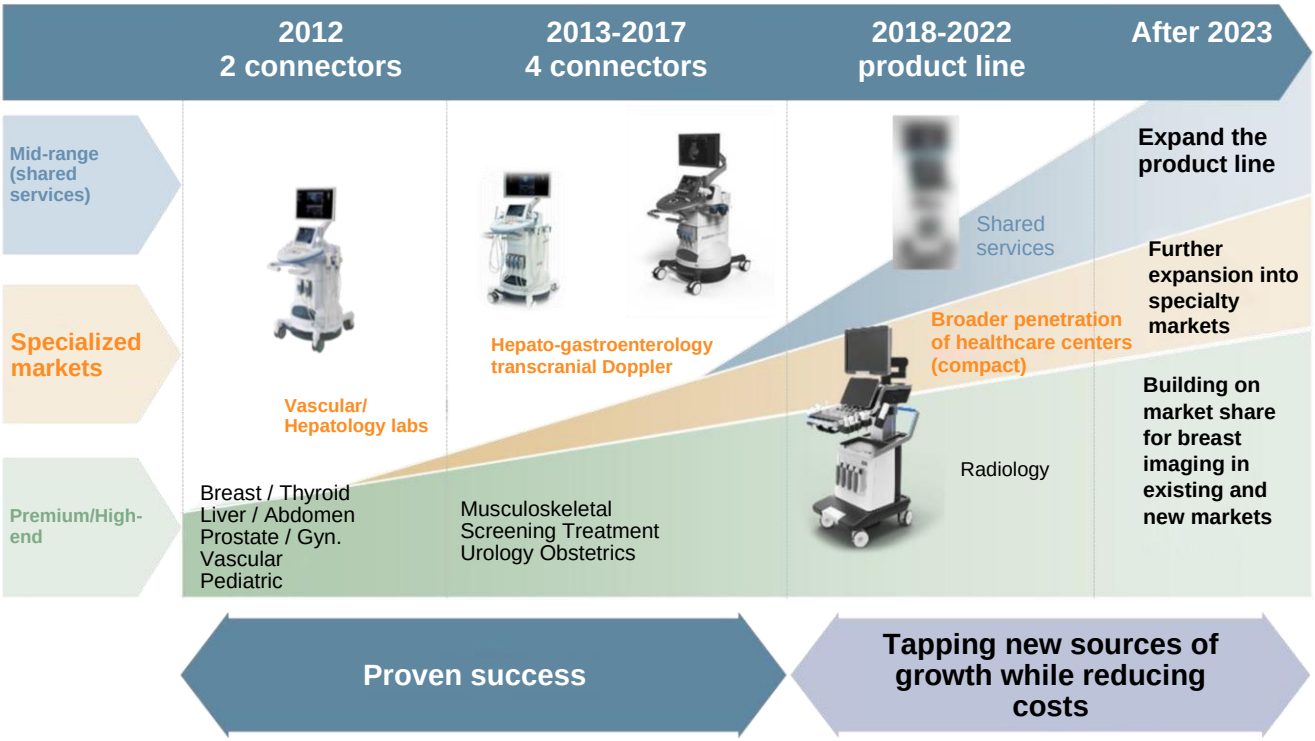
First authorized by the FDA in 2009 as an ultrasound diagnostic imaging system with ShearWave™ Elastography, Aixplorer solutions have since paved the way for UltraFast™ ultrasound imaging and are now marketed worldwide. These solutions are currently available in 52 countries, both in research and daily clinical practice.

In 2018, SuperSonic Imagine received additional FDA approval for the Aixplorer and Aixplorer MACH 30 as tools to assist in the clinical management of patients with liver disease. This approval is the result of 130 clinical publications on the use of SWE in subjects with liver disease. It allows the clinical use of the Aixplorer and Aixplorer MACH 30 products to be extended to the management of liver disease.

The Aixplorer and Aixplorer MACH 30 offer doctors an increasing number of solutions to assist them in managing liver disease.

Obesity and diabetes increase the risk of developing nonalcoholic steatohepatitis (NASH), a disease partly characterized by severe fatty liver disease and fibrosis. The additional FDA approval obtained for Aixplorer products reinforces SuperSonic Imagine's strategy of developing and commercializing non-invasive tools for assessing the severity of NASH.

6.6.8. Roadmap



6.7. RAPID COMMERCIAL DEVELOPMENT

6.7.1. Marketing authorization in 63 countries

The regulatory aspects of the Group's activity are managed by the Regulatory/Quality team, which reports to Senior Management. Since Aixplorer® and the probes are medical devices, their marketing requires specific authorizations from the competent national authorities.

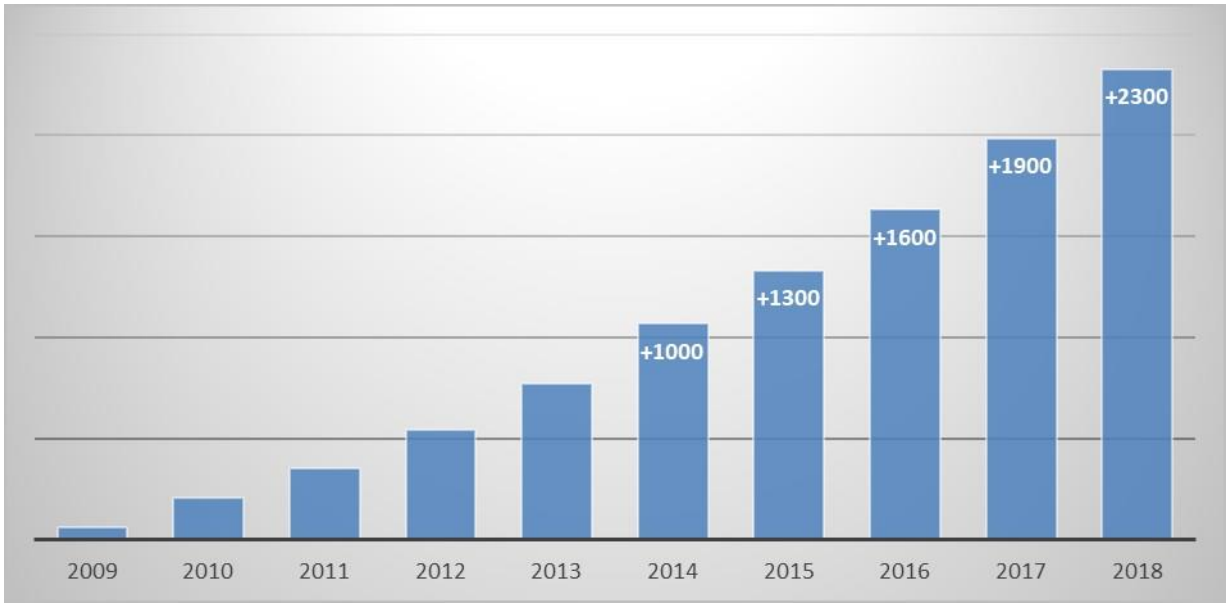
As of the date of this report, the Group has marketing authorization:

- In 55 countries where authorization has been obtained;
- In 8 countries in which no authorization is required;
- For 1 country, where an application was made and is currently being reviewed;
- The new Aixplorer MACH 30 product received the CE mark in July 2018 and FDA certification (510(k) clearance) in June 2018.

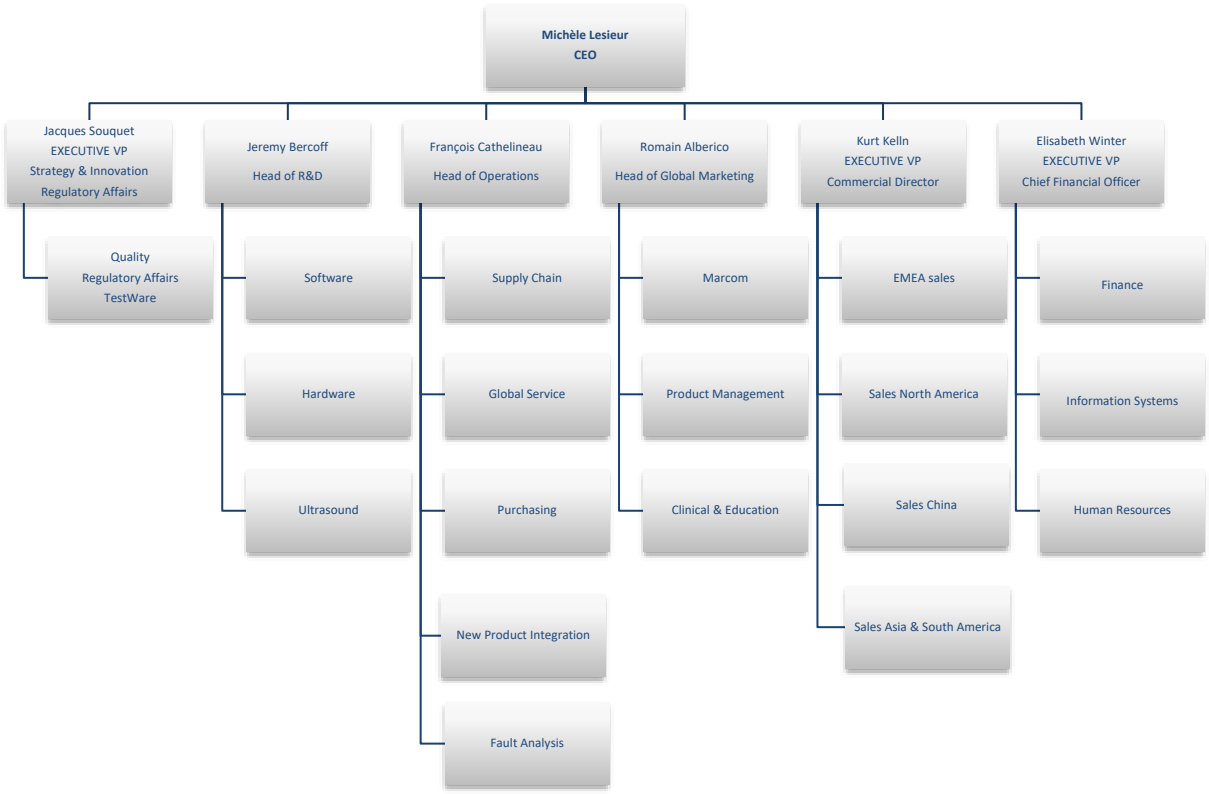
6.7.2. A current installed base of more than 2,300 units worldwide

With the CE mark obtained in March 2009 and FDA "510(k)" clearance in August 2009, over 2,300 Aixplorer® devices had been sold as of December 31, 2018, namely within nine years, through a commercial organization that covers the major countries in the world.

The graph below shows the evolution of the installed base:



6.8. INTERNATIONAL MANAGEMENT FOCUSED ON QUALITATIVE GROWTH



Beyond a relatively conventional organization, including departments for R&D, Operations, Marketing, Distribution and Finance, the Group has established cross-functional project teams.

6.8.1. Technical Department: an advanced Research & Development division

The Company grew out of the will of a high-level multidisciplinary team to develop a next-generation ultrasonic wave medical imaging system and it brought together a strong engineering team assigned to the R&D department.
The R&D division broadly consists of three divisions working together very closely.
Within their respective fields, they operate at two levels:

- **Continuous improvement of the product range (development of new probes and application software); and**
- **Over the longer term, the next generation ultrasound scanner as well as targeted collaborative projects (see Chapter 11 of this document).**

The "Ultrasound" division
The objective of this leading division is to develop innovative imaging methods according to clinical needs.

The "Hardware" division
Aixplorer® is a platform that includes mechanics and electronics to which is added software, which requires software developments to make them function properly together and provide integrated functions for measurement, computation and signal processing.

The "Software" division
One of the major assets of the Company is the fact of having selected software architecture for its ultrasound imaging, which enables a reduction in the use of electronic boards, the processing power of which restricts the development of new applications. SuperSonic Imagine with its UltraFast™ technology uses video game technology due to its characteristics of being able to process a large quantity of data with a rapid, high-quality display.

Industrial Property Management

6.8.2. Direct and indirect distribution

Since it began marketing Aixplorer®, the Group has implemented a roll-out strategy based on the combination of several approaches, depending on the specificities and potential of each target country and based on a model that has been widely tested in the medical device sector.

Three models coexist today:
- A direct approach in France and the United States;
- An indirect approach comprising a network of distributors;
- A special approach in China through a representative office in Beijing, and a subsidiary (WFOE).

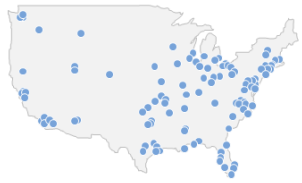
6.8.2.1. THE CURRENT SALES NETWORK

The evolution of consolidated revenue by sales channel is shown in Section 9.2.1.1.

The entire sales force receives regular training on technical and purely clinical aspects, which are always evolving, and in particular on new areas of Aixplorer® medical applications, many sales support tools developed by the marketing department (such as brochures, videos, clinical validation reports) and considerable support from the Company to enable them to be strongly involved in the promotion of technology:
- Participation at the local level in professional conferences and industry and trade shows;
- Organization of workshops to train existing and prospective customers;
- Organization of in situ demonstrations in target medical centers.

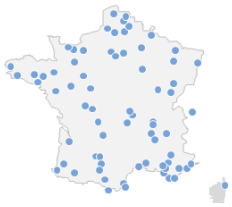
At December 31, 2018, the global sales network was as follows, covering 53 countries (including French overseas departments and territories) and divided into three main geographical areas:

USA



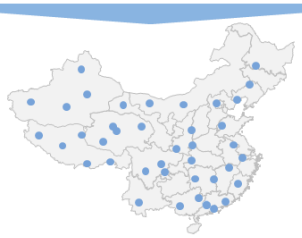
- 4 direct salespeople
  2 clinical support staff
  3 service advisors
- Distributor for Canada and Mexico

France



- 4 direct salespeople
  2 clinical support staff
  3 service advisors
- Distributor for the liver market:
  4 salespeople
- Distributor for Réunion, Martinique and New Caledonia

China



- 25 direct salespeople
  8 clinical support staff
  8 service advisors
- 35 distributors

Other countries

Distributors and partnership with Konica Minolta in Japan

- Installed base

Strengthening the sales network is one of the Company's short- and medium-term priorities. The aim is to implement a strategy of wide-scale roll-out of its equipment and make the most of the opportunities offered by a Premium/High-end market estimated to be worth almost USD 3.6 billion in 2018 (source: IHS Markit 2018) (See Chapter 12 of this document).

6.8.2.2. AFTER-SALES SERVICE

After-sales support is based at the Company headquarters and provided at different levels:

- The distributors provide an after-sales service and can request support from headquarters in the event of technical problems, software changes or process changes;
- The technical training for future distributors who are required to be certified is provided by the Group;
- Each installed system is visited on average twice a year by an after-sales engineer, either for the purposes of preventive maintenance when an upgrade is installed, or when there are difficulties with the software or equipment.

The Group also has after-sales engineers based in China, the United States, France, Singapore and Germany.

6.8.3. Targeted marketing

With 10 employees dedicated to marketing, the department handles marketing communications and organizes the training of the sales team, distributors and customers and the monitoring of clinical studies by physicians.

Product Management

Product managers are between end users, scientists and internal R&D teams. They act both upstream of the creation of a product or application, as well as downstream by being responsive to end users. The product manager has contacts "on the ground" and works with the clinical sites to obtain the

clinical benefits and define the clinical strategy. The division's "product management" is active at the global level.

Training, Clinical and Market Analysis

The main functions of this division are:
Training of sales staff and distributors worldwide. The training sessions are conducted in a one-week online conference or seminar, as the case may be, when new products and applications are introduced and when new sales staff and distributors join the group.
Monitoring clinical activities and liaising with opinion leaders.
Analyzing market data and feedback from users of SuperSonic Imagine products to identify future development opportunities.

Marketing/Communications

The team is responsible for the development of messages and their implementation in the form of multiple communication and marketing materials such as conventions and exhibitions, press relations, brochures, e-mail campaigns, video and social networks.

Partner training sites

In France, the USA and China, the Group has set up spaces dedicated to the training of core clients, to provide training sessions to all physicians who have access to Aixplorer® in their establishment.

A strong presence in major international conferences

The Company is present at international conventions, which correspond to its priority targets. Since 2011, SuperSonic Imagine has participated in 40 international conventions per year.
The most representative annual conventions are:

- European Congress of Radiology (ECR);
- Les Journées Françaises de Radiologie (JFR), where the Company unveiled the Aixplorer MACH 30® to radiologists in 2018;
- Annual Meeting of the Radiology Society of North America (RSNA);
- European Federation of Societies for Ultrasound in Medicine and Biology Ultrasound (Euroson);
- World Federation for Ultrasound in Medicine and Biology (WFUMB), held every two years;
- EASL (European Association for the Study of the Liver);
- AASLD (American Association for the Study of the Liver);
- AIUM (American Institute of Ultrasound in Medicine).

Prior to these conventions, the Company encourages practitioners to submit scientific communication projects to a selection committee, which contain the results of studies to be presented to their peers. In addition, an increasing number of excerpts from the work of specialists concerning the use of Aixplorer® and Aixplorer MACH® 30 applications are presented at these conferences.
For the major conventions, the Company organizes a symposium where it invites practitioners to present the results of their experience with Aixplorer® and Aixplorer MACH® 30.

Press relations

Press relations are an important communication channel for the Company, which primarily targets the trade press, but also develops relationships with the general public, with recent articles in La Tribune, Le Figaro, Les Echos, Le Monde, Femme actuelle, etc.
SuperSonic Imagine attaches particular importance to communication with the general public, which, once educated, can start to make demands. This is why the Company is going to target more extensively women's magazines, men's magazines, health magazines and magazines read by retirees.

For its press relations, the Company calls on a specialist agency for France and French-speaking countries and on an independent agent in the United States.

6.8.4. A production capacity adapted to sustained growth

6.8.4.1. SUBCONTRACTING OF ASSEMBLY TO A "FIRST-RATE" SUBCONTRACTOR FOR INCREASED PRODUCTION FLEXIBILITY

Since 2013, the production of the Aixplorer® platform has been fully subcontracted to Plexus, a global leader in medical device assembly (with a GMP (Good Manufacturing Practice) certificate), with direct provision by suppliers of some components, such as printed circuit boards or plastic parts. It is the largest manufacturer of electronic medical devices worldwide for companies in the ultrasound sector and also supplies other major clients (such as CISCO). The Plexus plant in Malaysia has been responsible for production since 2014.

Plexus produces Aixplorer® devices in their standard configuration. This represents approximately 95% of assembly, in accordance with the specifications defined by SuperSonic Imagine to ensure high-end quality.

The SuperSonic Imagine teams are responsible for final quality control and product configuration, according to each customer's specifications, in addition to final product testing before shipping.

SuperSonic Imagine is keen to continue outsourcing to its partners the stages it currently handles in-house, in order to improve response times to customers while making further savings on transport costs.

The Group will ultimately focus on product design, control of manufacturing processes, quality testing and supply chain, including selection, and relationships with critical suppliers.

6.8.4.2. SELECTED SUBCONTRACTING PARTNERS

To maximize customer satisfaction, the production of the most complex and technical sub-assemblies is outsourced to SuperSonic's strategic partners (this is particularly the case for the power supply, control panels and probes). Supersonic is responsible for monitoring and liaising with these partners.

SuperSonic Imagine strives to identify and select suppliers that have the industrial capacities to support its commercial ambitions. The choice of partners is driven by technical, regulatory and environmental constraints, by production capacity, in line with the Group's ambitions, and by economic considerations and profitability. The selection of partners is made jointly by each of the subgroups in the R&D division in close communication with the procurement department. The R&D department works upstream with subcontractors to produce the first prototypes. The development work is thus done in partnership with them, so as to ensure that the design of the product is compatible with the constraints of their manufacturing processes. Once the pre-industrial phase (subcontractor manufacturing processes) has been validated by the R&D teams, the Supply Chain function takes over.

In terms of logistics, Supersonic Imagine uses different service providers depending on local (country) constraints. Delays in manufacturing are taken into account in order to minimize inventories while ensuring a delivery time to customers in line with market norms.

6.8.4.3. QUALITY ASSURANCE

SuperSonic Imagine has been ISO 13485 certified since 2008. The outside body that issued the ISO 13485 certificate is LNE/G-MED, which is based in Paris, France. The most recent certificate for the 2016 version of the standard is dated October 2, 2018. Certification covers the activities related to the design, development, production, distribution, installation and after-sales service of the products.
In this context, any major changes in the production chain (subcontracting, relocation, etc.) have to be notified to the independent body and may be subject to an audit in order to ensure that the certification is retained.

The Group has also implemented a process of monitoring and evaluation of its suppliers. Critical subcontractors (which supply custom products or have a significant impact on product quality and safety) are committed to a close relationship with the Company. They are required to comply with the specifications established by the Group and to notify or submit for approval any change in their manufacturing chain (raw materials, manufacturing methods and processes, relocation or subcontracting, etc.).

In parallel, the Group's subcontractors are subjected to regular assessments based on various criteria (organization, financial exposure, etc.) by means of assessment questionnaires, and sometimes by means of audits performed by SuperSonic Imagine at their site, depending on their criticality and their own certification.

Since Q4 2016, SuperSonic Imagine has also been ISO 14001 certified, validating and affirming the Company's environmental approach.[A1]. This certification covers the same activities as ISO 13485: 2016.

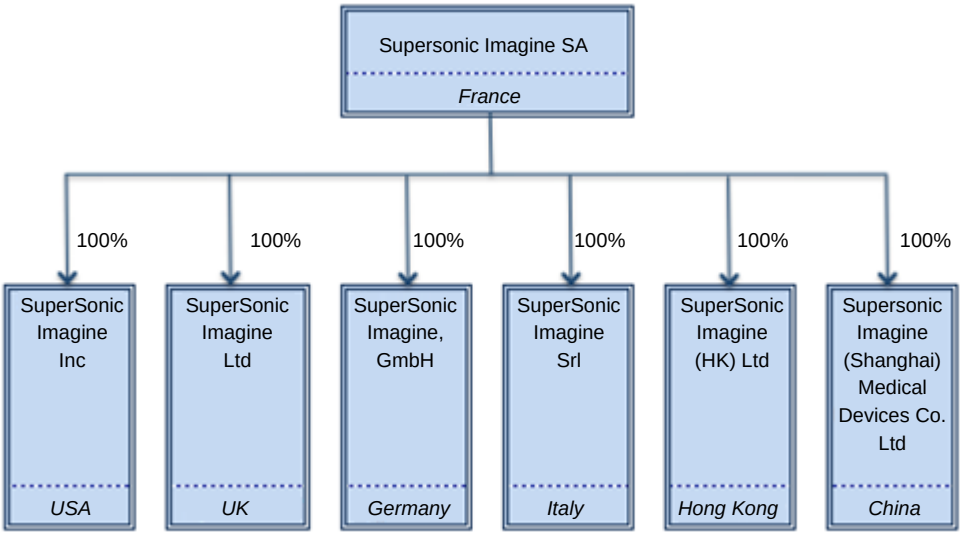
In addition to this business certification, SuperSonic Imagine products are certified according to the CB Scheme program in accordance with IEC 60601-1-2, IEC 60601-1-6, IEC 60601-1 and IEC 60601-2-37.

SuperSonic Imagine products also comply with the applicable U.S. standards according to the NRTL (Nationally Recognized Test Laboratory) mark. In addition, they meet the conformity requirements of products imported into Brazil defined by the National Institute of Metrology, Quality and Technology (INMETRO). This certification signals our commitment to product safety to regulators and to our customers.

The SuperSonic Imagine laboratory is on the list of laboratories recognized by TUV SUD. It is certified according to the TPS ACT program, demonstrating that the laboratory meets the requirements of the ACT program based on certification and testing standards.

7. ORGANIZATIONAL CHART

7.1. GROUP ORGANIZATIONAL STRUCTURE



7.2. LIST OF SUBSIDIARIES, BRANCHES AND SECONDARY ESTABLISHMENTS

The Company currently has six subsidiaries:
SuperSonic Imagine, Inc.: a U.S. subsidiary incorporated in March 2007 and headquartered in Weston, Florida (United States). This entity conducts mostly commercial activity in the United States in addition to marketing. Represented by Michèle Lesieur, this subsidiary had nine employees as of December 31, 2018.

SuperSonic Imagine, Gmbh: a German subsidiary incorporated in March 2008 and headquartered in Munich. This entity markets the Group's product offering in Germany, and develops and manages a network of distributors covering the Northern Europe region. Represented by Jacques Souquet, this subsidiary had two employees as of December 31, 2018.

SuperSonic Imagine (HK) Ltd: incorporated in June 2011 in Hong Kong, the purpose of this subsidiary is to develop the Group's business activities in the Asia-Pacific region excluding China. Represented by Jacques Souquet, this subsidiary had three employees as of December 31, 2018.

SuperSonic Imagine Ltd: incorporated in March 2008, it is represented by Jacques Souquet, and had one employee as of December 2018.

SuperSonic Imagine Srl: the Italian subsidiary established in October 2009. This entity is now dormant, the proposal to develop a direct sales force having been abandoned. It has no employees.

Supersonic Imagine (Shanghai) Medical Devices Co. Ltd: Chinese subsidiary incorporated in December 2015, to develop direct sales in the country. This entity is represented by Michèle Lesieur and had 49 employees as of December 31, 2018.

Key figures for the subsidiaries are as follows:

In thousands of euros		SuperSonic Imagine Inc	SuperSonic Imagine Ltd	SuperSonic Imagine, GmbH	SuperSonic Imagine Srl	SuperSonic Imagine (HK) Ltd	Supersonic Imagine (Shanghai) Medical Devices Co. Ltd
Capital		10,396	1	25	10	1	2,002
Shareholders' equity other than share capital		(29,356)	(2,021)	(3,049)	(33)	189	(182)
Percentage of share capital held		100%	100%	100%	100%	100%	100%
Carrying amount of shares held	Gross	11,209	2	25	10	1	2,000
	Net	-	-	-	-	-	1,721
Loans and advances provided and outstanding, net		-	-	-	-	(228)	(2,408)
Securities and guarantees provided by the company		-	-	700	12	-	-
Revenue 2018		3,481	43	648	-	416	3,862
2018 net income (loss)		(1,429)	(131)	(172)	(2)	39	264
Dividends received by the company		-	-	-	-	-	-

7.3. MAIN INTRA-GROUP FLOWS

There are four types of intra-Group agreements.

ASSISTANCE AND SERVICE AGREEMENTS

An agreement for services was entered into on January 1, 2011 between the Company and its subsidiaries SuperSonic Imagine Inc., SuperSonic Imagine GmbH and SuperSonic Imagine Limited.

This agreement covers the provision of services rendered by the Company to its subsidiaries:

- Administrative services,
- Sales and marketing services,
- Financial and legal assistance,
- Treasury services,
- Human resources.

An amendment to the said agreement was entered into on January 1, 2013 to specify (i) the services that would be delivered and (ii) the terms of billing.

As compensation for these services rendered, the Company invoices its subsidiaries the following amounts:

- Invoicing of the total service cost +12% for administrative services,
- Invoicing of the total service cost +8% for other points covered by the agreement.

During the financial year ended December 31, 2018, the Company invoiced the following amounts to each of its subsidiaries under this agreement:

- €1.07 million to SuperSonic Imagine Inc.;
- €124,000 to SuperSonic Imagine GmbH;
- €15,000 to SuperSonic Imagine Limited.

CASH MANAGEMENT AGREEMENT

A cash management agreement was entered into on January 1, 2011 between the Company and its subsidiaries SuperSonic Imagine Inc., SuperSonic Imagine GmbH, SuperSonic Imagine Limited, SuperSonic Imagine Srl and SuperSonic Imagine (HK) Limited through which it grants them loans and cash advances.
In return for this funding, the Company invoices its subsidiaries for interest calculated on these loans and cash advances at the 3-month Euribor rate plus a 1% margin. Unpaid interest is compounded.

During the fiscal year ended December 31, 2018, the Company charged the following interest to each of its subsidiaries:

- €131,000 to SuperSonic Imagine Inc.;
- €23,000 to SuperSonic Imagine GmbH;
- €14,000 to SuperSonic Imagine Limited;
- None to SuperSonic Imagine Srl;
- None to SuperSonic Imagine (HK) Limited.

PROVISION OF SERVICES AND STAFF AGREEMENT

An agreement for the provision of services and staff entered into on January 1, 2011 between the Company and its subsidiary SuperSonic Imagine Inc. covers the provision of staff to the Company by its U.S. subsidiary.

An amendment to the said agreement was agreed on January 1, 2013 in order to clarify (i) the extent of services that would be provided and (ii) the terms of billing. Accordingly, as compensation for this service, the subsidiary invoices the Company for the total cost of the staff assigned.

During the fiscal year ended December 31, 2018, the agreement covered the provision of a vice president of sales and a director of product management, resulting in €258,000 being invoiced to the Company by its subsidiary.

COMMERCIAL SERVICES AND SUPPORT AGREEMENT

A commercial services and support agreement was signed on January 1, 2011 between the Company and its subsidiary SuperSonic Imagine (HK) Limited to cover the provision of commercial, sales and marketing services rendered to the Company by its subsidiary.

An amendment to the said agreement was entered into on January 1, 2013 to specify the terms of billing.

As compensation, the subsidiary invoices the Company the total cost of these services plus 8%. As such, during the fiscal year ended December 31, 2018, SuperSonic (HK) Limited billed the Company for the amount of €416,000.

On January 1, 2016, the Company signed a service agreement with its subsidiary Supersonic Imagine (Shanghai) Medical Devices Co. Ltd to cover the provision of commercial, sales and marketing services to the Company by its subsidiary.

As such, the services provided by the subsidiary are billed to the Company with a mark-up of 8%. The cost of the services billed during the fiscal year ended December 31, 2018 totaled €3.569 million.

SERVICES AND MARKETING AGREEMENT

A commercial and marketing services agreement was entered into on December 21, 2015 between the Company and its subsidiaries SuperSonic Imagine GmbH and SuperSonic Imagine Limited.
A further one was agreed in January 2016 between the company and Supersonic (Shanghai) Medical device Co. Ltd.

This agreement covers the services provided by the sales and marketing force of the subsidiaries to other Group companies.

As such, during the fiscal year ended December 31, 2018, SuperSonic (GmbH) Limited billed the Company for €312,000 and the Company billed UK for -€91,000.

In addition to these agreements, the agreements described in Section 16.2 of this Registration Document link some members of the Management Board to the Company (the Management Board having been abolished on May 28, 2018).

8. SOCIETAL AND ENVIRONMENTAL INFORMATION AND INFORMATION ABOUT OWNERSHIP

8.1. DESCRIPTION OF REAL ESTATE PROPERTIES

The only premises leased by the Group are as follows:

Headquarters in Aix-en-Provence: the Headquarters consist of two buildings leased from a third party who has no tie with the Company and its managers. The buildings are located at 510, rue René Descartes in Aix-en-Provence. During the expansion into the second building, a new lease was signed replacing the one previously signed in September 2005 for the first building.

The nine-year lease signed on October 1, 2015 and subject to the commercial lease system concerns the rental of two buildings, each comprising a ground floor and first floor covering approximately 1,700 m^2 and 90 outdoor parking spaces. The annual rent is €212,000 excluding charges. A guarantee deposit of €65,000 was paid in cash upon signing the lease agreement.

On June 15, 2015, the Company signed a nine-year lease for additional premises located at 730 rue René Descartes. This qualifies as a commercial lease and comprises the ground floor of a two-story building.
The Company occupies around 410 m^2 of this building and has 20 outdoor parking spaces. The annual rent is €57,000 excluding charges. A guarantee deposit of €15,000 was paid in cash upon signing the lease.

Premises in the United States:
In Miami: the Group occupies furnished offices within a business center. The lease was initially for one year, but was renewed (from January 1, 2018 to December 31, 2018) with a fixed rent of USD 2,650 per month inclusive of tax.

Premises in China:
Representative office in Beijing: The Chinese representative office is located in Beijing, Chaoyang District. Covering an area of about 210 m², these offices are leased from a third party, who has no tie with the Company and its management, under the terms of a lease agreement dated October 15, 2013 and covering a three-year period from December 3, 2016, at an annual rent of RMB 516,000, i.e. approximately €67,000. A guarantee deposit of RMB 78,000 (about €9,000) was paid in cash.
Shanghai office: this office is leased under the terms of a lease agreement covering the period from April 11, 2017 to April 10, 2019 at an annual rent of RMB 339,000, i.e. approximately €44,000.
Shenyang office: this office is leased under the terms of a lease agreement covering the period from March 1, 2017 to February 28, 2020 at an annual rent of RMB 66,000, i.e. approximately €8,600.

The other Group entities only have a postal address.

8.2. ENVIRONMENTAL AND SOCIAL ASPECTS

8.2.1. Corporate information

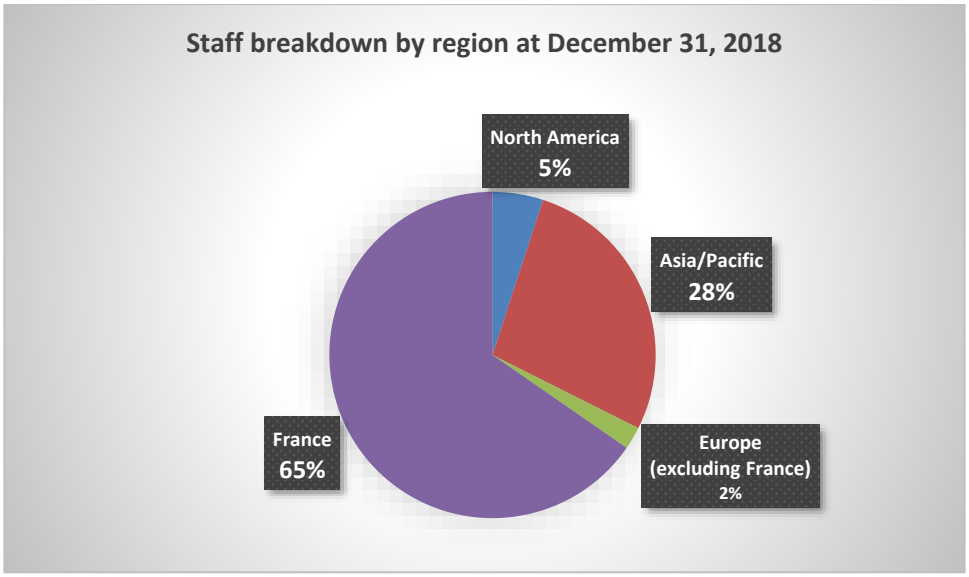
For this fifth year of publication of information relating to the Grenelle II Law, corporate indicators are reported for the full scope of consolidation unless otherwise stated.

- Employment

8.2.1.1. TOTAL WORKFORCE AND DISTRIBUTION OF EMPLOYEES BY GENDER, AGE AND REGION

With its international footprint, the Group employs people of various nationalities, cultures and languages.

As of **December 31, 2018**, the Group had a total of **179 employees** worldwide, versus **172 at December 31, 2017**, excluding vocational training contracts and temporary workers, corresponding to **177.30 full-time equivalent employees**.



Global total: 179

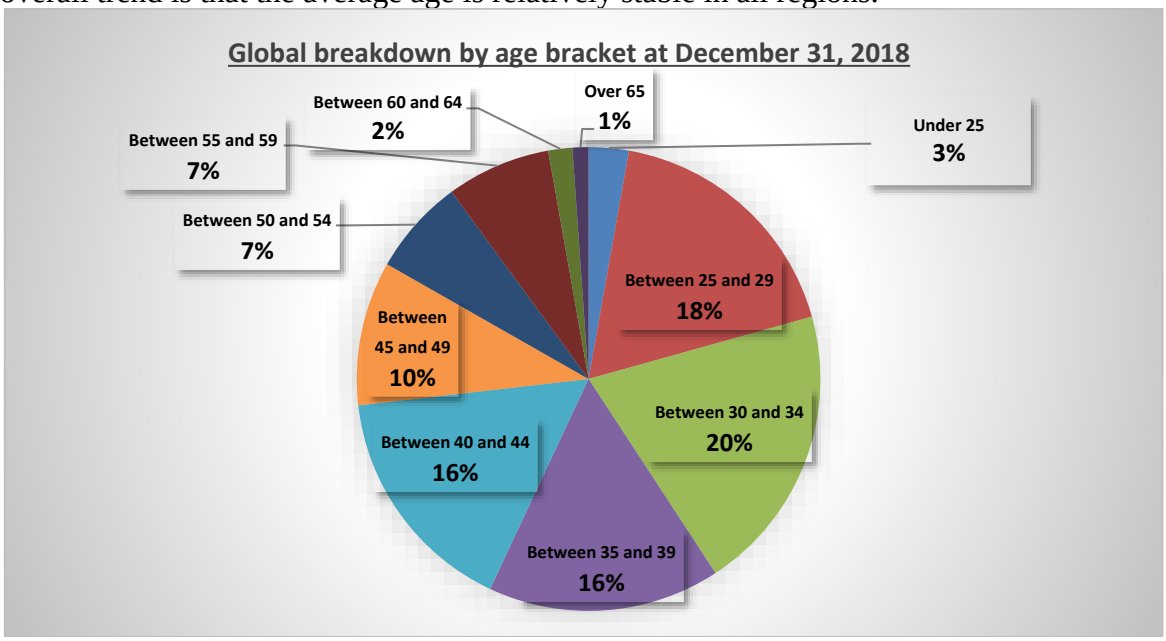
	Dec. 31, 18	Dec. 31, 17
Number of open-ended employment contracts (or local equivalent by country)	173	165
Number of fixed-term employment contracts (France only)	6	7
Total	**179**	**172**
Men	116	111
Women	63	61
% women	**35.2%**	**35.46%**

Distribution of employees by age	Dec. 31, 18	Dec. 31, 17
Under 25 years	5	7
Between 25 and 29 years	32	28
Between 30 and 34 years	36	40
Between 35 and 39 years	29	26
Between 40 and 44 years	29	28
Between 45 and 49 years	18	18
Between 50 and 54 years	12	10
Between 55 and 59 years	13	10
Between 60 and 64 years	3	4
Over 65 years	2	1
Total	**179**	**172**

The **average age** of employees is **38.7 years**, and **36%** of employees are **between 30 and 39 years old**.

More specifically, **the average age of employees is 39.9 years in Europe, 55.6 years in the United States, and 34.9 years in Asia-Pacific.**

The overall trend is that the average age is relatively stable in all regions.



8.2.1.2. NEW HIRES AND DEPARTURES

	Dec. 31, 18	Dec. 31, 17
Hires	53	49
Departures	53	41

In 2018, the Group **hired 53 people, 77.36%** of whom **are on open-ended contracts or the local country equivalent.**

Of the people who left, **37 resigned**, accounting for **70%** of all these departures.

Some of the resignations are in China due to the highly competitive job market in the Company's sector, where competitors lure away candidates with highly attractive offers, on the back of continued strong growth in these countries.

Four departures were due to **dismissals** (**8%**). **10 fixed-term contracts expired** (**19%**). **Two** employees left by **mutual agreement** (4%).

Departure rate[1]	Dec. 31, 18	2017
Group worldwide	30.99%	26.11%

8.2.1.3. COMPENSATION AND CHANGES

The Group's compensation policy has the following objectives:

- Looking for strong consistency with local market practices to ensure competitive compensation levels in each of the countries where the Group operates.
- Providing a link to the Company's performance and contribution of employees to this performance, with respect for fairness among employees.

Executive compensation is explained in Section 15.1 of this Registration Document.

The compensation of the Group's employees therefore consists of:

- **fixed compensation:** assessed in absolute terms and reviewed from year to year;
- **social protection:** consisting mostly of contributions to a pension, reimbursement of medical expenses and disability and death coverage;
- **variable medium-/long-term compensation:** consisting mostly of stock option grants, founders' warrants, stock warrants and free shares (still in force) in an attempt to involve employees more in the Group's success and to improve their performance.

Non-discrimination

For a given job level and an equal level of individual performance, the Group ensures that no wage discrimination takes place due to gender, ethnicity or other reasons.

In thousands of euros	2018	2017
Total payroll	10,691	11,161
Revenue	24,290	24,695
Total payroll/Revenue ratio	**44%**	**45%**

8.2.1.4. ORGANIZATION OF WORKING TIME

The reference working week is set at 35 hours per week for employees in France, pursuant to the Metallurgy Collective Agreement binding on the Company.

However, as stipulated in their employment contracts, and given the technical nature and degree of initiative required for the positions assigned to the Company's managerial staff, it is not bound to follow a specific schedule. All managers must devote the time necessary for the proper performance of their duties, in compliance with applicable legal provisions, including the Collective Agreement based on the allotted number of days for the year (218 days including the day of solidarity described in Article L. 212-16 of the French Labor Code).

[1] Departure rate: number of departures during the period as a percentage of the total workforce at the beginning of the period

For non-managerial staff, the Company's established practice is to work a 37-hour week to allow employees to earn reduced working time (RTT) days.

Use of paid overtime is exceptional, the Company preferring compensatory time off.

The telecommuting agreement established in France in 2014 on a trial basis, and made permanent in 2015 to improve working conditions, is still in force.
For the Company's subsidiaries abroad, working time arrangements are made in compliance with the laws in force in the country.

As of December 31, 2018, there were **eight part-time employees**, compared with seven a year earlier. Four employees work part-time at 80%, two employees work part-time at 90% and two others are on parental leave, working part-time at 80% and 50%, respectively.

	Dec. 31, 18	Dec. 31, 17
Number of part-time employees	8	7
Of which parental leave	*2*	*2*
Total workforce	179	172
Percentage of part-time employees	4.47%	4.06%

8.2.1.5. ABSENTEEISM

This indicator is monitored and controlled locally at each subsidiary. For this fifth report, the Company determined this indicator for France only, to ensure ongoing consistency for comparison purposes.

This is done to define the relationship between the total number of days of absence during a given period and the number of days normally worked in the same period.

Reason	Number of employees affected (France)	Number of absent days in 2018
Illness	45	443
Maternity, Paternity	2	22
Workplace accident	4	44
Of which commuting accident	*3*	*4*
	48	**465**

The rate of absenteeism was **1.74%** in **2018**, compared with 1.33% in 2017.
Although this figure has increased marginally (0.41 percentage points), it is still well below the rate of absenteeism in the private sector, which stood at 4.72% in 2017 (source: *Ayming-AG2R La Mondiale* study).

While the number of employees taking sick leave has risen (48 in 2018, compared with 25 in 2017, or 23 more people), the total number of days off has fallen (465 in 2018, compared with 695 in 2017).

Overall, there has been a **reduction in the average number of days off** per year per employee, from **13 in 2017** to **9.84 in 2018.** Only 10 employees went on sick leave for 10 days or more in 2018.

8.2.1.6. EMPLOYEE REPRESENTATION

Employee-management relations within the Group are based on respect and dialog. In this spirit, employee representatives and Company management meet monthly to discuss, negotiate and conclude agreements and monitor their implementation. Employers are assisted in these meetings by the head of human resources.

In the French entity, the members of the Single Staff Delegation (SSD – Délégation Unique du Personnel, DUP) serve as both employee representatives and works council members. SSD members were first elected in February 2009. It was most **recently** reappointed on **March 14, 2017**. At the same time this employee representative body was converted from an SSD to an **expanded SSD** with the **incorporation of the Health, Safety and Working Conditions Committee (Comité d'Hygiène et de Sécurité des Conditions de Travail – CHSCT)**.

In other countries, if there are no elected employee representatives, the opportunity is given to employees to express their opinions to management and the human resources department of the Company's head office.
At the same time, the Group communicates regularly with employees about its strategy, results, and the progress of projects.

8.2.1.7. SUMMARY OF COLLECTIVE AGREEMENTS

Three agreements with employee representatives are still in force in the Company:

- **A telecommuting agreement** (applicable only to employees of the French entity).

The work organization at SuperSonic Imagine is based on a very flexible model that facilitates frequent adaptations and rearrangements out of concern for efficiency and productivity. In fact, Company employees frequently request such flexible working arrangements, which allow them to work at home up to one day a week, subject to certain technical conditions being met.
This agreement aims in particular to ensure that telecommuting remains an effective solution and that it is undertaken in the mutual interest of the employees and the Company. Its purpose is to combine a need for operational efficiency and flexibility and to improve the work-life balance.

The agreement was made permanent in 2015. In **2018, 16 employees** who applied **were able to benefit from it**.

	2018	2017
Employees benefiting from the agreement (France)	16	7

- **An agreement on carrying over paid leave**, signed with employee representatives in 2015 and which has been made permanent.

This agreement only applies to employees in the French entity, insofar as the labor law and practices in the other Group countries already provide for similar measures. The agreement was inspired by measures that exist in the United States and Germany.

As indicated above, given that the work organization at SuperSonic Imagine is based on a very flexible model, employees regularly ask the Company to carry over their paid leave that hasn't been taken at the end of the reference period.
As a result, given that the Company wanted to move its employees further into line with public policy on paid leave, which applies to both employers and employees, it was decided, in agreement with employee representatives, Works Council members, to establish an agreement on the carrying over of paid leave, governed by the provisions of Article L. 3141-21-1 of the French Labor Code.

The choice of carryover method was based on the desire to involve all company employees in the company's goals and to provide them with the greatest possible flexibility as to when they take their leave. In 2018, **62 employees benefited from this agreement**.

- An **agreement on RTT days** signed with employee representatives in 2018 (France only).

This agreement defines the principles and arrangements for reduced working time (RTT) for employees of the French entity.

In 2006, the Company adopted the standard business practice for calculating RTT days for non-exempt staff. Management then took the decision to scrap this practice and to negotiate an agreement to clarify and formalize the rules concerning reduced working time for both exempt and non-exempt staff.

Non-exempt staff must work a 37-hour week. This is higher than the statutory 35-hour working week, so to compensate them, non-exempt employees are eligible for 12 RTT days annually, accrued between January 1 and December 31 each year.

Exempt staff are contractually entitled to a fixed number of days each year. They are not limited to working a specific number of hours but are expected to devote sufficient time to discharging their duties in accordance with the applicable statutory and contractual provisions.
Full-time employees must work 218 days per year, including the "journée de solidarité", a national fundraising day for the elderly and people with disabilities provided for in Article L.3133-7 et seq. of the French Labor Code. The number of RTT days varies each year depending on the calendar. The calculation methods are laid down in the agreement.

8.2.1.8. WORKPLACE HEALTH AND SAFETY CONDITIONS

The Company constantly strives to ensure that each employee has optimal working conditions.

- **It does this through its health and safety efforts:**
  - The Company has a Health, Safety and Working Conditions Committee which is extremely proactive in health and safety matters. Work on these issues is performed in close collaboration with the Human Resources Department and the Management.

While the Health, Safety and Working Conditions Committee only covers France, employee representatives nevertheless retain a close relationship with foreign staff.

These parties meet as many times as necessary, formally and informally, and each meeting publishes an action plan whose progress is evaluated frequently.

- Regulatory safety courses are regularly offered. Sessions such as "How to Use Fire Extinguishers" or "Rescue Aid Officer" are offered. All employees whose duties require work on live equipment have been issued an "Electric Certification" certificate after special training. These courses are monitored by the Human Resources Department so that retraining arrangements can be made as needed.

- Aixplorer® manufacturing is outsourced to Malaysia and configuration is done at the Company's headquarters in Aix-en-Provence (Configuration To Order – CTO). Equally, there are few safety issues in manufacturing. Nevertheless, managers, who are assisted by the Human Resources Department, ensure that all safety principles are learned by employees through awareness campaigns or in-house training. These efforts occur regularly and are also monitored.

- Lastly, personal protective equipment (PPE) is always available to employees and must be worn if handling anything that requires it. To support its awareness campaigns, posters with basic safety rules to follow are hung in strategic places.

- **At the same time, the Company seeks to ensure that the working conditions are as pleasant as possible and has taken several measures to that end.**
  - Workstations are adapted to everyone's needs and limits: all employees may request to be provided with equipment such as a footrest, noise-canceling headphones to reduce any noise caused by working in open-space areas, or an ergonomic seat.
  - The Company also attaches great importance to work-life balance. This is why all employees have a lot of flexibility in their schedules, under the rules for the organization of working time (see 1.2.1 Organization of working time), and with the consent of their superiors. Employees can therefore organize their time freely, the only restriction being that business-related obligations are observed.

Moreover, as mentioned earlier, the Company has a telecommuting agreement and 16 employees took advantage of it in 2018.

8.2.1.9. WORKPLACE HEALTH AND SAFETY AGREEMENTS

To date, there is no workplace health and safety agreement in effect within the Company.

8.2.1.1. WORKPLACE ACCIDENTS AND OCCUPATIONAL DISEASES

The figures set out below relate to France only.

In 2018, SuperSonic Imagine reported three commuting accidents and one workplace accident, but no occupational diseases.

- Training

8.2.1.2. POLICIES IMPLEMENTED

Training is one of the levers for encouraging innovation. It is of great importance in SuperSonic Imagine.

Although the company's training policy changes from year to year, the desire of the Management to support an innovative atmosphere for all employees remains constant. This is particularly true in Research and Development, and in other departments such as Marketing, Sales, or Support functions, where creativity is always in demand.

Many of the courses included in the plan are technical courses, to keep abreast of developments, learn new methods, or build expertise.

An increasing amount of training also covers the improvement of sales techniques and of the marketing strategy.

Furthermore, the Company is establishing management modules to support employees as they rise into managerial positions.

The company's training plan is divided into the following stages:

- Definition of strategic priorities by Management and Human Resources
- Deployment of needs analysis to employees: each employee can make a request personally, and managers can add individual or group requests for their teams
- Centralization of requests by Human Resources and quantification
- Initial screening of requests with team leaders
- Final decision by Management according to defined strategic priorities and the allotted budget
- Approval of the final training plan after consultation with the Works Council
- Distribution of the training plan to employees
- Implementation

While the training plan more specifically covers France, the company nevertheless occasionally pays for training for employees of foreign entities depending on their needs.
In fact, the foreign-based staff are mostly involved in sales and application functions, alongside service technicians, who require less training than say R&D staff, who have to maintain performance levels and stay up to date with the most recent technological changes in order to successfully complete their development projects.

8.2.1.3. TOTAL NUMBER OF TRAINING HOURS

Since worldwide training figures are not consolidated, they are published for France only in this report. The **French workforce** represents **65.36%** of the Group's **total workforce**.

In 2018, employees in France received **796 training hours**, involving some **40 people**, namely **34%** of staff at the French entity.
In 2018, the average number of hours spent on training was 19.9 hours per trainee.

Employee training:

	2018	2017
Number of employees trained in France	40	48
Number of hours of training	796	675.5

8.2.1.10. MEASURES TAKEN TO PROMOTE GENDER EQUALITY

As of December 31, 2018, the **proportion of women** in the Company's workforce was **35.2%** (i.e. **63 women**) compared with **35.47% as of December 31, 2017** (i.e. **61 women**). This slight decrease is due to recruitment for roles that are more technical and traditionally perceived as more male-dominated.

Women accounted for 33.96% of new hires in 2018, of which 28.30% were middle managers (or the foreign equivalent).

Amongst senior management, **6 of the 16 directors are women**. In percentage terms, this equates to 37.5%, compared with 35% in 2017. This is due to a concerted effort to recruit women for management positions.

	2018	2017
Percentage of women in management positions *(excluding senior management team)*	**37.5%**	**35%**

8.2.1.11. MEASURES TO EMPLOY PEOPLE WITH DISABILITIES

Given its size, the Company has not yet implemented a specific policy for the employment of people with disabilities. In this regard, a contribution of €23,514.40 was paid to AGEFIPH in 2018.

Nevertheless, all positions are open to people with disabilities: the Company in particular posts its job openings on the website of the AGEFIPH (Association de Gestion du Fonds pour l'Insertion professionnelle des Personnes Handicapées) and uses firms specialized in hiring people with disabilities. Few applications are presented, primarily due to a mismatch of skills to the profiles of open positions.

The Company also employs various measures to promote employment and integration of workers with disabilities, such as when it used several organizations that help people with disabilities back into work (ESATs) for a number of office supply orders.

8.2.1.12. ANTI-DISCRIMINATION POLICY

The Company does not have an anti-discrimination policy, but it believes that its practices are not discriminatory. It undertakes to act in a non-discriminatory manner to ensure the equal treatment of individuals regardless of their nationality, gender, race or ethnic origin, religion or beliefs, disability, sexual orientation or age. The Company commits to hiring young people and people with disabilities and to retaining older employees as well as to gender equality.

Furthermore, during annual reviews and annual salary increases, the Company verifies that no discrimination in terms of career management and compensation is taking place among its employees.

The **percentage of women** in the Company fell by a marginal 0.26 percentage points, from 35.46% in 2017 to **35.20%** in **2018**. By contrast, the percentage of **women in management positions** rose by 2.5 percentage points, from 35% in 2017 to **37.5%** in **2018**.

8.2.1.13. PROMOTION AND ENFORCEMENT OF THE PROVISIONS OF THE FUNDAMENTAL CONVENTIONS OF THE INTERNATIONAL LABOR ORGANIZATION

The Group has promised to comply with the following stipulations:

- A fair wage policy (compliance with contractual salary scales as a minimum);
- Zero-tolerance of bullying or physical harassment;
- Zero-tolerance of all forms of discrimination in employment and professional life.

As the Company's workforce is comprised of highly qualified staff, who are assertive, such issues do not apply to them.

8.2.1.14. RESPECT FOR FREEDOM OF ASSOCIATION AND THE RIGHT TO COLLECTIVE BARGAINING

The Group has promised to comply with the ILO (International Labor Organization) Declaration on Fundamental Principles and Rights at Work, in particular with respect to the freedom of association and right to collective bargaining.

8.2.1.15. ELIMINATION OF DISCRIMINATION IN EMPLOYMENT AND PROFESSIONAL LIFE

The Company does not have an anti-discrimination policy, but it believes that its practices are not discriminatory.

8.2.1.16. ELIMINATION OF FORCED OR COMPULSORY LABOR

The Company has no manufacturing activity in a country where the practice of forced or compulsory labor might still exist.
Production of Aixplorer® is outsourced to a U.S. group that manufactures the device at its plant in Malaysia. Nevertheless, despite the geographical location of the plant, risk is limited because the U.S. Company applies strong internal controls and carries out internal audits on its sites.

8.2.1.17. EFFECTIVE ABOLITION OF CHILD LABOR

The Group has no manufacturing activity in a country where the practice of child labor might still exist.
Production of Aixplorer® is outsourced to a U.S. group that manufactures the device at its plant in Malaysia. Nevertheless, despite the geographical location of the plant, risk is limited because the U.S. Company applies strong internal controls and carries out internal audits on its sites.

8.2.2. Environmental information

For this year of publication of information relating to the Grenelle II Law, environmental indicators are reported for France only. Wherever possible, the Company will expand its scope of reporting to its subsidiaries in the coming years.

8.2.2.1. GENERAL ENVIRONMENTAL POLICY

8.2.2.1. THE ORGANIZATIONAL STRUCTURE OF THE COMPANY TAKES INTO ACCOUNT ENVIRONMENTAL ISSUES AND, WHERE APPROPRIATE, ENVIRONMENTAL ASSESSMENT AND CERTIFICATION PROCEDURES

Due to the outsourcing of its industrial manufacturing, the Group believes that its environmental impact is low.
The bulk of research and development activities take place at the head office. These activities do not include industrial manufacturing or distribution, and therefore do not generate significant consumption of raw materials or significant emissions into the environment or greenhouse gases.

However, one of the selection criteria used by the Company regarding suppliers or carriers is that the supplier or carrier has environmental certification or at least is working towards one.

Furthermore, in order to achieve responsible environmental management, the Company undertakes to voluntarily establish an environmental management system benefiting its customers and investors. It thus obtained ISO 14001:2015 certification from LNE.

In achieving this certification, SuperSonic Imagine shows that it is heavily committed to limiting the environmental impact of its business and its desire to improve its environmental performance. It accordingly reflects its desire to design eco-friendly products and to involve all its employees in this approach.

8.2.2.2. ENVIRONMENTAL PROTECTION TRAINING AND INFORMATION CAMPAIGNS FOR EMPLOYEES

As part of its **ISO 14001:2015** certification, the Company raises the awareness of all its employees, and more specifically those at its French site affected by this standard, by means of regular briefings: best cooling/heating management practices, recycling of certain waste, and light management in workspaces for example.

Similarly, every new hire receives training from the Quality Assurance service on the standard's best management practices: its purpose, the resources put in place and the benefits.

8.2.2.3. RESOURCES DEVOTED TO ENVIRONMENTAL RISK AND POLLUTION PREVENTION

This section only applies to France and more particularly the headquarters.

Our Environmental Management System, which was recently recognized with receipt of **ISO 14001** certification, allows us to determine, manage, oversee and control environmental-related risks, which must be considered to prevent or reduce undesirable effects.

We have therefore identified the environmental aspects of our operations, products and services that we can control and that we can influence, along with the related environmental impacts, from a life cycle perspective.

To this end, an environmental analysis was undertaken to determine what aspects have or may have a major environmental impact, using established criteria (risk rating grid).

This analysis allowed us to take measures to prevent or mitigate the adverse environmental impacts of emergency situations and assess their effectiveness.

For example,

- Our waste of electrical and electronic equipment (WEEE) is managed under our contract with Recylum, an environmental organization that collects and recycles our WEEE and ultrasound waste from the Aix site and customer sites;
- Used office paper and mixed waste (plastic cups and bottles, ink cartridges) is collected using selective sorting bins and then recycled and recovered by the ELISE Group;

- Our hydrocarbon consumption is managed through grouped or optimized shipping, and our carriers are chosen based on the environmental policies (**ISO 14001** certified or with a sustainable environmental approach);
- A policy to reduce/improve packaging was put in place by SuperSonic Imagine and gave rise to new packaging (outer and inner) made from recycled wood;
- Our probes are designed to be repaired, which is currently handled by our subcontractors, when the detected fault can be repaired;
- The alcohol wipes used in our lab are recycled using special containers, which are collected by an accredited third party;
- The potential risk of spills of petroleum products in the parking areas was identified and is managed using an oil separator with a trap installed for the entire building, but also by means of an oil absorber available on the premises;
- The risk of refrigerant leaks causing ground and air pollution is managed through the annual maintenance of air-conditioning systems;
- Lastly, fire risk is managed through the maintenance of extinguishers, but also by training some of our employees in their use.

8.2.2.4. THE AMOUNT OF PROVISIONS AND GUARANTEES FOR ENVIRONMENTAL RISKS, PROVIDED THAT SUCH INFORMATION IS NOT LIKELY TO CAUSE SERIOUS HARM TO THE COMPANY IN ONGOING LITIGATION

The Group has not recorded provisions and guarantees for environmental risks.

8.2.2.5. POLLUTION AND WASTE MANAGEMENT

8.2.2.1. MEASURES TO PREVENT AIR, WATER AND SOIL EMISSIONS

Air emissions
Laboratory emissions are captured and filtered by special vents that are periodically maintained and inspected.
Similarly, the Company regularly inspects the air conditioning system (hot/cold production) to limit the risk of refrigerant leaks.

Water emissions
SuperSonic Imagine's business activity generates no direct water emissions.

Soil emissions
SuperSonic Imagine's business activity generates no direct soil emissions.

8.2.2.2. WASTE RECYCLING AND DISPOSAL MEASURES

The Company sorts its waste, and to this end has installed containers for collection of paper/cardboard and other waste on its site in Aix-en-Provence:

There are permanent dumpsters for recycling paper/cardboard:

- **two dumpsters** installed by VEOLIA are managed by the ASL (Association Syndicale Libre) for the whole business park where the Company is based at Aix-en-Provence (which has five

buildings, of which two are occupied by the company), one of which is for paper/cardboard and the other Non-Hazardous Industrial Waste (NHIW);
- **one dumpster** set up by 13RECYCLAGE is managed directly by the Company.

In order to improve reporting, the VEOLIA dumpsters used by SuperSonic Imagine were placed in such a way as to make access to them more difficult for other companies on the site. It is not, however, possible to conduct a more detailed analysis of the waste recycled, seeing that access to the dumpsters is unrestricted.

Service provider	2018	2017
Non-Hazardous Industrial Waste	16.19 T	13.14 T
Recycled waste	1.738 T	6.624 T

Awareness campaigns targeting Company employees were carried out, with regular refreshers. The **ISO 14001:2015 certification obtained at end-2016** along with training of new hires in this standard enhances this approach.
NHIW has increased by **23.21%** by comparison with 2017.
Recycled waste accounted for **10.73%** of total waste in **2018**.

In addition, as part of its **ISO 14001:2015** certification, the Company has recourse to a service provider (ELISE), which is tasked with recycling and recovering office waste (paper, printer cartridges, plastic cups and bottles) while creating socially responsible jobs.

Accordingly, bins to collect these different waste items are installed on the premises and employees are trained and receive regular refreshers regarding their proper usage.
For 2018, ELISE reported:
- **868 kilos of paper/cardboard collected and recycled** (i.e. 9 hours of work entrusted to people experiencing hardship). For reference, this represents a saving equivalent to 15 uncut trees, 20 m3 of water saved, 4,340 kWh of energy saved (i.e. 10 months of electricity consumption for a single household), or 260 kg of CO_2 not emitted.
- **44.5 kilos of plastic** (bottles and cups) collected and recycled, and **2.5 kilos of cans**.
- **44 kilos of ink and toner cartridges** collected and recycled.

Furthermore, in order to limit a certain category of waste, the Company continued using rechargeable batteries, which, besides their clear economic benefit, have undeniable environmental advantages.
Since 2015, each department has had a charger and a set of batteries to ensure better rotation and optimal management regarding battery usage.

Lastly, waste electrical and electronic equipment (WEEE) is managed under a contract with Recylum, an environmental organization that collects and recycles our WEEE and ultrasound waste primarily from the Aix site and client sites (France only).

8.2.2.6. NOISE POLLUTION

This indicator is not relevant in the case of SuperSonic Imagine because:
- Production is outsourced;
- The company's business activity takes place in buildings (that consist of offices and laboratories) located in a business park.

8.2.2.7. SUSTAINABLE USE OF RESOURCES

8.2.2.1. WATER CONSUMPTION

The Company's water consumption is mainly for sanitary purposes and employees are aware of ways that this natural resource may be used reasonably.

	2018	2017
Consumption of water distributed to common areas (estimate)	2,211 m3	1,985 m3

Water consumption has increased, which could be partly due to the overall increase of 6% in the number of employees at the French site.

Because this figure refers to average consumption at a site consisting of six buildings, five of which are occupied (two by the Company), the consumption of neighboring buildings may affect overall consumption.

8.2.2.2. CONSUMPTION OF RAW MATERIALS

The main raw material consumed is paper. As with water, employees are made aware of the need for smart consumption, and awareness campaigns are regularly run within the Company.

The printing equipment was upgraded in 2016, enabling paper consumption to be monitored more closely. Duplex printing was also introduced to reduce paper consumption. There was a sharp fall in this consumption between 2018 (11.81 T) and 2017 (14.32 T).

	2018	2017
Paper consumption (in Metric Tons)	11.81	14.32

8.2.2.3. ENERGY CONSUMPTION

The energy consumed on the SuperSonic Imagine site is mainly from electricity consumption for heating and cooling of buildings and the operation of laboratory facilities and computer equipment.

	2018	2017
Energy consumption	390,593 kWh	339,116 kWh

There was a sharp increase (+15%) in power consumption at the headquarters in 2018, which could be due to several factors:

- the launch of the new product in 2018 led to an increase in the number of Aixplorer systems in some departments, with old systems still in use and new systems being added;
- testing of the new Aixplorer MACH 30 requires several machines to remain permanently switched on in order to run the tests;
- computers must also remain switched on for remote working in some departments;
- lastly, several issues with the air conditioning/heating system, which were resolved during the year, may have affected electricity consumption.

At present, the Company does not use any form of renewable energy to meet its energy needs.

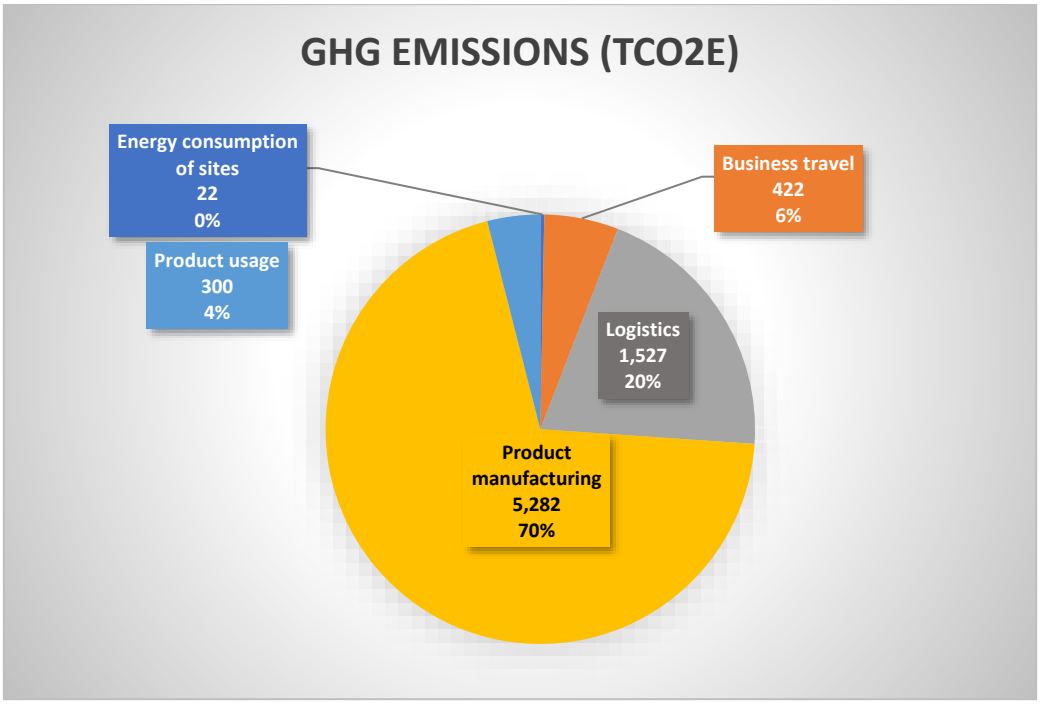
8.2.2.4. LAND USE

Manufacturing is outsourced and the activities are located in two buildings situated in a business park. The total area of the premises is around **2,092 m2** (two buildings of 843 m2 and 842 m2 and a ground floor of 410 m2).

8.2.2.8. CLIMATE CHANGE

8.2.2.1. GREENHOUSE GAS EMISSIONS

Greenhouse gas emissions are mainly linked to employee travel as well as the manufacture, transport and usage of our products.



- CO2 emissions from power consumption:

	2018	2017
CO2 emissions from power consumption (*CO2 emissions factor for electricity, according to the definition provided by the French Environment and Energy Management Agency (ADEME), was 0.0571 in 2018, based on the average consumption mix)*	22,303 kg	21,940kg

- CO2 **emissions** from employee travel from January 1 to December 31, 2018:
  ⇒ **422,116 kg CO2 equivalent** (versus 248,512 kg at December 31, 2017). This total includes air and rail transport. This increase was driven by two factors: the fact that manufacturing is based in Malaysia, resulting in significant travel and more long-haul trips in connection with the development and manufacturing of the new Aixplorer® MACH 30, and the inclusion of travel by the sales force in the United States in this calculation, which was not counted in the previous year.

For the 2018 fiscal year, the calculation of CO2 emissions covers air and rail travel arranged via the booking system available to employees in France, as well as air travel by employees in the United States, booked through the travel agency.

- In 2018, in order to calculate the carbon footprint more accurately, **goods transport** was factored in, and specifically the CO2 impact of the Company's largest carriers, one of which had not been included in the previous year:
  ⇒ **1,526,899 kg** CO2 equivalent (World scope, from the French headquarters)

Greenhouse gas emissions are mainly linked to our employee travel as well as the manufacture, transport and usage of our products.

8.2.2.2. ADAPTATION TO CLIMATE CHANGE

No specific measures have been put in place.

8.2.2.9. PROTECTION OF BIODIVERSITY

The Company's offices are located in an area of professional activity, and its operations have no significant impact on biodiversity. No special protective measures were taken.

8.2.3. Societal information

8.2.3.1. TERRITORIAL, ECONOMIC AND SOCIAL IMPACT OF THE COMPANY

8.2.3.1. EMPLOYMENT AND REGIONAL DEVELOPMENT

The Group employs 179 people of different nationalities on different sites, most of whom are trained in France.

Despite having experienced a strong growth over the last 10 years, a still-growing SME such as SuperSonic Imagine can have only a limited impact on employment and development in an area such as Provence Alpes Côte d'Azur, but it is nevertheless important to emphasize the **non-negligible growth in its workforce**.

More indirectly, the Company regularly employs service providers for specific developments, thereby creating employment.

8.2.3.2. ON LOCAL POPULATIONS

The Company makes every effort to encourage relationships with local engineering, business and other local schools, to find candidates for internships, and regularly works with the employment agencies located in the region.

Similarly, for the maintenance of its offices and buildings, the Company uses local service companies.

8.2.3.2. RELATIONSHIPS WITH PERSONS OR ORGANIZATIONS WITH A STAKE IN THE COMPANY'S ACTIVITY

8.2.3.1. MANNER OF DIALOG WITH SUCH PERSONS OR ORGANIZATIONS

The SuperSonic Imagine Quality Assurance & Regulatory Affairs Department is in regular contact with various bodies:

- The notified body (LNE-GMed) and the certification bodies (QPS, TUV Sud, TUV Rheinland Brazil). These bodies carry out regular audits to ensure:
  - **Compliance with the requirements of the ISO 13485 and ISO 14001 standards** (quality management system for medical devices & environmental management system)
  - **Compliance with technical standards that ensure the safety of our equipment** (60601-1 and 60601-1-2 standards, and other equivalent standards, IEC 60601-2-37, IEC 62304, IEC 62366, etc.)
  - Maintaining our laboratory ISO 17025 certification.
  - The specific marks required in certain countries (USA, Canada, Brazil).
- The competent authorities of various countries/regions around the world: ANSM (French National Agency for Medicines and Health Products Safety), FDA (Food and Drug Administration), Health Canada, KFDA, etc.
- Distributors, which make it possible to grow sales in their geographic area.
- Recycling companies (Recylum, Elise).

The Company is a member of SNITEM (the French National Medical Technology Industry Union).

It also has contractual dealings with Recylum and Bureau Veritas.

These regular contacts make it possible to:

- monitor changing standards and regulations;
- ensure compliance with applicable global or local requirements;
- contribute to the Company's environmental approach.

8.2.3.2. PARTNERSHIPS AND SPONSORSHIPS

The Company does not currently engage in corporate philanthropic actions.

8.2.3.3. SUBCONTRACTORS AND SUPPLIERS

Importance of outsourcing and consideration of social and environmental responsibility in relationships with suppliers and subcontractors

Industrial production and R&D purchases (excluding shipping) totaled €13,465,365 in 2018, down 11.51% from the previous year. This was driven by the reduction in development and industrialization costs, mainly incurred in the previous fiscal year and which led to a new ultrasound device being released on the market in 2018.

To manufacture these products, SuperSonic Imagine works with specialist outside firms based in France and abroad, with recognized technical skills and expertise, to ensure a high level of quality, innovation, competitiveness and safety.

The use of outsourcing is governed by a procurement policy, an industrial procurement management process and related procedures. SuperSonic Imagine closely controls outsourced activities and ensures that health, safety and environmental protection requirements are taken on board throughout the procurement process.

In particular a procedure has been put in place to govern the selection and (re)qualification of suppliers/subcontractors that defines SuperSonic Imagine's demands having regard to the criticality of these suppliers. For SuperSonic Imagine, critical supplier means:

- a supplier of Aixplorer® parts with a potential impact on the safety and effectiveness of the finished product; and/or
- a single source supplier.

The criteria applied include: quality certification (ISO9001, 13485, 14001), compliance with the RoHS and REACH directives, the HSE policy, and the anti-corruption policy.

In addition to these items and to underpin this environmental approach vis-à-vis our suppliers, following the Company's ISO 14001 certification obtained in 2016, a quality and environmental questionnaire was prepared and sent out to all critical suppliers. Environmental and societal criteria have also been incorporated into the general selection criteria for strategic partners.

Accordingly, the main subcontractor Plexus, which is responsible for manufacturing ultrasound platforms in the Aixplorer® range, meets the following requirements:

- RoHS & REACH compliance;
- ISO 14001 certification;
- A code of conduct and ethics;
- A code of conduct and ethics for its own suppliers;
- Declaration of a protection policy to combat human trafficking;
- Membership of the Electronic Industry Citizenship Coalition (this code sets out rules designed to ensure safe working conditions throughout the electronic sector's supply chain, dignified and fair treatment of employees, and operations that are ethical and environmentally sustainable).

SuperSonic Imagine's Procurement Department systematically verifies supplier best practices and ensures, with the support of the Quality team, that the procedure is followed. Compliance with requirements is verified by means of telephone calls, regular site visits by company employees and quality audits.

SuperSonic Imagine is ISO 13485 and ISO 14001 certified, and complies with US, Canadian, Taiwanese, Brazilian, Japanese, South Korean and Chinese requirements.

The scope of certification covers the whole value chain, from design to after-sales service.

All critical suppliers/subcontractors are, in addition to regular visits and conference calls, audited at least every 3 years based on the criteria set out in the above paragraph.

Supplier audits, as part of a listing decision or during manufacturing, are done by a team of internal auditors trained in the requirements of ISO 13485, and since 2016 in the requirements of ISO 14001. The schedule of supplier audits is prepared annually.

8.2.3.4. FAIR PRACTICES

8.2.3.1. ANTI-CORRUPTION EFFORTS

In 2014, SuperSonic Imagine updated its rules to include an anti-corruption charter. In France, a copy is given to all Company employees, who must acknowledge receipt and state that they have reviewed it.

For foreign entities, an English version (Code of Conduct) that includes the anti-corruption charter is given to all employees, who, similarly, must acknowledge receipt and state that they have reviewed it.

Moreover, the Company has updated its standard distribution agreement, incorporating an anti-corruption clause and questionnaires. All new distributors must sign a contract with these stronger terms and the Company is in the process of having all long-standing distributors sign new contracts or amendments to comply with the new clause.

In the same context, a code of interactions with health professionals has been established to properly inform all Group employees of the rules to be observed in this context.

Furthermore, in order to have a proactive anti-corruption approach, at end-2015 the company launched an e-learning module to raise awareness among employees and distributors. The module combines theory, activities and case studies. All distributors that currently have contracts with the company and all employees likely to be in contact with customers have been enrolled in this e-learning module.

When creating this e-learning module, a whistleblowing system was established by the company, so that employees or distributors can report any unethical behavior or behavior that contravenes anti-corruption rules. These whistleblowing alerts are made by emailing a secure email address, which is only read by the CFO and the Head of Human Resources.

SuperSonic Imagine complies with all global anti-corruption laws, including the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the United Nations Convention against Corruption (UNCAC) and other international anti-corruption laws such as for example the UK Bribery Act 2010.

8.2.3.2. MEASURES TAKEN TO PROMOTE CONSUMER HEALTH AND SAFETY

Since it is in the medical imaging sector, the health and safety of patients and users are at the heart of SuperSonic Imagine's requirements.

The Company is ISO 13485 certified and passed inspections by the FDA (U.S. Food and Drug Administration) in 2014 and 2018. Our manufacturing is audited at least every six months as part of US/Canadian and Brazilian inspections. Our laboratory is also accredited (ISO 17025). All these audits and inspections make it possible to ensure that the design and manufacturing of our devices are done in an environment and based on a methodology that are well-controlled.

The ultrasound ranges (Aixplorer®, Aixplorer® Ultimate, Aixplorer® MACH 30) are designed by our teams in Aix-en-Provence in accordance with a strictly defined process (expression of needs, technical and functional specifications, prototyping, verification/validation, transfer to Production and Service).

Before being released into the field and the renewal of any registration, the device is certified by an external accredited body, which guarantees the safety and performance of our product in electrical, mechanical, acoustic, electromagnetic compatibility, software validation and usability terms. This certification is recognized worldwide (CB scheme).

Our ultrasound systems have the most reliable safety guarantees because they have received the CE mark and 510(k) clearance in the USA and in over 60 countries worldwide.

In addition, procedures for handling customer complaints, Post-production monitoring, and medical device reporting are in place at SuperSonic Imagine.

It should be mentioned that the Company has not had an instance of medical device reporting (FCA level 1), recall since 2012.

8.2.3.5. HUMAN RIGHTS

8.2.3.1. ACTIONS TAKEN TO SUPPORT HUMAN RIGHTS

Although it did not take any actions to support human rights, respect for human rights is one of the values held by the Company, which believes that these principles apply to individuals, nations, and by extension to businesses.

9. OPERATING AND FINANCIAL REVIEW

9.1. GENERAL OVERVIEW

The information below concerning the review of the Group's results and financial position is solely based on the consolidated financial statements under IFRS that appear in Section 20.1 of this Registration Document and must be read in conjunction with the rest of the Registration Document.

It should be noted that the following information can be found in Sections:

- 20.1: the procedures for preparing the consolidated financial statements;
- 6: description of the company's business;
- 20.1: details of the nature of the various line items;
- 6.3: the Group's breakthrough technology.

9.1.1. Pro forma financial statements

None.

9.1.2. Main factors affecting the business and its results

Since inception, the Company has carried out significant technological developments, which required significant investments and generated significant losses.

These efforts have allowed it to:

- Consistently improve its existing products, as well as its development and manufacturing procedures, and launch new development projects;
- Very significantly expand its commercial offering and the addressable markets;
- Pursue clinical studies allowing it to create a differentiated positioning based on diagnostic performance;
- Improve its subcontractor selection and manufacturing processes;
- Obtain the first CE mark in March 2009 and the first FDA 510(k) clearance in August 2009;
- Obtain marketing authorization in China in July 2010;
- Obtain ISO 14001 certification in 2016, confirming the company's environmental approach.

In terms of Quality Assurance and Regulatory Affairs, the company's ISO 13485 certification, which is essential for its business, was obtained in 2008 and has been continuously renewed. This enables the Company to comply with the regulatory requirements governing its industry, as well as set the required stringency level and appropriate methods for the development, manufacturing and marketing of innovative medical devices. In 2018, the company obtained FDA 510(k) clearance in June and the CE mark in July for its new Aixplorer MACH 30 platform.

2018 saw revenue hold up well, rising 2% at constant exchange rates. Of particular note is the growth in services in 2018 (+27%) due to the ongoing expansion in the installed base.

The Company experiences seasonality with a major portion of its revenue generated in Q4, as is normal in the sector.

In 2018, the company reduced its outlay on R&D following completion of work to develop the new platform but it continues to invest to keep its technological edge.

9.2. TWO-YEAR COMPARISON

9.2.1. Business performance

9.2.1.1. INCOME STATEMENT

The income statement for the period can be summarized as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017*
Revenue	24,290	24,695
Other income	338	0
Revenue	**24,628**	**24,695**
Cost of sales	(13,530)	(13,608)
Gross margin	**11,098**	**11,088**
Gross margin on revenue [(1)]	**10,760**	**11,088**
Gross margin as a % of revenue [(2)]	***44.3%***	***44.9%***
Research and development expenses	(3,178)	(2,051)
Selling and marketing expenses	(11,685)	(11,732)
General and administrative expenses	(4,374)	(5,099)
Operating expenses	(1,497)	(1,791)
Other operating income / (expenses)	21	(294)
Current operating income (loss)	**(9,615)**	**(9,880)**
Other non-current operating income/(expense)	(1,674)	-
Operating income (loss)	**(11,290)**	**(9,880)**
Financial income	16	6
Financial expenses	(1,960)	(2,410)
Financial income (loss)	**(1,944)**	**(2,405)**
Income (loss) before tax	**(13,234)**	**(12,285)**
Income tax expense	(61)	38
Net income (loss)	**(13,294)**	**(12,247)**

(1) Gross margin on revenue = Revenue – Cost of sales
(2) Percentage gross margin on revenue = Gross margin on revenue/Revenue
(3) Changes were made to the presentation of the income statement. As a result, the income statement presented above for December 31, 2017 differs from the one published at December 31, 2017. See details in Note 24 to the consolidated financial statements in Section 20.1.

9.2.1.2. REVENUE AND OTHER OPERATING INCOME

Breakdown of revenue by type

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017	Change Amount	Change %
Revenue	24,290	24,695	-405	-2%
Other income	338	-	338	100%

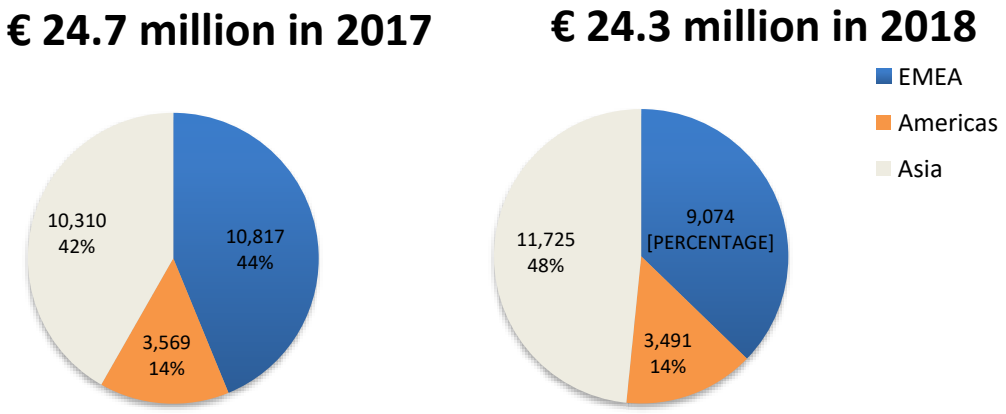
Group revenue, which was € 24.3 million in 2018, was down 2% from 2017 (+1% at constant exchange rates).

In 2018, the company signed its first industrial partnership agreement with a U.S. company, with the first revenue from this new activity amounting to € 338,000.

Geographical distribution of sales

In thousands of euros	Dec. 31, 2018	%	Dec. 31, 2017	%	Delta	%
EMEA	9,074	37%	10,817	44%	(1,743)	-16%
Americas	3,491	14%	3,569	14%	(78)	-2%
Asia	11,725	48%	10,310	42%	1,414	14%
Total	**24,290**	**100%**	**24,695**	**100%**	**-405**	**-2%**

The Asian share continues to increase on the back of sales growth in China.



In 2018, at constant exchange rates, China continued to see sharp growth (+33%), while the U.S. grew 4% and sales in France fell sharply (-41%). This disappointing performance in France was due i) to a contraction in the French sonography market in the radiology segment since early 2018 and ii) to the delay in launching the Aixplorer MACH 30, which had an impact from Q2 2018.

Overall, sales in Asia were up +18% at constant exchange rates. The Americas region fell -2% and EMEA was down -16% due to the temporary decline in sales seen in France. Outside France, the EMEA region grew at a sharp +6% year-on-year.

Revenue by sales channel

Revenue by distribution channel is as follows:

In thousands of euros	Dec. 31, 2018	%	Dec. 31, 2017	%
Direct	16,309	67%	16,587	67%
Indirect	7,981	33%	8,108	33%
Total	**24,290**	**100%**	**24,695**	**100%**

The direct and indirect sales share was unchanged year-on-year.

Revenue by Product – Services

In thousands of euros	Dec. 31, 2018	%	Dec. 31, 2017	%
Sale of goods	20,653	85%	21,827	88%
Sale of services	3,637	15%	2,869	12%
Total	**24,290**	**100%**	**24,695**	**100%**

Product sales totaled €20.7 million, down -5% (-3% at constant exchange rates), while services sales rose +27% (+29% at constant exchange rates) to €3.6 million.

9.2.1.3. COST OF SALES AND GROSS MARGIN

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Revenue from Products	20,653	21,827
Revenue from Services	3,637	2,869
Other income	338	-
Total revenue	**24,628**	**24,695**
Cost of sales	(13,530)	(13,608)
Gross margin on total revenue	**11,098**	**11,088**
Gross margin as a % of total revenue	*45.1%*	*44.9%*
Gross margin on revenue	**10,760**	**11,088**
Gross margin as a % of revenue	*44.3%*	*44.9%*

(1) Gross margin on revenue = Revenue – Cost of sales
(2) Percentage gross margin on revenue = Gross margin on revenue/Revenue

The percentage gross margin on total revenue rose +0.2 points to 45.1% in 2018, from 44.9% in 2017. The gross margin corresponds to total revenue (€24.628 million) minus the cost of sales (€13.530 million).

The gross margin on revenue corresponds to revenue (€24.290 million) minus the cost of equipment and service sales.

The cost of equipment sales includes:

- The cost of purchasing raw materials and components;
- The cost of manufacturing done in Malaysia and assembly;
- Provision for warranties;
- Royalties due;
- Provisions for write-down of inventory due to obsolescence and scrapping.

The service cost includes:

- The cost of purchasing spare parts;
- Provision for warranties;
- Overheads pertaining to after-sales service;
- Provisions for inventory impairment of spare parts for after-sales service and parts sent back from the field

The percentage gross margin on revenue was flat at 44.3% in 2018, compared with 44.9% in 2017. The gross margin on revenue from sales of systems improved while the gross margin on revenue from services declined. This was primarily due to the increase in provisions for spare parts inventory.

9.2.1.4. OPERATING EXPENSES

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017*
Research and development expenses	(3,178)	(2,051)
Selling and marketing expenses	(11,685)	(11,732)
General and administrative expenses	(4,374)	(5,099)
Operating expenses	(1,497)	(1,791)
Other operating income / (expenses)	21	(294)
Current operating expenses	**(20,713)**	**(20,968)**

Thanks to cost control, operating expenses were down €0.3 million to €20.7 million in 2018 compared with €21.0 million in 2019.

*Changes were made to the presentation of the income statement. As a result, the income statement presented above at December 31, 2017 and in the following tables differs from what was published at December 31, 2017. Details of the changes can be found in Note 24 to the consolidated financial statements presented in Section 20.1 of this document.

9.2.1.5. RESEARCH AND DEVELOPMENT EXPENSES

The bulk of R&D expenses are capitalized provided they satisfy the criteria in IAS 38. An individual analysis must be done of R&D expenses incurred (regardless of the accounting treatment – expense or non-current asset) and expenses expensed (expenses incurred minus sums capitalized).

Total expenses incurred break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Total Expenditures	8,445	9,280
Grants and RTC	(2,033)	(3,433)
Total expenses incurred	**6,412**	**5,848**

The research and development expenses incurred fell 9% to €8.4 million in 2018 (vs. €9.3 million in 2017). This decline was due to the completion of work developing the new Aixplorer MACH 30 platform. The Group is nevertheless continuing its R&D effort, allocating a substantial portion of its revenue (34.3%).

The company obtains grants and tax credits (research tax credit, innovation tax credit, and job competitiveness tax credit), which reduce the cost of research and development. The research tax credit represents the virtual totality of tax credits obtained and is calculated on the basis of R&D-related expenditure.

Over the periods being compared, the RTC recognized by the Company amounted to €1.8 million for 2018 and €2.1 million for 2017.

The sums capitalized, mainly comprised of personnel costs, relate to the development of successive versions of the Aixplorer platform, as well as the new Aixplorer MACH platform. The portion capitalized as intangible assets amounted to €3.2 million in 2018 and €3.8 million in 2017.

R&D expenses (namely net expenses, after capitalization), break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
R&D expenses	3,550	3,054
Grants and RTC	(372)	(1,002)
Total R&D expenses expensed	**3,178**	**2,051**

9.2.1.6. SALES AND MARKETING EXPENSES

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Personnel	5,546	5,707
Fees, External Services	2,152	2,276
Travel expenses and entertainment	2,649	2,509
Depreciation, amortization & provisions	694	381
Others	643	860
Total	**11,685**	**11,732**

Selling and marketing expenses mainly include the following costs:

- Commercial roll-out (sales force);
- Marketing;
- They also include most of the overheads incurred by the sales subsidiaries.

Sales and marketing expenses were unchanged year-on-year.

9.2.1.7. GENERAL AND ADMINISTRATIVE EXPENSES

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Personnel	2,213	2,614
Fees, External Services	1,668	1,881
Travel expenses and entertainment	175	124
Depreciation, amortization & provisions	421	192
Others	(104)	289
Total	**4,374**	**5,099**

General and administrative expenses mainly include the following costs:

- Wages of senior management, Finance Department, Human Resources Department, IT Department and Quality Assurance & Regulatory Affairs Department;
- Audit, legal and consultancy fees, costs of regulatory affairs and quality assurance (obtaining certification for Group products);
- Insurance and rental costs (excluding those covered by the sales subsidiaries and accordingly presented under sales and marketing expenses).

General and administrative expenses fell sharply (-14%) to €4.4 million in 2018 from €5.1 million in 2017.

9.2.1.8. OPERATING EXPENSES

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Personnel	1,067	1,206
Fees, External Services	223	238
Travel expenses and entertainment	47	68
Depreciation, amortization & provisions	59	71
Others	101	208
Total	**1,497**	**1,791**

Operating expenses mainly include the following costs:

- Wages of the mass production, purchasing, logistics, sales administration, service and troubleshooting departments. The latter encompass production planning, inventory management, preparation and distribution of price lists, customer and distributor training as well as improvements in after-sales service processes.

Operating expenses fell sharply (-16%) to €1.5 million in 2018 from €1.8 million in 2017.

9.2.1.9. OTHER OPERATING EXPENSES AND OTHER OPERATING INCOME

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Customer provisions	(420)	(265)
Miscellaneous	-	(155)
Other operating expenses	**(420)**	**(420)**
Reversal of used customer provisions	-	-
Reversal of unused customer provisions	265	127
Foreign currency exchange gains	176	-
Miscellaneous	-	(1)
Other operating income	**441**	**126**
Other operating income and expenses	**21**	**(294)**

In 2018, provisions for bad debts (customer provisions) rose from €265,000 in 2017 to €420,000 in 2018. This increase in provisions was mainly due to the classification under bad debts of a client in the United Arab Emirates involving €295,000.
In parallel, there was a €265,000 reversal of provisions for bad debts in 2018, mainly due to the recovery of the bulk of the former claims of the U.S. subsidiary.

9.2.1.10. CURRENT AND NON-CURRENT OPERATING INCOME (LOSS)

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Current operating income (loss)	(9,615)	(9,880)
Other non-current operating income/(expense)	(1,674)	-
Operating income (loss)	(11,290)	(9,880)

At December 31, 2018, current operating income (loss) was up +€0.3 million to -€9.6 million (vs. -€9.9 million in 2017). The ratio of the loss to revenue was almost unchanged at -39.0% compared with -40.0% in 2017. This slight improvement was mainly due to cost control on the back of stable revenue.

Operating income (loss) was dragged down by an exceptional expense of €1.7 million pertaining to legal fees for the Verasonics dispute described in Note 38 to the consolidated financial statements presented below in Section 20.1.

9.2.1.11. EBITDA

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
EBITDA	(6,470)	(6,611)

Overall, EBITDA was up +2%, representing an improvement of +€0.1 million at -€6.5 million in 2018 from -€6.6 million in 2017.
The Group defines EBITDA as current operating income (loss) minus taxes, depreciation, amortization and provisions.

2018 EBITDA represents the current operating loss, namely -€9.6 million, before taxes of -€581,000 and depreciation, amortization and provisions of -€2.6 million. 2018 EBITDA thus totaled -€6.5 million.
2017 EBITDA represents the current operating loss, namely -€9.9 million, before taxes of -€724,000 and depreciation, amortization and provisions of -€2.5 million. 2017 EBITDA thus totaled -€6.6 million.

9.2.1.12. FINANCIAL INCOME (LOSS)

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Foreign currency exchange losses	-	(400)
Interest	(1,960)	(2,010)
Financial expenses	**(1,960)**	**(2,410)**
Foreign currency exchange gains	-	-
Interest	16	6
Financial income	**16**	**6**
Financial income (loss)	**(1,944)**	**(2,405)**

Financial income (loss) was up €0.5 million at -€1.9 million in 2018 compared with -€2.4 million in 2017.

This increase was due to:

- +€0.1 million reduction in interest including:
  - +€0.9 million mainly from the early repayment of the Norgine loan in first half 2017, which had no impact in 2018;
  - -€0.8 million mainly associated with the Kréos loan.
- +€0.4 million improvement in financial income (loss).

9.2.1.13. NET INCOME (LOSS)

After accounting for non-current operating items and financial income (loss), SuperSonic Imagine posted a net loss of -€13.3 million in 2018 (vs. -€12.2 million in 2017).

9.2.1.14. INCOME TAX

Given the losses recorded for the last two years, the Company has not recorded any income tax with the exception of a flat tax in China totaling €61,000 in 2018, versus €11,000 in 2017. It obtained a research tax credit, which is partly deducted from research and development expenses in the IFRS consolidated financial statements (see Section 9.2.1.5 above) and partly deducted from non-current operating expenses.

At December 31, 2018, unrecognized deferred tax assets amounted to €50.137 million, versus €48.973 million at December 31, 2017, mainly due to French and U.S. tax losses that have not been capitalized.

9.2.1.15. NET INCOME (LOSS) AND NET EARNINGS (LOSS) PER SHARE

The consolidated net loss totaled €13.294 million in 2018, compared with €12.247 million in 2017. In the absence of non-controlling interests, the net loss attributable to the equity holders of the parent company is equal to the net loss.
The net loss per share issued (weighted average number of shares outstanding) was € 0.57 in 2018 and € 0.61 in 2017.

9.3. BALANCE SHEET ANALYSIS

The balance sheet total at December 31, 2018 was €51.3 million compared to €56.1 million at December 31, 2017.
Assets

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Total non-current assets	21,716	19,035
Total current assets	29,562	37,148
Of which cash and cash equivalents	*8,593*	*19,017*
Total assets	**51,278**	**56,183**

Liabilities

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Total shareholders' equity	12,562	25,591
Total non-current liabilities	16,731	12,682
Total current liabilities	21,985	17,910
Total liabilities and shareholders' equity	**51,278**	**56,183**

9.3.1. Non-current assets

Net non-current assets break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Intangible assets	16,049	14,158
Property, plant and equipment	4,865	4,443
Rights to use property, plant and equipment under leases	387	-
Other non-current assets	415	434
Total non-current assets	21,716	19,035

The increase in non-current assets was mainly attributable to the increase in intangible assets driven by the development costs capitalized for 2018 totaling €3.2 million.

The €0.4 million in rights to use property, plant and equipment corresponded to the adjustments made following the introduction of IFRS 16 Leases, adopted early as from January 1, 2018.

9.3.2. Current assets

Net current assets break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Inventories	6,664	5,037
Trade receivables	10,176	8,680
Other current assets	4,129	4,414
Cash and cash equivalents	8,593	19,017
Total current assets	**29,562**	**37,148**

The changes in the main items can be analyzed as follows:

- Inventories:

Inventories rose €1.6 million year-on-year.
2018 was completely atypical due to the introduction of a new platform. This in effect required:

- Creation of spare parts inventory for the Aixplorer MACH30 on top of the Aixplorer spare parts inventory;
- The temporary overstocking at the end of the year was due to the transition between the two platforms;
- Increase in the number of demonstration systems because both produced in parallel.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Raw materials & spare parts	4,409	3,257
WIP and finished goods	2,896	1,864
Demonstration equipment	1,723	1,483
Total gross inventories	**9,028**	**6,604**
Inventory impairment	(2,364)	(1,567)
Total Net Inventories	**6,664**	**5,037**

- Trade receivables:

Trade receivables rose €1.4 million year-on-year.
In 2018, the proportion of revenue from China rose due to the impact of the transition between the two platforms in other regions. Given that payment terms are longer than average in China, the Group's average payment term automatically increased.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Trade receivables	12,082	10,419
Provisions for bad debt	(1,906)	(1,740)
Trade receivables, net	**10,176**	**8,680**

- Other current assets:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Research tax credit receivable	2,407	2,212
VAT receivable	852	739
Prepaid expenses	208	274
Prepayments	646	738
Operating grants receivable – current portion	0	452
Other receivables	16	0
Total other current assets	**4,129**	**4,414**

The main change was due to the receipt of operating grants in 2018.

- Cash and cash equivalents

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Cash on hand	8,585	19,009
Marketable securities	8	8
Cash and cash equivalents	**8,593**	**19,017**

Cash held at banks is principally held in euros, along with €346,000 in the U.S. subsidiary and €322,000 in the Chinese subsidiary.

Available cash stood at €8.6 million at December 31, 2018 (vs. €19.0 million at December 31, 2017), representing a net cash burn of €10.4 million, which breaks down as follows:

- -€10.0 million in cash used in operating activities in 2018 (vs. -€4.6 million in 2017). This change in cash burn totaled €5.4 million and was mainly due to the reduction in net earnings for €1.0 million and WCR for €4.5 million.
- -€4.6 million in cash used in investing activities in 2018 (vs. -€8.0 million in 2017); the lower cash burn totaled €3.4 million and was due to less investment in R&D and reduced acquisitions of property, plant and equipment.
- +€4.2 million in cash relating to financing activities in 2018 (vs. +€18.9 million in 2017). It should be recalled that €11.5 million had been raised in June 2017.
- No impact from exchange rate fluctuations on cash (vs. -€0.5 million in 2017).

A detailed net cash flow analysis is presented in Section 10.2 below.

9.3.3. Shareholders' equity

Shareholders' equity stood at €12.6 million at December 31, 2018, compared to €25.6 million the previous year. This €13 million reduction was mainly due to losses for the period (€13.3 million). The breakdown of the change in consolidated shareholders' equity is presented in the statement in the consolidated financial statements presented in Section 20.1 of this Registration Document.

9.3.4. Non-current liabilities

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Financial debt – Long-term portion	15,043	11,294
Retirement obligations	529	481
Provisions and other non-current liabilities	1,081	907
Non-current lease liabilities	78	-
Total non-current	**16,731**	**12,682**

Non-current liabilities break down as follows:

- **Financial debt – Long-term portion, up €3.7 million on 2017 and which** at December 31, 2018 comprised the long-term portion of the €9.8 million bond issue, the non-current portion of Bpifrance repayable advances totaling €1.5 million, as well as a long-term €3.7 million loan arranged with Bpifrance;
- **Retirement obligations** were unchanged year-on-year, totaling €0.5 million at December 31, 2018;
- **Provisions and other non-current liabilities** were up €0.1 million at December 31, 2018 compared to 2017 and were comprised of €532,000 in discounted future payments for fixed minimum royalties on acquired patents and licenses and €549,000 in deferred income from maintenance agreements;
- **Non-current lease liabilities** stood at €78,000 following the adjustments made in light of the introduction of IFRS 16 Leases as from January 1, 2018.

9.3.5. Current liabilities

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Financial debt – Short-term portion	9,832	7,034
Trade payables and related accounts	6,170	5,226
Provisions and other current liabilities	5,617	5,650
Current lease liabilities	366	-
Total current liabilities	**21,985**	**17,910**

Current liabilities break down as follows:

- **Financial debt – Short-term portion**, primarily comprised of an RTC pre-financing facility and a trade receivables factoring facility for €5.1 million and the short-term portion of the bonds for €4.6 million.
- **Trade payables and related accounts** were up €0.9 million (+18%);
- **Provisions and other current liabilities** were unchanged and break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Social security costs	2,748	2,966
Deferred revenue – current portion	1,381	868
Provisions for other current liabilities	586	685
Tax debt	647	810
Advances received on orders	205	307
Miscellaneous	50	14
Total other current liabilities	**5,617**	**650**

  - **Social security liabilities** were down €218,000 (-7.4%), mainly due to the slightly lower payroll;

- **Deferred revenue** was up €513,000 year-on-year, mainly due to the growth of sales of service contracts;
- **Provisions for other current liabilities** are linked to the provision for warranty on equipment sold;
- **Tax debts** were down €90,000 and mainly involved Chinese tax;
- **Advances received on orders** totaled €0.2 million at December 31, 2018.

- **Current lease liabilities** stood at €366,000, following the adjustments made in light of the introduction of IFRS 16 Leases as from January 1, 2018.

9.4. SUMMARY OF THE CORPORATE FINANCIAL STATEMENTS OF SUPERSONIC IMAGINE S.A.

For the year ended December 31, 2018:

- Revenue excluding sales tax amounted to €23.352 million, compared to €23.835 million in 2017;
- Total operating income amounted to €31.422 million, compared to €31.483 million the previous year;
- Operating expenses for the fiscal year amounted to €43.285 million, compared to €41.597 million the previous year;
- The operating loss amounted to €11.862 million, compared to a loss of €10.115 million the previous year;
- Wages and emoluments totaled €7.326 million, compared to €7.402 million the previous year;
- Payroll taxes totaled €3.009 million, compared to €2.997 million the previous year;
- Depreciation and amortization amounted to €2.677 million, compared to €2.715 million the previous year;

The salaried workforce at December 31, 2018 was 117, versus 109 the previous year.

Given a financial loss of €4.048 million primarily related to the impairment of receivables from its subsidiaries, current income amounted to €15.910 million, compared to a loss of €12.782 million the previous year.

In light of the above, exceptional income of -€43,000, an income tax credit of €2.356 million, which mostly represents the amount of the research tax credit, and the tax for the Chinese representative office, there was a loss of €13.597 million for the fiscal year, compared to a loss of €10.192 million the previous year.

10. CASH AND CAPITAL RESOURCES

10.1. INFORMATION ON CAPITAL RESOURCES, CASH AND EQUIVALENTS, AND GROUP FINANCING SOURCES

Note 16 to the consolidated financial statements, and the table showing changes in shareholders' equity reported in accordance with IFRS standards and appearing in Section 20.1 of this document, respectively set forth changes in the Company's share capital and in the Group's shareholders' equity.

At December 31, 2018, Group shareholders' equity amounted to €12.562 million, versus €25.591 million at the end of 2017.

10.1.1. Information on cash and cash equivalents balances

At December 31, 2018, the total amount of cash and cash equivalents held by the Group totaled €8.593 million, compared to €19.017 million at the end of 2017.

Cash and cash equivalents include cash. This cash mainly consists of funds raised when listed, grants and repayable advances, a new €6 million loan arranged with Kreos in December 2018 in addition to the €12 million loan arranged with Kreos in 2017. This cash is used to finance the Group's operations.

At December 31, 2018, financial debt consisted of:

- Debts related to repayable advances granted by Bpifrance;
- Bonds with equity warrants issued in March 2017 in the case of the first tranche, December 2017 for the second and December 2018 for the third;
- Two long-term innovation loans arranged with Bpi France, with €1.8 million received in 2017 and €2 million received in 2018;
- Short-term borrowings comprising the 2018 RTC pre-financing by means of the assignment of receivables (subject to the provisions of Articles L214-169 to L214-175 of the French Monetary and Financial Code);
- A trade receivables factoring agreement put in place in December 2016.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Cash in banks	8,585	19,009
Marketable securities	8	8
Total	**8,593**	**19,017**
Current financial liabilities	9,832	7,034
Financial debt – current (A)	**9,832**	**7,034**
Non-current financial liabilities	15,043	11,294
Financial debt – Non-current (B)	**15,043**	**11,294**
Financial debt (A)+(B)	**24,875**	**18,329**
Net financial debt	**16,282**	**(689)**

10.1.2. Information on the Group's financing sources

SuperSonic Imagine is a growing company engaged in the medical device sector, with a product range that includes innovations for the most part. The innovation policy adopted by the Company has resulted in negative operating cash flow since its creation.

The Company has used several financing sources to support its growth, primarily:

- Share issues, especially during the initial public offering and three bond issues for historical shareholders that were then converted into shares;
- A bond with equity warrants;
- Two long-term innovation loans arranged with Bpifrance; Research Tax Credit;
- Bpifrance repayable aid;
- Other public financing in the form of grants and premiums;
- Short-term financing.

The table below shows, by type and year, all funding obtained at December 31 of each year by the Company since its inception.

In thousands of euros	Share capital increase	Research tax credit received	Repayable aid	Grants, bonuses	Bonds with equity warrants	Short-term debt	Total per year	Cumulative total
2005	337	0	44	1,000	-	-	**1,381**	**1,381**
2006	5,000	148	-	197	-	-	**5,345**	**6,726**
2007	5,000	993	28	38	-	-	**6,059**	**12,785**
2008	13,302	1,269	507	342	-	-	**15,420**	**28,205**
2009	13,271	1,603	500	1,179	-	-	**16,553**	**44,758**
2010	23,041	1,537	516	1,178	-	-	**26,272**	**71,030**
2011	9,917	1,599	-	244	-	-	**11,760**	**82,790**
2012	1,583	1,680	424	1,314	-	-	**5,001**	**87,791**
2013	14,391	1,045	-	133	5,000	-	**20,569**	**108,360**
2014	54,817	-	-	340	-	3,000	**58,157**	**166,516**
2015	97	3,585	242	275	-	5,615	**9,814**	**176,330**
2016	5	2,128	27	264	-	2,153	**4,577**	**180,907**
2017	11,507	2,262	61	279	12,000	5,860	**31,969**	**212,876**
2018	31	2,077	274	624	6,000	5,215	**14,221**	**227,097**
Total	**152,299**	**19,846**	**2623**	**7,407**	**23,000**	**21,843**		**227,097**

10.1.2.1. EQUITY FINANCING

At December 31, 2018, the Company had received a total of €141.476 million (before transaction costs recorded as a deduction from share issuance premiums) through capital increases carried out

since its establishment in 2005 to the current time. These successive fundings are detailed in the table below.

Date	Nature of operations	Share class	Gross amount raised (in €K)	Number of shares	Par value per share
Total equity financing at December 31, 2016			**140,761**	**16,271,481**	
6/30/2017	Exercise of stock options	Ordinary	-	3,250	0.10
6/30/2017	Share capital increase	Ordinary	693	6,931,829	0.10
12/31/2017	Exercise of founders' warrants (BSPCE)	Ordinary	-	-	0.10
12/31/2017	Exercise of warrants	Ordinary	-	-	0.10
12/31/2017	Exercise of stock options	Ordinary	-	2,567	0.10
Total equity financing at December 31, 2017			**141,455**	**23,209,127**	
04/03/2018	Delivery Q1 free share plan	Ordinary	21	207,500	0.10
Total equity financing at December 31, 2018			**141,476**	**23,416,627**	

Details of subscriptions during the two fiscal years can be found in Section 20.1 in Note 16.

10.1.2.2. FINANCING BY BOND ISSUE

In March 2017, the Company issued bonds with a nominal value of €12 million in two tranches bearing interest at an annual rate of 10.75%. Over a period of 42 months, it is repayable in constant and equal installments from the disbursement of the tranches. The detailed repayment conditions can be found in Note 18.2 to the consolidated financial statements prepared under IFRS for the 2018 fiscal year. The first €6.0 million tranche was subscribed on March 13, 2017 and the second on December 22, 2017 for the same amount.
In December 2018, the Company issued a new bond to Kreos for a total of €12 million, comprising two tranches of €6 million each. The first tranche (Tranche 3) was subscribed following the December 13, 2018 meeting of the Board of Directors. The second tranche (Tranche 4) will be realizable by September 30, 2019 subject to certain conditions. The loan was agreed for a period of 42 months at an annual interest rate of 10.75%.
Details of the bonds can be found in Section 20.1 in Note 18.2.

10.1.2.3. FINANCING THROUGH THE RESEARCH TAX CREDIT

The Company benefits from the provisions of Articles 244 quater B and 49 septies F of the French General Tax Code (CGI) pertaining to the Research Tax Credit.

During the period presented, the change in the Research Tax Credit receivable amounting to €2.323 million at December 31, 2018, was as follows:

B/S receivable as at Dec. 31, 2016	2,408
+ 2017 RTC recorded over the period	2,077
+ Tax Credit for Competitiveness and Employment (TCCE) recorded over the period	123
+ Family Tax Credit	12
- 2016 RTC payment received	(2,182)
- 2016 ITC payment received	(80)
- 2016 TCCE payment received	(106)
- Cancellation 2012 Export Tax Credits	(40)
B/S receivable as at Dec. 31, 2017	**2,212**
+ 2018 RTC recorded over the period	2,323
+ Tax Credit for Competitiveness and Employment (TCCE) recorded over the period	113
+ Family Tax Credit	
- 2017 RTC payment received	(2,108)
- 2017 Family Tax Credit payment received	(12)
- 2017 TCCE payment received	(120)
B/S receivable as at Dec. 31, 2018	**2,407**

From its inception to the end of 2018, the Group obtained a total Research Tax Credit refund of €19.846 million (see detailed table in Section 10.1.2 above).
The cumulative total (including the 2018 receivable) thus amounts to €22.169 million.

10.1.2.4. FINANCING THROUGH REPAYABLE ADVANCES

The consolidated financial debt at December 31, 2018 includes repayable advances from Bpifrance, the IMPULSE incubator and Business France.

The Company currently benefits from the following six repayable advances:

Completed projects:

- 1st repayable advance received from the IMPULSE incubator;
- 2nd repayable advance from Bpifrance (HIFU-Brain Therapy project);
- 3rd repayable advance from Bpifrance (Prostate).

Project ongoing

- **4th grant** from Bpifrance **(Portion relating to the collaborative project – TUCE):** on December 4, 2008, the Group was granted a financial package by Bpifrance that included both a repayable advance and a grant. This collaborative project carried out in partnership with Theraclion, entitled TUCE (Thérapie Ultrasonore Contrôlée par Elastographie/ Ultrasound Therapy Controlled by Elastography), has the goal of developing a medical device that will allow the non-invasive ablation of the parathyroid glands by combining innovative imaging, monitoring of the temperature of the tissues, and ablation by High Intensity Focused Ultrasound (HIFU). Of the total €8.522 million in grants awarded, the share attributable to the Company totaled €1.615 million, of which €1.208 million in subsidies and €407,000 in repayable advances.

In accordance with an amendment dated December 20, 2010, the start date for the R&D work was moved from June 30 to December 31, 2009, thus pushing back the end date of the 60-month program to December 31, 2014.

In accordance with a second amendment dated November 30, 2012, the project duration was increased from 60 to 84 months to take into account the development of an OEM system based on the new platform, thereby postponing the program end date to December 31, 2016.

As for the portion pertaining to the repayable advance granted to the Company, the drawdown schedule specified in the new agreement was as follows:

- €77,200 at the completion of Key Stage 2 as defined in the agreement, i.e., December 31, 2011;
- €0 at the completion of Key Stage 3 as defined in the agreement, i.e., December 31, 2012;
- €51,000 at the completion of Key Stage 4 as defined in the agreement, i.e., December 31, 2013;
- €191,000 at the completion of Key Stage 5 as defined in the agreement, i.e., December 31, 2014;
- €27,000 at the completion of Key Stage 6 as defined in the agreement, i.e., December 31, 2015;
- The balance of €60,900 at the end of the program, on December 31, 2016.

On June 26, 2012, the Company received the first installment of €77,000, €242,000 on July 1, 2015, €27,000 on June 13, 2016 and €61,000 on July 5, 2017. Repayments will be based on future sales of products resulting from the project, such as Aixplorer® prototypes whose size enables integration into another device (focused ultrasound therapy cameras, for example), i.e., 2.5% of revenue once €1.5 million has been achieved and will be spread over a period of eight consecutive years at most. Because the project was scheduled to end in 2016 but was pushed back to 2017, no repayment should be made before that date. Repayments may therefore exceed the nominal amount deposited, but in the absence of reliable estimates of the amounts to be repaid, no additional amount was recorded. This will also depend on the success rate of the project at the end of the program.

- **5th grant** from Bpifrance **(ICARE Project):** On May 6, 2009, Bpifrance granted the Company a financing package including both a repayable advance (loan) and a grant. The ICARE project is a collaborative program, carried out in partnership with the company Vermon, which relates to the development of an ultra-rapid echocardiogram capable of imaging the heart in three dimensions and offering quantitative analysis of heart mechanics.
- The project obtained grants of €7.296 million, including €5.876 million attributable to the Company and broken down into a total of €2.837 million in subsidies and €3.038 million in repayable advances.

The project is expected to take about 60 months. Project launch was postponed from September 15, 2009 to May 15, 2010.

Regarding the repayable grant provided to the Company, the drawdown schedule originally specified in the agreement is as follows, it being stipulated that it was subject to the prior contribution of €13.270 million in equity:

- €515,000 upon signing;
- €734,000 at the completion of Key Stage 1, as defined in the agreement, i.e., August 15, 2011;
- €1,078,000 at the completion of Key Stage 2 as defined in the agreement, i.e., June 15, 2012;
- €255,000 at the completion of Key Stage 3 as defined in the agreement, i.e., June 15, 2013;
- The balance, €456,000, at the completion of the program, i.e., September 15, 2014.

At December 31, 2014, the Company had received the sum of €863,000 (the first payment of €515,000 mentioned above was received in 2010 and €347,000 in 2012). The €347,000 represents only a portion of the Step 1 amount stipulated initially in the contract (€734,000) because since this is a collaborative program with a partner that does not always share the same priorities, the project was delayed. An additional €274,000 advance was received in 2018.

The initial contract stipulated that the advance will be repaid according to the future sales of products from the project, up to the fiscal year ending in 2022. Repayments may therefore exceed the nominal amount received.
In the 2017 fiscal year, the Company had reached an agreement with Bpifrance, which is funding this program, in particular regarding the revenue base to be considered for future payments, since part of the initial objectives have not been achieved.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet for the interest portion.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet at 25% of the repayable advance received.

- **6th grant from Business France:**

A repayable advance under the "Export+ santé Cosmétique" program covering up to 50% of the total amount of filing and certification costs with €200,000 being awarded. This program is meant to support corporate growth. A €15,000 advance was paid on December 21, 2016.
The repayments plus a 7.5% surcharge will be made if within 18 months to 3 years from certification, revenue from the products and countries in question is equal to or more than double the amount of expenses the advance helped finance.

Repayable advances at December 31, 2018 are summarized as follows:

Repayable aid	BPI	BPI	Business	TOTAL
In thousands of euros	ICARE	TUCE	France	
Debt as at December 31, 2016	**733**	**346**	**15**	**1,094**
+ payments received	-	61	-	61
- repayments	-	-	-	-
- discounting	-	-	-	-
+ interest provision	267	-	-	267
+ accretion	25	-	-	25
- Cancellation of the debt	-	-	-	-
+/- change in assumption	-	-	-	-
Debt as at December 31, 2017	**1,026**	**407**	**15**	**1,448**
+ payments received	274	-	-	274
- repayments	-	-	-	-
- discounting	-	-	-	-
+ interest provision	-	-	-	-
+ accretion	38	-	-	38
- Cancellation of the debt	-	-	-	-
+/- change in assumption	-	-	-	-
Debt as at December 31, 2018	**1,377**	**407**	**15**	**1,759**

With regard to their respective characteristics, these advances were restated in the consolidated financial statements in accordance with IFRS and presented at their fair value (see Note 18.1 to the consolidated financial statements prepared in accordance with IFRS and inserted in Section 20.1 of this document).

10.1.2.5. OTHER PUBLIC GRANTS

Since its creation, the Company has also benefited from many grants in connection with its development projects, whether or not collaborative in nature, particularly from the national research agency (ANR), and a government grant for territorial development (Prime d'Aménagement du Territoire); the amounts drawn down from these sources are summarized below:

In thousands of euros	Grants received				Amount of grant on contract	Balance receivable
	Before 2017	2017	2018	Cumulative total		
ICARE – OSEO	1,775		354	2,129	2,838	709*
DARMUS – DGA	645			645	645	
CARDIO – ANR	215			215	215	
TUCCIRM – ANR	126			126	126	
Elastobus – OSEO	454			454	454	
TUCE – OSEO	1,027	181		1,208	1,208	
Micro Elasto – ANR	181			181	186	4
PLIK – OSEO	54			54	133	79
PLIK – Pays d'Aix	25			25	80	55
PLIK – PACA					80	80
BITHUM – ANR	94	18		112	118	6
IDITOP – OSEO	268		67	335	335	
IDITOP – PACA	219		31	250	250	0
Cartographics – INCA INSERM Capacity – BPI	133			133	133	
SOLUS	197		147	344	408	64
Ultra Fast 4D-ANR	92			92	306	214
RHU STOP AS		80	25	105	203	98
Total	**5,505**	**279**	**624**	**6,407**	**7,716**	**1,309**

** Icare grant: see Section 39.3 in the notes to the consolidated financial statements, the outstanding amount of the grant will likely never be obtained.*

At December 31, 2018, the Group had received a total of €7.407 million, €6.407 million in grants detailed above and €1.0 million in various bonuses.

10.1.2.6. OTHER SHORT-TERM FINANCING

At December 31, 2018, the Group had recourse to the assignment of receivables (subject to the provisions of Articles L214-169 to L214-175 of the French Monetary and Financial Code) to pre-finance the Research Tax Credit for the past year.
This made it possible to pre-finance 67% of the amount of the 2018 Research Tax Credit at December 31, 2018, representing €1.6 million.

In 2017, the company signed a trade receivables factoring agreement.
At December 31, 2018, the outstanding amount presented under financial debts stood at €3.2 million.

10.1.2.7. OTHER LONG-TERM FINANCING

A 7-year €2 million innovation loan was obtained from BPI in December 2018.
A 7-year €1.8 million loan had been obtained from BPI in 2017.

10.1.3. Off balance sheet commitments

Off-balance sheet commitments are detailed in Note 36 to the 2018 consolidated financial statements prepared under IFRS presented in Section 20.1 of this document.

10.2. CASH FLOWS

For the period presented, changes in cash by type of cash flows were as follows.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Net cash flows provided from/(used in) operating activities	(10,023)	(4,629)
Net cash flows provided from/(used in) investing activities	(4,581)	(7,979)
Net cash flows provided from/(used in) financing activities	4,217	18,853
Changes in net cash flow	**(10,387)**	**6,244**
Cash opening balance	19,017	11,250
Reclassification of non-current assets as Cash	-	2,000
Impact of foreign exchange on cash	(38)	(477)
Cash closing balance	**8,593**	**19,017**

10.2.1. Cash flow related to operating activities

Cash consumption related to operating activities for the fiscal years ended December 31, 2018 and 2017 amounted respectively to €10.023 million and €4.629 million.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Net income (loss)	**(13,294)**	**(12,247)**
Elimination of items with no impact on cash		
Amortization and depreciations of assets	3,170	2,556
Changes in the provisions for contingencies	(15)	186
(Income)/Expenses linked to share-based payments	224	321
Interest (income)/expenses, net	1,960	2,004
Gain or loss on disposal of assets	-	183
Income tax expense	61	(38)
Cash flows provided from/(used in) operating activities, before change in WCR	**(7,894)**	**(7,034)**
Inventories	(1,627)	45
Trade receivables	(1,495)	291
Other receivables	94	(52)
Research tax credit and operating grants	(159)	(550)
Suppliers and other liabilities	1,058	2,627
Taxes on paid income	-	44
Net cash flow linked to operating activities	**(10,023)**	**(4,629)**

Cash flow from operations (CFO) (net consumption of cash from operating activities before changes in the working capital requirement) for the fiscal years ended December 31, 2018 and 2017 amounted to -€7.894 million and -€7.034 million respectively.

This year-on-year change of circa -€860,000 in CFO was mainly due to the fall in net earnings (-€1 million).

The € 2.1 million change in working capital requirements was due to:

- + €1.6 million increase in inventories.

2018 was completely atypical due to the introduction of a new platform. This in effect required :

  - Creation of spare parts inventory for the Aixplorer MACH30 on top of the Aixplorer spare parts inventory;
  - The temporary overstocking at the end of the year was due to the transition between the two platforms;
  - Increase in the number of demonstration systems because both produced in parallel.

- +€1.5 million increase in trade receivables.
- In 2018, the proportion of revenue from China rose due to the impact of the transition between the two platforms in other regions. Given that payment terms are longer than average in China, the Group's average payment term automatically increased.
- - €1.1 million with the increase in trade payables and related accounts

10.2.2. Cash flows from investing activities

Cash consumption related to investing activities for the fiscal years ended December 31, 2018 and 2017 fell by nearly €3.4 million and totaled €4.581 million and €7.979 million respectively.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Acquisitions of property, plant and equipment	(947)	(3,717)
Acquisitions and production of intangible assets	(5,730)	(6,391)
Receipt of research tax credit allocated to capitalized R&D expenses	2,077	2,182
Receipt / disbursement of financial assets	19	(53)
Income from interest received and capital gain on disposals of cash instruments	-	-
Net cash flows related to investment operations	**(4,581)**	**(7,979)**

The main changes related to investment in R&D. In 2018, there was a reduction in R&D investment following the completion of the development of the new Aixplorer MACH platform both in property, plant and equipment and intangible assets:

Property, plant and equipment break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Equipment	865	3,657
Office and IT equipment	72	46
Others	10	14
Total acquisitions of property, plant and equipment	**947**	**3,717**

The equipment is primarily related to R&D equipment and mass production equipment.

The intangible assets break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Capitalized R&D expenses	4,895	6,228
Licenses and patents	126	108
Other (software, etc.)	709	55
Total acquisitions of intangible assets	**5,730**	**6,391**

The "Capitalized R&D expenses" line shows the expenses incurred during the fiscal year that satisfy the criteria for capitalization.

10.2.3. Cash flows from financing activities

Net cash flow from financing activities totaled €4.217 million in 2018 and €18.853 million in 2017.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Profit from transactions on share capital	31	11,507
Expenses related to capital increases	28	(786)
Payments with respect to rental liabilities	(394)	-
New financial debt	11,125	17,437
Repayment of financial debt	(5,046)	(7,679)
Interest disbursed	(1,496)	(1,597)
Acquisitions of treasury shares	(31)	(30)
Net cash flows related to financing operations	**4,217**	**18,853**

The major components of net cash flows from financing activities are the Group's short and long-term financing policy:

In 2017, the company used the following forms of financing:

- A €12 million loan arranged with Kreos, consisting of two €6 million tranches of bonds with warrants (OBSA). The first €6 million tranche was subscribed following the Management Board meeting of March 13, 2017. The second €6 million tranche was subscribed following the Management Board meeting of December 22, 2017.
- €11.5 million capital increase with preferential subscription rights in June 2017.
- Pre-financing of 91% of the 2017 RTC totaling €1.7 million.
- Trade receivables factoring agreement totaling €1.7 million at December 31, 2017.
- Arranging of a new long-term innovation loan with Bpifrance in 2017 for €1.8 million.
- €1.6 million in interest paid out, representing the financial expenses on the redemption of the convertible bonds subscribed in December 2013 as well as the subscription of a new bond issue in March 2017 for the first tranche and December 2017 for the second.

In 2018, the company used the following forms of financing:

- Subscription by Kreos for a new €12 million bond comprising two €6 million tranches. The first tranche (Tranche 3) was subscribed following the December 13, 2018 meeting of the Board of Directors. The second tranche (Tranche 4) will be realizable by September 30, 2019 subject to certain conditions.
- Pre-financing of 67% of the 2018 RTC totaling €1.6 million.
- Trade receivables factoring agreement totaling €3.2 million at December 31, 2018.
- Arranging of a new long-term innovation loan with Bpifrance in 2018 for €2 million.

- €1.5 million in interest paid out, representing mainly the financial expenses associated with the issuance of new bonds in March 2017 for the first tranche, December 2017 for the second and December 2018 for the third.

10.3. INFORMATION ON THE TERMS FOR REPAYABLE ADVANCES AND THE FINANCING STRUCTURE

A breakdown of this information is presented in Section 10.1.2 above.

10.4. RESTRICTION ON USES OF CAPITAL RESOURCES

Pledge of marketable securities
€51,000 in investment securities that were pledged to BNP Paribas Real Estate as security for rent on the premises in Aix-en-Provence, renegotiated in 2016. This guarantee was given for a period of nine years and will end on September 30, 2024.

Pledging of bank accounts, receivables, inventories and intellectual property.
In order to guarantee all of the Company's obligations under the Venture Loan, it provided a number of securities in the event of default: pledge of bank accounts, pledge of certain receivables, non-possessory pledge of inventory and pledge of certain intellectual property rights (patents and trademarks).

10.5. SOURCES OF FINANCING REQUIRED IN THE FUTURE

The available cash at December 31, 2018 was €8.6 million compared to €19.0 million at December 31, 2017.

The Company is now in a position to pre-finance its RTC annually and factor its trade receivables for up to €5 million.

The Group considers that it needs further funding sources to be able to cover all operating activities and investments planned for the 12 months following the 2018 reporting date.

To have the necessary financial resources and underpin its development and growth, the company is currently negotiating with various financial partners regarding possible further new funding options. It has, for example, the option of issuing a €6 million Kreos Tranche 4 by September 2019 (signed in December 2018 and subject to certain conditions).

In the future, the Group will continue to have financing needs for the development of its technologies and the marketing of its products.

11. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES, TRADEMARKS AND DOMAIN NAMES

11.1. INNOVATION POLICY

11.1.1. General

In 2018, SuperSonic Imagine brought to market a new generation of ultrasound scanner, the Aixplorer® MACH 30, with a brand new modular architecture and design incorporating several technological innovations (see Section 6.3.3 above).

The Company's research and development strategy covers not only these technological innovations (software architecture for conventional and innovative imaging modes), but also clinical investigations, which demonstrate the advantages of these innovations in addressing specific issues relating to diagnosis, screening and therapeutic follow-up, and thus broadening the role of imaging in medicine. This clinical innovation strategy is a strong and very effective differentiator in a market historically shared by four major imaging players (GE, Philips, Siemens and Toshiba). It also allows it to target specific medical specialty markets, which are gradually starting to use imaging (such as cardiology, hepatology, urology and endocrinology).

From 2005 to 2016, a large proportion of the Company's resources was dedicated to the development of Aixplorer®. In 2017, the Company decided to upgrade its technology platform, involving a major investment. This investment materialized in 2018 with the launch of the new flagship product, the Aixplorer MACH 30, designed to replace the Aixplorer. For 2018 alone, the total gross expenditure on research and development eligible for the Research Tax Credit amounted to €7.2 million and the net amount of grants received was €624,000 (see Section 10.1.2 above). Some of these research and development activities were conducted through collaborative projects with public research laboratories (particularly the Langevin Institute, CNRS and Inserm), independent laboratories, university hospital centers, higher education and research establishments and private companies, for which the Company received allowances, grants and repayable advances (Bpifrance, formerly OSEO, ANR). These collaborative projects dovetail with the Company's technological development strategy since they enable it to conduct feasibility studies which, if positive, may lead to the innovation being integrated into the Aixplorer MACH® product family.

On November 22, 2017, Verasonics Inc. filed a lawsuit with the U.S. District Court for the Western District of Washington in which it alleged that SuperSonic Imagine had infringed three of its U.S. patents and supposed trade secrets.

SuperSonic Imagine rejects these claims and will vigorously defend itself.

SuperSonic Imagine is investing considerably in its defense in the ongoing proceedings, and intends to challenge the validity and legitimacy of the asserted intellectual property. An opposition action against a patent held by Verasonics is pending before the European Patent Office.

11.1.2. A legal framework of innovation within the company

SuperSonic Imagine attaches great importance to its technology development strategy; this can be seen, with regards to the inventions realized by its employees, by the Company's attention to (i) ensure that the rights to these inventions are strengthened and (ii) motivate its employees to produce inventions. This approach is characteristic of the particular attention paid by the Company to the development and protection of its innovation.

Strengthen the Company's rights with respect to the inventions realized by its employees

The Company's standard work contract specifies, particularly for each employee assigned to research and development activities, the nature of the inventive missions that are entrusted to them. The inventions produced by Company employees in the exercise of their duties, generally covering research and/or development activities, are therefore for the most part classified as "mission inventions", with the resulting automatic assignment of ownership of the invention to the Company (Article L. 611-7 of the French Intellectual Property Code). The employment contract also recalls the legal principles of devolution to the employer of the industrial property rights to the inventions realized by its employees. This is intended to prevent potential conflicts between the Company and the employee inventor as to the ownership of inventions that may be produced and to make the employee aware of the strategic importance that the Company attaches to inventions created in-house.

A non-disclosure clause in the model employment contract adopted by the Company is also designed to prevent the employee from disclosing the invention, which would make it impossible for the invention to be subsequently protected by a patent application or classified as a trade secret of the Company.
Finally, a non-compete clause limits the risk of improper use of the Company's expertise in the event of the employee leaving the Group.

11.2. PATENTS AND PATENT APPLICATIONS

11.2.1. Intellectual property policy – Status of the portfolio

The field of ultrasound imaging traditionally generates extremely rich intellectual property from all global players. SuperSonic Imagine® has set up a process (INNO process) for intellectual property management within its quality system. This is designed to protect the innovations resulting from its research work, for the parts integrated or likely to be integrated into its product range.

In order to maintain its competitive advantage in the medical imaging industry, the Company's intellectual property policy is both meant to ensure the protection of its products and to fight against the emergence of alternative products incorporating one or more of the innovations developed by the Company. The Company is also considering licensing some of these technologies protected by intellectual property rights in related fields or in specific geographic areas.

Accordingly, the Company regularly files new patent applications. These applications and the resulting patents are intended to protect inventions covering improved versions of existing products and modes or new, more disruptive products or modes.
The Company's current intellectual property portfolio includes:

- 29 patent families (which it either owns, co-owns or holds under exclusive licensing agreements), including 24 imaging patents, listed below, and 5 therapy patents;
- 4 licensing agreements described in Section 22.1.

With respect to the Company's current stage of development, all of these intellectual property titles do not have the same strategic importance today.

It is worth distinguishing, among these patent families, those covering innovations currently incorporated into the Aixplorer® MACH 30 from those covering current research into future applications that may eventually, as the case may be, be incorporated into the Aixplorer® MACH 30. These families are also likely to be integrated into competitors' products.

11.2.2. Patents/patent applications

These relate to families covering the following imaging innovations:

- **EP 2249708 family**: a device that allows simultaneous display on the main screen and on an additional screen in order to facilitate use of the ultrasound imaging system, which is owned by the Company;
- **EP 2160597 family**: a method providing imaging of all the viscoelastic properties of an area (elasticity and viscosity), which is owned by the Company;
- **EP 2101191 family**: a synthetic and ultrafast method of image formation based on plane waves and applicable to all ultrasonic wave imagery modes (B, Doppler, SWE, contrast), which is owned by the Company;
- **EP 1546757 family**: shear wave elastography method using a supersonic push (ultrasonic wind generation in the tissue using ultrasonic radiation pressure) to generate the radiation force and the plane waves ultrafast imagery to obtain a film of the displacement of the wave, which is owned by the Company;
- **EP 2790584 family**: ultrasound acquisition and processing device based on a GPU cluster, which is owned by the Company;
- **WO 2017/098298 family**: imaging method employing shear waves to increase the imaging rate by means of a strobe effect;
- **EP 1998680 family**: a complementary method to shear wave elastography allowing the viscoelastic area to be characterized by comparing the response of the area inside and outside the shear wave source (one application of which is cyst/solid lesion differentiation), which is owned by the Company;
- **EP 2069821 family**: 1.5D probe designed for an optimal shear wave elastography mode for high imaging rate, which is owned by the Company;
- **EP 2084702 family**: effective method for shear wave generation based on radiation pressure on an acoustic interface, which is owned by the Company;
- **EP 1866667 family**: 3D viscoelastic imaging patent with a specific determining treatment method for reliability of results, which is owned by the Company;
- **EP 1531729 family**: ultrasound wave focusing method by iterative learning, which is owned by the Company;

- **EP 2146640 family**: one-dimensional method for measuring the viscoelasticity of an area based on acoustic radiation force and evaluation of the propagation in the area of interest, which is owned by the Company;
- **EP 2437666 family**: imaging procedure and device for assessing heart contractility based on shear wave elastography, which is owned by the Company;
- **EP 2459071 family**: procedure and device for viscoelastic characterization of an area based on shear wave elastography within an area subjected to transient change (change of temperature or compression rate), which is co-owned by the Company;
- **EP 2561380 family**: generation and summation method of shear waves by radiation force that increases the distance of the wave propagation in complex areas, which is co-owned by the Company;
- **EP 2958495 family**: device for selection and activation of ultrasound probes without mechanical relays, which is owned by the Company;
- **EP 2673657 family**: new ultrafast imaging method for a spatially limited area without loss of image quality due to the spheroidal base, which is owned by the Company;
- **EP 3097432 family**: use of a contrast agent imaging method employing a phase shift, which is owned by the Company;
- **EP 3213109 family**: patent for adaptive gain for continuous intensity imaging during a transition between imaging states;
- **EP 3213108 family**: patent for the calculation and display of a stability index for performing shear wave elastography: “stability index”;
- **EP 3236857 family**: patent for adapting the push angle during shear wave elastography for muscle fiber imaging;
- **EP 3384313 family**: patent covering an orthogonal apodization method for improving ultrasound image quality;
- **WO 2018/046740 family**: real-time triple imaging mode (B-mode, elastography, color Doppler);
- **WO 2019/012303 family**: software-only ultrasonic imaging system with functional adaptation.

Other patents within the focused ultrasound therapy domain. The patent portfolio is unchanged on previous years:

- **EP 1326536 family**: method of focusing the ultrasound beam in the brain based on time reversal, which is owned by the Company;
- **EP 2210128 family**: insonification device with a three-dimensional network of spiral emitters able to generate a beam of high-intensity focused waves, which is owned by the Company;
- **EP 2257942 family**: insonification device with an internal cooling chamber, which is owned by the Company;
- **US7837623 family**: non-invasive method of obtaining a pre-determined acoustic wave field in an essentially uniform medium which is concealed by a bone barrier, imaging method and device for carrying out said methods, which is owned by the Company;
- **US7679988 family**: procedure and device for focusing sound waves, under license.

The Company is of the view that all of its intellectual property is properly protected.

As part of the Venture Loan arranged with Kreos (see in particular Section 22.5), the Company pledged the following patents:

- **EP 2249708 family**: a device that allows simultaneous display on the main screen and on an additional screen in order to facilitate use of the ultrasound imaging system, which is owned by the Company;
- **EP 2160597 family**: a method providing imaging of all the viscoelastic properties of an area (elasticity and viscosity), which is owned by the Company;
- **EP 2101191 family**: a synthetic and ultrafast method of image formation based on plane waves and applicable to all ultrasonic wave imagery modes (B, Doppler, SWE, contrast), which is owned by the Company;
- **EP 1546757 family**: shear wave elastography method using a supersonic push (ultrasonic wind generation in the tissue using ultrasonic radiation pressure) to generate the radiation force and the plane waves ultrafast imagery to obtain a film of the displacement of the wave, which is owned by the Company.

11.2.3. Licensing agreements

The Company has four licenses:
A first license, granted by SEISME, concerns patent families/patent applications currently being used as part of ongoing research and development programs.

Licensing agreement: on July 20, 2011, the Company entered into a licensing agreement with Societe d'Elastographie Impulsionnelle pour les Systèmes de Mesures de l'Elasticité (SEISME), valid until the expiration date of the relevant patent WO2000055616 held by the latter, to the benefit of SuperSonic Imagine. This agreement includes exclusive exploitation in 2011 and 2012 in return for payment of a lump sum. It is non-exclusive from 2013 until the end of the contract.

The main clauses of the license agreement are described in Chapter 22 of this document.
Second licensing agreement CNRS AUTOFOC, this agreement is discussed in Chapter 22. It is being renegotiated with the academic partners.
The company also agreed two licensing agreements with two major industry players.
A summary of the material provisions of this agreement is contained in Chapter 22 of this document.

11.3. OTHER INTELLECTUAL PROPERTY

The Company is also the owner of trademarks and domain names.

11.3.1. Trademarks registered by the Company

In its strategy for filing trademarks, the Company registers them either by a national or by an international route. Trademarks are usually registered for a period of ten years and can be renewed indefinitely. Some countries require proof of use for the rights to be maintained. In other countries,

the registrations remain valid unless a third party having an interest initiates a procedure for revocation due to the trademark not being used.

The Company has already ensured the protection of brand names and semi-figurative marks in a large number of countries; the list of trademarks owned by SuperSonic Imagine is broken down into three categories:

Semi-figurative trademarks  in class 10 of the Nice Classification (except Canada, a country in which there is no classification)
"AIXPLORER" trademarks filed in class 10 of the Nice Classification

Semi-figurative trademarks  filed in classes 10, 41 and 42
As part of the Venture Loan arranged with Kreos (see in particular Section 22.5), the Company pledged certain industrial property rights and in particular the Aixplorer MultiWave international trademark and the Aixplorer MultiWave community trademark.

11.3.2. Domain names filed by the Company

At present, the Company also owns 51 domain names, which are usually renewable every year or every two years and indefinitely, allowing it to cover the main TLDs (.fr .com .us .cn, etc.) as well as the Group's main key words (supersonicimagine, Aixplorer, Aixplorer-mach).

12. TRENDS

12.1. RECENT DEVELOPMENTS SINCE THE 2018 BALANCE SHEET DATE

This chapter summarizes the major developments of 2019 up through the date of this report. The major developments in 2018 are detailed in Section 6.1.

On April 17, 2019, the Group announced its revenue for Q1 2019. It totaled €6.04 million, up 20% on Q1 2018.

Outlook for the future and objectives

The Group continues to develop the functionality of its Aixplorer ultrafast platform to make SuperSonic Imagine the benchmark for non-invasive care pathways for breast and liver conditions.
Accordingly, in late 2018 the Group launched its new Aixplorer MACH 30 platform, which will allow it to enrich its product offering, streamline its product cost because it can be used across the range and the different applications, make the product more reliable, and facilitate connectivity for remote maintenance, future big data applications and artificial intelligence.
In parallel, the Group plans to continue investing as a matter of priority in sales teams in its three major markets (China, United States and France) while continuing to grow in other regions through distributors.
Over the past three years, we have refocused the company's strategy along two main lines:

1) Clinical: liver and breast imaging;
2) Geographic: direct sales in France, China and the USA.

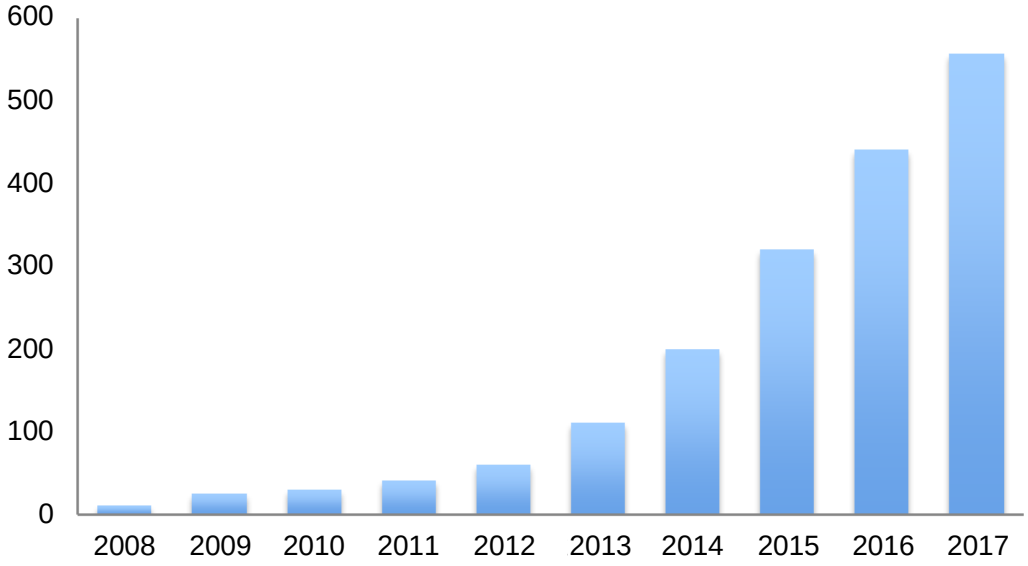
On the strength of this new focus, the Group's medium- and long-term objectives are:

- To generate 40% of our revenue from clinical specialties;
- To achieve a gross margin of more than 50% in the medium term;
- To reach break-even in terms of EBITDA within five years from the Company's initial public offering (IPO). EBITDA(*) improved by €0.1 million, amounting to a loss of €6.5 million in 2018 compared with a loss of €6.6 million in 2017. EBITDA is expected to turn positive in 2019 in line with the IPO target.

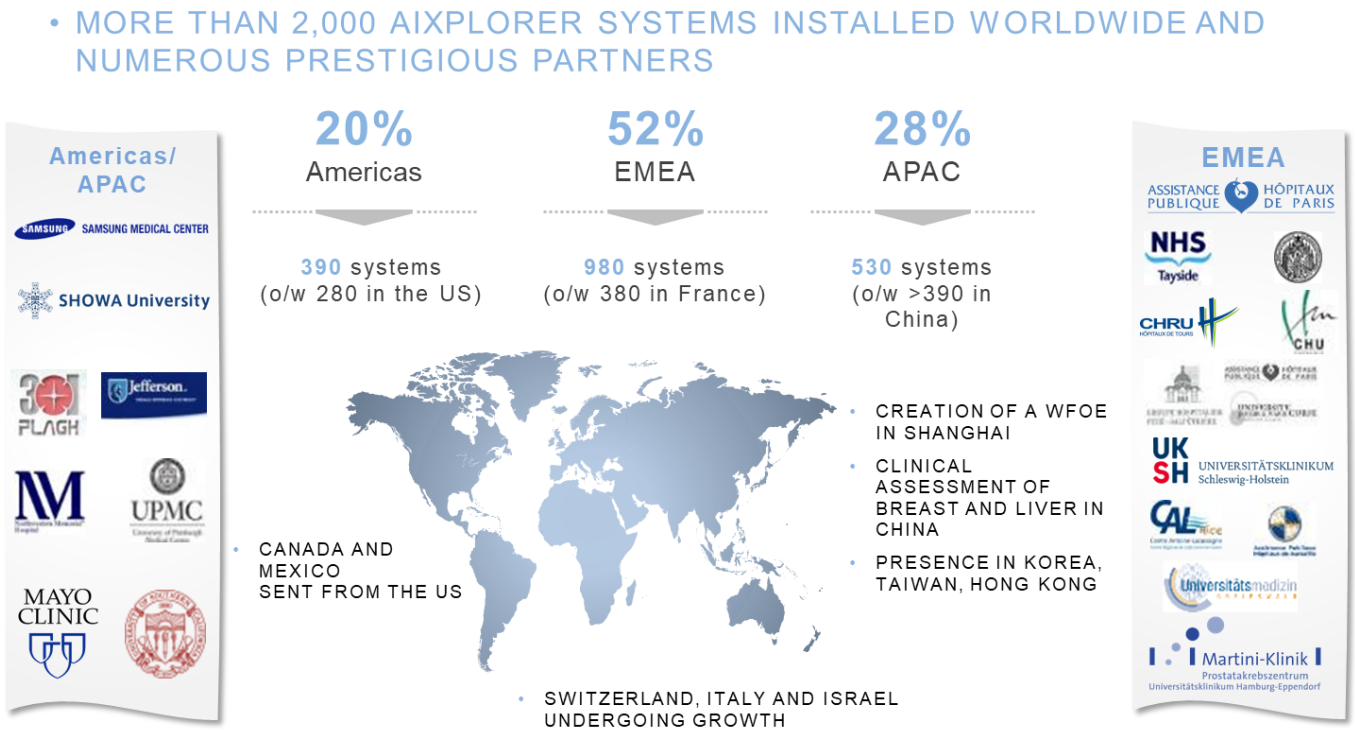
* 2018 EBITDA represents the current operating loss, namely -€9.6 million, before taxes of -€581,000 and depreciation, amortization and provisions of -€2.6 million. 2018 EBITDA thus totaled -€6.5 million.
* 2017 EBITDA represents the current operating loss, namely -€9.9 million, before taxes of -€724,000 and depreciation, amortization and provisions of -€2.5 million. 2017 EBITDA thus totaled -€6.6 million.

Technological innovation is continually underpinned by new clinical publications in peer-reviewed journals worldwide. At present, there are over 400 publications on the breast and the liver.

Compendium of publications done using Aixplorer:



The ongoing adoption of Aixplorer in different regions of the world by more and more leading institutions reaffirms the company's strategy.



13. EARNINGS ESTIMATES AND FORECASTS

The Group does not plan to make forecasts or estimates of profits .

14. COMPOSITION OF ADMINISTRATIVE, MANAGEMENT AND SUPERVISORY BODIES

During fiscal year 2018, the Company's corporate governance structure was changed to that of a limited company with a board of directors governed by Articles L. 225-17 to L. 225-56 of the French Commercial Code. The change took place at the Combined Shareholders' Meeting of May 28, 2018.

Members of the Supervisory Board and Management Board therefore ceased to hold office as of the same date.

As a result of this change in governance structure, all members of the Supervisory Board were appointed as directors by the Shareholders' Meeting. The Chairman of the Supervisory Board was appointed as Chairman of the Board of Directors and the Chairwoman of the Management Board was appointed as Chief Executive Officer of the Company.

The Company's Bylaws and the Charter of the Board of Directors can be found in Section 21.2 and on the Company's website.

14.1. COMPOSITION OF THE ADMINISTRATIVE AND MANAGEMENT BODIES SINCE THE CHANGE IN GOVERNANCE STRUCTURE ON MAY 28, 2018

14.1.1. Composition of the Board of Directors

The Board of Directors must consist of at least three members and no more than 18 members. It is currently composed of six members, four of whom are independent.
Directors serve a three-year term of office. A director's term of office expires at the end of the Ordinary Shareholders' Meeting that votes on the financial statements for the previous fiscal year, held during the year in which the director's term expires.

The number of directors who are more than 75 years of age may not be greater than one-third of the directors in office. When this limit is exceeded during a term of office, the oldest director is automatically deemed to have resigned at the end of the next Shareholders' Meeting.

Directors are always eligible for re-election; they may be dismissed at any time by decision of the Shareholders' Meeting.

In accordance with the terms of its Charter, the Board of Directors must, insofar as possible, have at least two independent directors. This number may be reduced to one member if the Board has five or fewer members.

The Board of Directors elects a Chairman from among its members. The Chairman must be a natural person. The Board decides on the length of the Chairman's tenure, which may not exceed his or her term of office as director. The Board may dismiss the Chairman at any time. The Board also sets the Chairman's compensation.

Name	Position	Main offices held outside the Group	Position dates
Michael Brock	Chairman of the Board of Directors and independent member	Consultant	Date of first appointment: May 28, 2018 (previously a member of the Supervisory Board since October 31, 2016) Date of expiration of term: Ordinary Shareholders' Meeting voting on the financial statements for the year ending December 31, 2020
BPI France*, represented by Philippe Boucheron	Director	Director of Investments, BPI France Investissement	Date of first appointment: May 28, 2018 (previously a member of the Supervisory Board since December 14, 2010) Date of expiration of term: Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ending December 31, 2020
Mérieux Equity Partners, represented by Thierry Chignon	Director	Senior Partner of Mérieux Equity Partners	Date of first appointment: May 28, 2018 (previously a member of the Supervisory Board since September 27, 2010) Date of expiration of term: Ordinary Shareholders' Meeting voting on the financial statements for the year ending December 31, 2020
Ghislaine Gueden	Independent director	Coaching and management consulting	Co-opted by the Board of Directors: February 13, 2019 Ratification: Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ended December 31, 2018 Date of expiration of term: Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ending December 31, 2020
Danièle Guyot-Caparros	Independent director	Senior Advisor Life Sciences and Health Care Deloitte France	Co-opted by the Board of Directors: June 21, 2018 Ratification: Ordinary Shareholders' Meeting

			voting on the financial statements for the fiscal year ended December 31, 2018 Date of expiration of term: Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ending December 31, 2020
Guy Frija	Independent director	Doctor	Date of first appointment: May 28, 2018 (previously a member of the Supervisory Board since December 20, 2017) Date of expiration of term: Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ending December 31, 2020

*Bpifrance SA, which owns Bpifrance Participations SA, which in turn owns Bpifrance Investissement SAS, is jointly owned by EPIC Bpifrance and Caisse des Dépôts et Consignations (CDC).

Ratification of the co-optation of Danièle Guyot-Caparros as director
The Shareholders' Meeting due to take place on May 13, 2019 will be asked to ratify the appointment of Danièle Guyot-Caparros, co-opted as director at the Board of Directors' meeting on June 21, 2018 to replace Sabine Lochmann, who resigned.
Danièle Guyot-Caparros was appointed for the remainder of Sabine Lochmann's term of office, i.e. until the end of the Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ending December 31, 2020.

Ratification of the co-opting of Ghislaine Gueden as director
The Shareholders' Meeting scheduled for May 13, 2019 will be asked to ratify the appointment of Ghislaine Gueden, co-opted as director by the Board of Directors on February 13, 2019 to replace Alexia Perouse, who had resigned.
Ghislaine Gueden was appointed for the remainder of Alexia Perouse's term of office, i.e. until the end of the Ordinary Shareholders' Meeting voting on the financial statements for the fiscal year ending December 31, 2020.

The Company applies Recommendation R3 of the Corporate Governance Code published in September 2016 by MiddleNext regarding independent members of the Board of Directors.

Michael Brock, Ghislaine Gueden, Danièle Guyot-Caparros and Guy Frija are independent directors as defined by these provisions, insofar as they:

- are neither employees nor Executive Directors of the Company or of a company in its Group, and have not had such status during the last five years;
- are not significant clients, suppliers, or bankers for the Company, or for whom the Company or its Group would represent a significant share of its business, and have not been over the past two years;
- are not major shareholders in the Company or holders of significant voting rights;
- do not have any close family ties with a director or a major shareholder; and
- have not been a statutory auditor of the Company in the last six years.

The Board of Directors is currently composed of four men and two women, which means that 33% of its members are women. There are plans to seek more balanced representation when appointing new members. The Company fully complies with the provisions of Articles L.225-69-1 and L.226-4 of the French Commercial Code.

A representative of Kréos Capital V (UK) Limited attends meetings of the Board of Directors of SuperSonic Imagine as a non-voting member (*censeur*).
The professional addresses of Board members are as follows:

Name	Address
Michael Brock	Skovringen 31, 2950 Vedbaek – Denmark
BPI France, represented by Philippe Boucheron	Bpifrance, 6-8 Bd. Haussmann, 75009 Paris – France
Mérieux Equity Partners, represented by Thierry Chignon	Mérieux Equity Partners, 3 Rue Marcel Gabriel Rivière, 69002 Lyon – France
Ghislaine Gueden	5 Avenue Caroline, 92600 Asnières sur Seine – France
Danièle Guyot-Caparros	4 rue Eblé, 75007 Paris – France
Guy Frija	3, rue du Dome, 75116 Paris – France

14.1.2. Executive Management

The Chairman of the Board of Directors, or another individual appointed by the Board of Directors with the title of Chief Executive Officer, takes responsibility for the executive management of the Company.

The Chief Executive Officer is fully empowered to act in the Company's name in all circumstances. The Chief Executive Officer exercises these powers within the scope of the corporate purpose and subject to those powers that the law expressly grants to Shareholders' Meetings and to the Board of Directors.

The Chief Executive Officer represents the Company in its dealings with third parties. The Company is bound by the actions of the Chief Executive Officer, even if such actions are *ultra vires*, unless the

Company can prove that the third party knew that the action was *ultra vires*, or could not have been ignorant of that fact given the circumstances, the publication of the bylaws alone not being sufficient evidence.

The Chief Executive Officer may not be over 75 years of age. If the Chief Executive Officer should reach this age limit, he or she would be deemed to have resigned as a matter of course. However, his or her term of office would continue until the next meeting of the Board of Directors, when a new Chief Executive Officer would be appointed.

Following the change in governance structure, the Board of Directors decided at its meeting of May 28, 2018 to separate the Company's executive management from the chairmanship of the Board of Directors and to entrust the executive management of the Company to Michèle Lesieur (who, prior to the change in governance structure, served as Chairman of the Management Board).

14.1.3. Other positions held by directors and the Chief Executive Officer

	Other positions currently held outside the Group		
	Type of position SB: Supervisory Board BD: Board of Directors	**Company**	**Listed Company**
Michael Brock	Chairman and CEO Chairman Director Director Director Director	DDD Diagnostic Biolid Group Xena Network A/S Floating Power Plant Unisense Ibsen Photonics	No No No No No No
BPI France Investissements (Philippe Boucheron)	Director Director Non-voting director Director Director SB member	ADVICENNE PHARMA GAMAMABS PHARMA STENTYS Limflow CORWAVE Ademtech	No No NYSE Euronext, Paris No No No
Mérieux Equity Partners (Thierry Chignon)	Chairman of the BD	Mérieux Equity Partners (Thierry Chignon)	Chairman of the BD
Ghislaine Gueden	SB member	GEREP	No
Danièle Guyot-Caparros	Member of the BD	Onxeo	NYSE Euronext, Paris
Guy Frija	Chairman Co-Chairman Consultant Member of the Scientific Committee Co-Chairman	Eurosafe Imaging ISRQSA HEGP IRSN MEDICEN	No No No No No

Autres mandats exercés en dehors du Groupe au cours des 5 derniers exercices, *mais ayant cessé à ce jour*			
	Type of position BD: Board of Directors SB: Supervisory Board	Company	Listed Company
Michael Brock	Chairman and CEO Chairman of the BD Chairman of the SB Chairman Chairman Chairman Director	BK Medical Reson DDD Diagnostic Omni-Drive Solum Group Vesicon S.A. Brunata	No No No No No No No
BPI France Investissements (Philippe Boucheron)	SB member SB member SB member SB member Director Non-voting director Director	LIBRAGEN CRYOLOG TXCELL AUREUS PHARMA INTETRAGEN VEXIM Arterial Remodelling Technologies	No No Euronext Paris No Alternext, Paris Alternext, Paris No
Mérieux Equity Partners (Thierry Chignon)	Permanent representative Director Director Director Director Director Director	Matignon Investissement et Gestion ANTEIS Arterial Remodelling Technologies MAPI (Vice Chairman of the Board) MEDICREA NANOBIOTIX ORTEQ VISIOMED	No No No No Euronext, Paris Euronext, Paris No Euronext, Paris
Ghislaine Gueden	-	-	-
Danièle Guyot-Caparros	SB member	Diaxonhit	Alternext, Paris
Guy Frija	Chairman Chairman Chairman	HEGP SFR (Société Française de Radiologie) ESR (Société Européenne de Radiologie)	No No No

The Chief Executive Officer, Michèle Lesieur, holds no other positions outside the Group, nor has she held other positions outside the Group during the last five fiscal years and which have now ended.

14.1.4. Declarations relating to directors and senior management

To the knowledge of the Company, there are no family relationships among the individuals named above.

To the knowledge of the Company, none of these individuals, during the last five years:

- has been convicted of fraud;
- has been party to a bankruptcy, receivership or liquidation in his/her capacity as a senior executive or director;
- has been prohibited from acting in a managerial capacity; or
- has been subject to convictions or official public sanctions handed down by legal or regulatory authorities, including by designated professional bodies.

14.1.5. Biographies of the Chief Executive Officer and directors

The biographies are available on the Company's website:

- For the Chief Executive Officer and members of the management team, at https://www.supersonicimagine.com/SuperSonic-Imagine/Executive-Committee;
- For members of the Board of Directors, under SuperSonic Imagine/ Board of Directors, at https://www.supersonicimagine.com/SuperSonic-Imagine/Board-of-directors.

14.2. COMPOSITION OF THE MANAGEMENT AND SUPERVISORY BODIES PRIOR TO

THECHANGE IN THE GOVERNANCE STRUCTURE ON MAY 28, 2018

14.2.1. Composition of the Management Board

The Management Board was to be composed of no more than seven members. As of May 28, 2018, the date of the change in governance structure, it had four members. The members of the Management Board were natural persons. They were not required to be shareholders.

They were appointed for a four-year term by the Supervisory Board. All members of the Management Board were eligible for re-election.

The members of the Management Board could not be over 75 years of age.

Name	Position	Operating duties and other positions held in the Group	Position dates
Michèle Lesieur	Chairwoman of the Management Board	Corporate officer of: – SuperSonic Imagine SA	Date of first appointment: November 23, 2016 Expiration of term: May 28, 2018
Jacques Souquet	Member of the Management Board	Director of Strategy and Innovation Corporate officer of: SuperSonic Imagine, GmbH SuperSonic Imagine HK SuperSonic Imagine Ltd SuperSonic Imagine SRL	Date of first appointment: March 12, 2005 Term renewed on: December 1, 2008, December 14, 2012 and December 31, 2016 Expiration of term: May 28, 2018
Kurt Kelln	Member of the Management Board	Executive Vice President and Chief Business Officer	Date of first appointment: April 19, 2012 Term renewed on: February 14, 2014 and December 31, 2016 Expiration of term: May 28, 2018
Elisabeth Winter	Member of the Management Board	Executive Vice President and Chief Financial Officer	Date of first appointment: June 21, 2016 Expiration of term: May 28, 2018

14.2.2. Composition of the Supervisory Board

The Supervisory Board was required to have at least three members and no more than 18 members. As of May 28, 2018, the date of the change in governance structure, it had six members, four of whom were independent.

Members of the Supervisory Board served a three-year term. Members of the Supervisory Board could be re-elected but could not be over 85 years of age.

In accordance with the terms of the Supervisory Board's Charter, the Supervisory Board was required, insofar as possible, to have at least two independent members. This number could be reduced to one member if the Board had five or fewer members.

Name	Position	Main offices held outside the Group	Position dates
Michael Brock	Chairman of the Supervisory Board and independent member	Consultant	Date of first appointment: October 31, 2016 Expiration of term: May 28, 2018
BPI France*, represented by Philippe Boucheron	Member of the Supervisory Board	Director of Investments, BPI France Investissement	Date of first appointment: December 14, 2010 Date of first renewal of term: June 27, 2013, then March 11, 2016 Expiration of term: May 28, 2018
Mérieux Equity Partners, represented by Thierry Chignon	Member of the Supervisory Board	Chief Executive Officer of Mérieux Equity Partners	Date of first appointment: September 27, 2010 Date of first renewal of term: June 27, 2013, then March 11, 2016 Expiration of term: May 28, 2018
Alexia Perouse	Independent member of the Supervisory Board	Chairwoman Cyann Holding	Date of first appointment: May 29, 2015 Expiration of term: May 28, 2018
Sabine Lochmann Beaujour	Independent member of the Supervisory Board	Chief Executive Officer of BPI group	Date of first appointment: Supervisory Board meeting of May 28, 2013 Ratification: Shareholders' Meeting of June 27, 2013 Date of first renewal of term: March 11, 2016 Date of expiration of term: Ordinary Shareholders' Meeting Expiration of term: May 28, 2018
Guy Frija	Independent member of the Supervisory Board	Doctor	Date of first appointment: December 20, 2017 Expiration of term: May 28, 2018

*Bpifrance SA, which owns Bpifrance Participations SA, which in turn owns Bpifrance Investissement SAS, is jointly owned by EPIC Bpifrance and Caisse des Dépôts et Consignations (CDC).

The Company applied Recommendation R3 of the Corporate Governance Code published in September 2016 by MiddleNext regarding independent members of the Supervisory Board.

Michael Brock, Alexia Perouse, Sabine Lochmann Beaujour and Guy Frija were independent members of the Supervisory Board as defined by those provisions insofar as they:

- were neither employees nor Executive Directors of the Company or of a company in its Group, and have not had such status during the last five years;
- were not significant clients, suppliers, or bankers for the Company, or for whom the Company or its Group would represent a significant share of its business and have not been over the past two years;
- were not major shareholders in the Company or holders of significant voting rights;
- did not have any close family ties with a director or a major shareholder; and
- had not been a statutory auditor of the Company in the last six years.

As of May 28, 2018, the date of the change in governance structure, the Supervisory Board was composed of four men and two women, which meant that 33% of its members were women. The Company fully complies with the provisions of Articles L.225-69-1 and L.226-4 of the French Commercial Code.

A representative of Kréos Capital V (UK) Limited attended meetings of the Supervisory Board of SuperSonic Imagine as a non-voting member (*censeur*).

14.3. CONFLICTS OF INTEREST IN ADMINISTRATIVE BODIES AND SENIOR MANAGEMENT

Some directors are shareholders, directly or indirectly, of the Company and/or holders of securities giving access to the Company's capital (see details in Section 17.3).

Related-party transactions are described in Note 40 to the consolidated financial statements in Section 20.1, "Consolidated financial statements prepared under IFRS for the fiscal year ended December 31, 2018" and the related-party agreements entered into by the Company are described in Section 19.3 "Statutory Auditors' reports on the related-party agreements entered into during the fiscal year ended December 31, 2018".

The Charter of the Board of Directors of the Company provides mechanisms for the prevention and management of conflicts of interest. Each director commits to maintaining independent analysis, judgment and action, and to participating actively in the Board's work. Members will inform the Board of conflicts of interest that they may face. In addition, the Charter reminds members of the regulations pertaining to the dissemination and use of inside information that are in effect, and specifies that members must refrain from carrying out transactions involving the Company's shares when they have inside information. Each director is required to declare to the Company and to the French Financial Markets Authority (Autorité des Marchés Financiers) any transactions involving the Company's shares that they carry out directly or indirectly.

To the best of the Group's knowledge, there are no current or potential conflicts of interest between the private interests of the Company's directors, and the interests of the Company.

To the best of the Company's knowledge, there have been no pacts or agreements whatsoever entered into with any of the shareholders, customers, suppliers, or other persons under the terms of which one of the directors or a member of the senior management of the Company has been appointed.

To the best of the Group's knowledge, as of the registration date of this Registration Document, the individuals mentioned in Section 14.1 "Senior managers and members of the Board of Directors" of this document are not subject to any restrictions regarding the sale of their shareholding in the Company.

15. COMPENSATION AND BENEFITS

15.1. COMPENSATION OF CORPORATE OFFICERS

Table No. 1: table summarizing the compensation, options and free shares granted to each Executive Director

Table summarizing the compensation and founders' warrants, stock warrants, free shares and/or stock options granted to each Executive Director		
In euros	FY 2018	FY 2017
Michèle Lesieur – Chairwoman of the Management Board and then Chief Executive Officer since May 28, 2018		
Compensation payable for the year	288,903	385,445
Value of stock options granted during the year (1)		
Value of performance shares granted during the year		68,373
Total	**288,903**	**453,818**
Jacques Souquet – Member of the Management Board until May 28, 2018 (2)		
Compensation payable for the year	93,685	293,961
Value of stock options granted during the year (1)		
Value of performance shares granted during the year		22,791
Total	**93,685**	**316,751**
Kurt Kelln – Member of the Management Board until May 28, 2018 (2)		
Compensation payable for the year	96,756	263,671
Value of stock options granted during the year (1)		
Value of performance shares granted during the year		22,791
Total	**96,756**	**286,461**
Elisabeth Winter – Member of the Management Board until May 28, 2018 (2)		
Compensation payable for the year	62,242	207,124
Value of stock options granted during the year (1)		
Value of performance shares granted during the year		22,791
Total	**62,242**	**229,915**
Claude Cohen-Bacrie – Member of the Management Board until June 21, 2017 (2)		
Compensation payable for the year		391,475
Value of stock options granted during the year (1)		
Value of performance shares granted during the year		72,864
Total	**-**	**464,339**
Total	541,586	1,751,285

(1) The valuation method is described in Note 16 to the consolidated financial statements which appear in Section 20.1 of this document;

(2) These Management Board members were not compensated for their office, but for their employment contract, which is separate from their corporate office.

Table No. 2: table summarizing the compensation of each Executive Director

The following table presents the compensation payable to Executive Directors for the fiscal years ended December 31, 2018 and 2017 and the compensation received by these same individuals during these same periods.

The Shareholders' Meeting of May 28, 2018 voted to change the corporate governance structure from a Supervisory Board and Management Board to a Board of Directors with a senior management team. Consequently, for 2018, the compensation granted to each corporate officer was calculated pro rata with his or her corporate office.

Summary of compensation granted to each corporate officer				
	FY 2018 (8)		FY 2017	
In euros	Amounts payable	Amounts paid	Amounts payable	Amounts paid
Michèle Lesieur – Chairwoman of the Management Board and then Chief Executive Officer since May 28, 2018				
Fixed annual compensation	275,000	275,000	275,000	275,000
Variable compensation (6)		96,548	96,548	
Extraordinary compensation				
Directors' attendance fees				
Benefits in kind (3) and (5)	13,903	13,903	13,897	13,897
Total	**288,903**	**385,451**	**385,445**	**288,897**
Jacques Souquet – Member of the Management Board until May 28, 2018				
Fixed annual compensation (10)	93,685	93,685	220,000	220,000
Variable compensation (1)		73,961	73,961	
Extraordinary compensation				
Directors' attendance fees				
Benefits in kind				
Total	**93,685**	**167,646**	**293,961**	**220,000**
Kurt Kelln – Member of the Management Board until May 28, 2018				
Fixed annual compensation (2)	88,658	88,658	182,461	182,461
Variable compensation (1)		60,881	60,881	
Extraordinary compensation				
Directors' attendance fees				
Benefits in kind (4)	8,098	8,098	20,329	20,329
Total	**96,756**	**157,637**	**263,671**	**202,790**
Elisabeth Winter – Member of the Management Board until May 28, 2018				
Fixed annual compensation (7)	61,492	61,492	141,900	141,900
Variable compensation (1)		64,774	64,774	
Extraordinary compensation				
Directors' attendance fees				
Benefits in kind (3)	750	750	450	450
Total	**62,242**	**127,016**	**207,124**	**142,350**
Claude Cohen-Bacrie – Member of the Management Board until June 21, 2017				
Fixed annual compensation			116,667	116,667
Variable compensation (1)				
Extraordinary compensation (9)			273,294	273,294
Directors' attendance fees				
Benefits in kind (3)			1,515	1,515
Total	**-**	**-**	**391,475**	**391,475**
Total	541,586	837,750	1,541,676	1,245,512

(1) The variable compensation of members of the Management Board was provided for under the employment contracts for each of the members except the Chairman. For each person, this compensation was capped at 50% of the gross annual salary, if 100% of targets were met. These targets were set by the Company's Supervisory Board following a proposal from the Compensation Committee. They concerned the achievement of a combination of collective and individual targets, which were set beforehand and adapted

to the areas of expertise covered by each of them, representing 75% and 25% of variable compensation respectively.

(2) Compensated pursuant to a U.S. employment contract with SuperSonic Imagine Inc. relating to his office as Executive Vice President and Chief Business Officer effective April 15, 2012.

(3) Company vehicle.

(4) Company vehicle and health insurance.

(5) Contribution to housing costs.

(6) The Chief Executive Officer's variable compensation is capped at €125,000, assuming 100% of targets are met. These targets are set by the Company's Board of Directors following a proposal from the Compensation Committee.

(7) Compensated pursuant to an employment contract signed with SuperSonic Imagine SA on November 26, 2012 as Chief Financial Officer and Executive Vice-President.

(8) For Jacques Souquet, Elisabeth Winter and Kurt Kelln, the compensation shown for 2018 in the table above only corresponds to the share of compensation for the period January 1 to May 28, 2018, since their tenure as members of the Management Board ended on that date.

- Severance payments.

Compensated pursuant to an employment contract signed with SuperSonic Imagine SA on April 1, 2015 as Director of Strategy and Innovation.

Table No. 3: table of attendance fees and other compensation received by non-executive directors

Attendance fees and other compensation received by non-executive directors		
Non-executive directors	**FY 2018 Amounts paid**	**FY 2017 Amounts paid**
Hermann Requardt		
Directors' attendance fees		12,500.00
Other compensation		
Michael Brock		
Directors' attendance fees	18,750.00	10,000.00
Other compensation	45,000.00	52,500.00
Sabine Lochmann Beaujour		
Directors' attendance fees	18,750.00	18,750.00
Other compensation		
Alexia Perouse		
Directors' attendance fees	5,000.00	16,250.00
Other compensation		
Total	**87,500**	**110,000**

Table No. 4: stock options granted to each Executive Director by the Company or any Group company during the fiscal years ended December 31, 2018 and 2017

None.

Table No. 5: stock options exercised by each Executive Director during the fiscal years ended December 31, 2018 and 2017

None.

Table No. 6: free shares granted to each Executive Director during the fiscal years ended December 31, 2018 and 2017

Stock options granted during the fiscal year to each Executive Director by the issuer and by any company in the group						
Directors	**No. and date of allocation of plan**	**Nature of options**	**Valuation of options according to the method used for the consolidated financial statements**	**Number of options granted during the fiscal year**	**Exercise price**	**Exercise period**
Allocations in 2018						
Michèle Lesieur	None			0		
Jacques Souquet	None			0		
Kurt Kelln	None			0		
Elisabeth Winter	None			0		
Allocations in 2017						
Michèle Lesieur	Free Share Plan 03/31/2017	Performance shares		300,000		from March 31, 2017 to March 30, 2022
Jacques Souquet	Free Share Plan 03/31/2017	Performance shares		100,000		from March 31, 2017 to March 30, 2022
Claude Cohen-Bacrie	Free Share Plan 03/31/2017	Performance shares		100,000		from March 31, 2017 to March 30, 2022
Kurt Kelln	Free Share Plan 03/31/2017	Performance shares		100,000		from March 31, 2017 to March 30, 2022
Elisabeth Winter	Free Share Plan 03/31/2017	Performance shares		100,000		from March 31, 2017 to March 30, 2022

Table No. 7: free shares that became available for each Executive Director during the fiscal years ended December 31, 2018 and 2017

Surname	First name	Number of free shares awarded in 2017	Number of free shares vested as of March 31, 2018
Cohen-Bacrie	Claude	100,000	20,000
Kelln	Kurt	100,000	20,000
Lesieur	Michele	300,000	60,000
Souquet	Jacques	100,000	20,000
Winter	Elisabeth	100,000	20,000
Total free share awards		**700,000**	**140,000**

Table No. 8: history of equity-linked instruments granted to directors (executive and non-executive)

This information is presented in Sections 21.1.4.1, 21.1.4.2, 21.1.4.3 and 21.1.4.4 of this document.

Table No. 9: stock options granted to the 10 most highly compensated employees who are not directors and stock options exercised by them

- Options and other equity-linked financial instruments granted to the 10 employees receiving the highest number of options

Number of options and other financial instruments	Weighted average price	Plan
In 2018		
75,000 performance shares	-	Performance share plan of April 26, 2018
In 2017:		
150,000 performance shares	-	Performance share plan of March 31, 2017

- Options and other equity-linked financial instruments held by the 10 employees with the highest number of options thus purchased

Total number of shares subscribed or purchased	Weighted average price	Plan
In 2018:		
308 Share subscription options	€0.10	2013 ordinary options
In 2017:		
5,817 Share subscription options	€0.10	2013 ordinary options

Table No. 10: history of free share awards to corporate officers (executive and non-executive)

The Company awarded 300,000 free shares to Ms. Lesieur as part of the March 31, 2017 performance share award for employees and corporate officers (see Section 21.1.4.4).

Table No. 11: compensation terms and other benefits granted to Executive Directors

Chief Executive Officer	Employment contract		Additional retirement plan		Indemnity or benefit due or likely to be due as a result of a termination or change of position		Indemnity relating to a non-compete clause	
	Yes	No	Yes	No	Yes	No	Yes	No
Michèle Lesieur		X		X	X (1)			X

(1) The Board of Directors defined a retirement benefit subject to performance conditions in accordance with Article L.225-90-1 of the French Commercial Code (criterion based on revenue, EBITDA and profit margin), with a maximum amount corresponding to 12 months' gross compensation (fixed and variable), i.e. €400,000, if all targets are met.

15.2. COMPENSATION POLICY FOR EXECUTIVE DIRECTORS

This report is prepared pursuant to the provisions of Article L.225-82-2 of the French Commercial Code and details below the compensation policy for Executive Corporate Officers being compensated for their corporate office, namely Michèle Lesieur, Chief Executive Officer, and Michael Brock, Chairman of the Board of Directors.

15.2.1. General principles of the compensation policy for Executive Corporate Officers

The principles and criteria for determining, distributing and awarding the various components of total compensation and benefits in kind of Executive Corporate Officers are discussed and approved by the Board of Directors.
The Board of Directors thus considers the following: the compensation of Executive Corporate Officers for the current year, the calculation of their variable compensation for the past year on the basis of actual performance, the variable compensation criteria for the current year and the directors' attendance fees of members of the Board of Directors.
The variable compensation criteria are determined by the Board of Directors with a view to aligning interests within the Company and in particular with the Company's medium- and long-term strategy and the interests of shareholders.

15.2.2. Compensation of the Chief Executive Officer and of the Chairman of the Board of Directors for 2018

Compensation of the Chief Executive Officer

- **Fixed compensation**

The fixed gross annual compensation of Michèle Lesieur, Chief Executive Officer, was set at €275,000 by the Supervisory Board on November 23, 2016.

- **Annual variable compensation**

The Supervisory Board meeting of November 23, 2016 voted to establish variable compensation for Michèle Lesieur. This compensation is capped at €125,000, subject to the achievement of targets set annually by the Board of Directors on the recommendation of the Compensation Committee.
The performance criteria established by the Board of Directors for 2018 are partly (30%) linked to personal targets and partly (70%) to collective targets.
The personal objectives are linked to the achievement of specific strategic goals within the remit of the executive director in question.

The collective objectives are linked to the sales performance, EBITDA and cash levels and certain specific strategic objectives.
The confidential nature of these objectives means they cannot be fully disclosed.
No variable compensation is due for 2018.

- **Other compensation and benefits in kind**

Michèle Lesieur receives a €1,000 monthly accommodation allowance.

Compensation of the Chairman of the Board of Directors for 2018

- **Fixed compensation**

The fixed gross annual compensation of Michael Brock, Chairman of the Board of Directors, was set at €45,000 by the Supervisory Board on October 31, 2016.

- **Directors' attendance fees**

Michael Brock receives directors' attendance fees as an independent member of the Board of Directors. The maximum amount of directors' attendance fees that can be received by the Chairman of the Board of Directors is capped at €25,000. Directors' attendance fees are only received for ordinary Board meetings (6 in total) scheduled at the start of the year.
The amount of directors' attendance fees for attendance at a Board meeting is €2,500. This amount is paid in full if the member attends the meeting in person, with half being paid if attendance is by video or teleconferencing.

15.3. PROVISIONS BOOKED BY THE COMPANY TO PAY PENSIONS, RETIREMENT BENEFITS AND OTHER BENEFITS PROVIDED TO THE CORPORATE OFFICERS

The Company has not booked provisions for the payment of pensions and other benefits for the corporate officers other than standard retirement plans and entitlements acquired under their work contract.

The Company has not granted any exceptional bonuses to corporate officers other than those described in Table 2 in Section 15.1.

16. FUNCTIONING OF THE ADMINISTRATIVE AND MANAGEMENT BODIES

16.1. MANAGEMENT OF THE COMPANY

The composition and related information can be found in Chapter 14, "Administrative, Management, and Supervisory Bodies", and Section 21.2, "Articles of Incorporation and Bylaws" of this Registration Document.
During fiscal year 2018, the Company's corporate governance structure was changed to that of a limited company with a board of directors governed by Articles L. 225-17 to L. 225-56 of the French Commercial Code. The change took place at the Combined Shareholders' Meeting of May 28, 2018.

Members of the Supervisory Board and Management Board therefore ceased to hold office as of the same date.

As a result of this change in governance structure, all members of the Supervisory Board were appointed as directors. The Chairman of the Supervisory Board was appointed as Chairman of the Board of Directors and the Chairwoman of the Management Board was appointed as Chief Executive Officer of the Company.

Management of the Company until May 28, 2018
The Management Board was responsible for managing and running the Company. It had the broadest powers to act under any circumstances on behalf of the Company, within the limits of the corporate purpose, and subject to the powers expressly allocated by law to the Supervisory Board and to Shareholders' Meetings. In relations with third parties, the Company was bound by the actions of the Management Board, even if such actions were *ultra vires*, unless the Company could prove that the third party knew that the action was *ultra vires*, or could not have been ignorant of that fact given the circumstances, the publication of the bylaws alone not being sufficient evidence.

The members of the Management Board would meet any time that the corporate interest so required and could be convened by the Chairman or by half of its members, in the location specified by the convening party.

Decisions of the Management Board were taken by the majority of members present or represented. Any member of the Management Board could be represented by another member of the Management Board, except in cases where the Management Board consisted of two members. In all circumstances, a member of the Management Board may not receive more than one proxy.

Management of the Company from May 28, 2018
Following its appointment, the Board of Directors decided at its meeting of May 28, 2018 to separate the Company's executive management from the chairmanship of the Board of Directors.

Since May 28, 2018, therefore, the Company has been managed and run by a Chief Executive Officer and a Board of Directors. The Chief Executive Officer is not a member of the Board of Directors.

The Chief Executive Officer is fully empowered to act on the Company's behalf in any circumstances. She exercises these powers within the limit of the corporate purpose and without prejudice to the powers expressly allocated by law to Shareholders' Meetings and to the Board of Directors, and specifically the limitations laid down in the Board's Charter.

She represents the Company in its dealings with third parties. The Company is bound by the actions of the Chief Executive Officer, even if such actions are *ultra vires*, unless the Company can prove that the third party knew that the action was *ultra vires*, or could not have been ignorant of that fact given the circumstances, the publication of the bylaws alone not being sufficient evidence.
However, the Chief Executive Officer may not grant any surety, endorsement or guarantee in favor of third parties without the Board's express permission.

In accordance with the bylaws, the Chief Executive Officer takes responsibility for delegating any or all of her powers.

16.2. INFORMATION REGARDING THE CONTRACTS LINKING THE DIRECTORS TO THE COMPANY

The employment contract of **Michèle Lesieur**, previously Chairwoman of the Company's Management Board, was suspended following the change in the Company's governance structure on May 28, 2018. It was subsequently terminated in favor of a contract for the corporate office of Chief Executive Officer.

There are no contracts between the Company and the members of the Board of Directors.

16.3. SUPERVISORY BOARD, BOARD OF DIRECTORS AND SPECIALIZED COMMITTEES – CORPORATE GOVERNANCE

16.3.1. Supervisory Board

Until the change in governance structure on May 28, 2018, the Supervisory Board exercised permanent oversight over the Company's management by the Management Board. To that end, it could perform such audits and controls as it saw fit, and ask to receive any documents it deemed useful for the performance of its work at any time during the year.

- **Information for the Supervisory Board:**

At least once a quarter, the Management Board would present a report on the state of the Company's activities to the Supervisory Board at a Supervisory Board meeting.

- **Supervisory Board Charter:**

The Supervisory Board Charter was issued on July 2, 2009, and updated on October 22, 2009, November 25, 2010 and June 4, 2014. It notably contained the rules of conduct and the obligations of the members of the Company's Supervisory Board.

- **Evaluation of the Supervisory Board:**

The Supervisory Board conducted regular self-assessments of its functioning and work. This self-assessment was formally conducted in conformity with the provisions of the Charter every two years, with the assistance of independent third parties, as needed.

The final assessment of the Supervisory Board took place in the first half of 2018.

16.3.2. Board of Directors

The composition and information relating to members of the Board of Directors are discussed in Chapter 14, "Administrative, Management and Supervisory Bodies" and Section 21.2, "Articles of Incorporation and Bylaws" of this document.

The Board of Directors is given regular detailed information on the state of the Company, its business development, research projects, clinical programs and financial position.

Board of Directors' Charter:

The Board of Directors' Charter was issued on November 22, 2018. It may be consulted on the Company's website. It notably contains the rules of conduct and the obligations of the members of the Company's Board of Directors. Each member of the Board of Directors commits to maintaining independent analysis, judgment and action, and to participating actively in the Board's work. Members will inform the Board of conflicts of interest that they may face. In addition, the Board of Directors' Charter reminds members of the regulations in effect pertaining to the dissemination and use of inside information and specifies that members must refrain from carrying out transactions involving the Company's shares when they have inside information. Each director is required to declare to the Company and to the French Financial Markets Authority (Autorité des Marchés Financiers) any transactions involving the Company's shares that they carry out directly or indirectly.

Evaluation of the Board of Directors:

The Board of Directors conducts regular self-assessments of its functioning and work. In accordance with the recommendations of the Corporate Governance Code for small and midcap companies published by MiddleNext in September 2016, this self-assessment will be formally carried out each year with the assistance of independent third parties, as needed.

The Board of Directors will be evaluated for the first time in the first half of 2019.

The table below shows the Company's position in relation to all these recommendations.

Recommendations of the MiddleNext Code	Adopted	Will not be adopted	Discussion pending
I. "Supervisory" power			
R1: Ethics of Board members	X		
R2: Conflicts of Interest	X		
R3: Board composition – Independent members	X		
R4: Information of Board members	X		
R5: Organization of Board and Committee meetings	X		
R6: Establishment of Committees	X		
R7: Establishment of a Board Charter	X		
R8: Selection of each director	X		
R9: Terms of Board members	X		
R10: Director compensation	X		
R11: Establishment of the assessment of the Board of Directors' work	X		
R12: Shareholder relations	X		
I. Executive power	**X**		
R13: Definition and transparency of compensation to Executive Directors	X		
R14: Executive succession planning	X		
R15: Concurrent holding of employment contracts and directorships	X		
R16: Golden handshakes	X		
R17: Supplementary pension plans	N/A		
R18: Stock options and allocation of free shares	X		
R19: Review of areas requiring special attention	X		

At the registration date of this Registration Document, the Group notably intends to abide by:

- Recommendation R15 regarding the concurrent holding of employment contracts and corporate office: in accordance with this, the Chief Executive Officer of the Company only holds a corporate office.
- Recommendation R3 regarding the presence of independent members on the Board of Directors: Michael Brock (Chairman), Guy Frija, Danielle Guyot-Caparros and Ghislaine Gueden are independent directors pursuant to the provisions of the Corporate Governance Code published in September 2016 by MiddleNext, insofar as they:
  - are neither employees nor Executive Directors of the Company or of a company in its Group, and have not had such status during the last five years;
  - are not significant clients, suppliers, or bankers for the Company, or for whom the Company or its Group would represent a significant share of its business and have not been over the past two years;
  - are not major shareholders in the Company or holders of significant voting rights;
  - do not have any close family ties with a director or a major shareholder; and
  - have not been a statutory auditor of the Company in the last six years.

The Company accordingly believes that it complies with all the recommendations except for those relating to supplementary pensions insofar as none have been granted to date.

16.3.3. Specialized Committees

16.3.3.1. AUDIT COMMITTEE

Composition
The Audit Committee is composed of a minimum of two members designated by the Board of Directors. The members of the Audit Committee are chosen from among the members of the Board of Directors. To the extent possible, two-thirds of them are independent members, of whom at least one has special skills in financial or accounting matters, although all current members of the Audit Committee have proven skills in financial and accounting matters.

To date, the members of the Audit Committee are:

- Danielle Guyot-Caparros (Chairwoman of the Audit Committee);
- Bpifrance Investissement (formerly CDC Entreprises), represented by Philippe Boucheron;
- Mérieux Participations, represented by Thierry Chignon;
- Danielle Guyot-Caparros is an independent member.

Responsibilities
Without prejudice to the matters within the remit of the Board of Directors, the Audit Committee is responsible in particular for:

- Supervising the process used to prepare financial information;
- Assuring the effectiveness of the internal control and risk management systems;
- Supervising the legal audit of the annual, semi-annual and, as necessary, quarterly parent company and consolidated financial statements performed by the statutory auditors;
- Issuing a recommendation on the statutory auditors nominated for appointment at the Shareholders' Meeting and reviewing the terms of their compensation;
- Ensuring that the independence of the statutory auditors is respected;
- Examining the conditions for use of derivative products;
- Regularly informing themselves of significant legal disputes;
- Examining the Company's procedures for receiving, retaining and handling claims relating to accounting matters and accounting controls carried out internally; considering questions arising from the audit of the financial statements, as well as documents transmitted by employees on an anonymous and confidential basis that may call into question practices in accounting matters or in the audit of the financial statements; and
- More generally providing advice and formulating any appropriate recommendations in the areas mentioned above;
- Signing off in advance on any services provided by the Statutory Auditors outside of statutory auditing.

Functioning
The Audit Committee meets at least twice a year, with the Statutory Auditors if its Chairman deems it useful, following a schedule set by its Chairman, to examine the annual parent company and consolidated financial statements, and as necessary, the interim financial statements, on the basis of an agenda established by its Chairman and sent to the members of the Audit Committee. In any event, it meets prior to the Board meeting called to examine the annual financial statements. It also meets at the request of its Chairman, the Chairman or Vice Chairman of the Board of Directors, and at the request of the Chief Executive Officer.

During the fiscal year ended December 31, 2018, the Audit Committee met six times and the average attendance rate of Audit Committee members was 72%.

The Audit Committee may hear from any member of the Company's management and proceed with any internal or external audit on any subject that it believes falls within its remit. The Chairman of the Audit Committee will give prior notice of such action to the Chief Executive Officer and the Chairman of the Board of Directors. In particular, the Audit Committee is empowered to interview individuals who participate in the preparation of the financial statements or in their audit (Chief Financial Officer and other persons in charge of the finance department).

The Audit Committee interviews the statutory auditors. This interview may take place without the presence of any representative of the Company.

Reports
The Chairman of the Audit Committee will ensure that the minutes of the Committee's activities are provided to the Board of Directors, allowing it to be fully informed and thereby facilitating its discussions.

The report of the Board Chairman on corporate governance and internal control contains a presentation of the Committee's activity during the previous fiscal year.

If, in the course of its work, the Audit Committee becomes aware of significant risks that do not appear to have been handled properly, the Chairman will immediately alert the Chairman of the Board of Directors.

16.3.3.2. COMPENSATION COMMITTEE

Composition
The Compensation Committee consists of members appointed by the Board of Directors, including the Board Chairman. Independent members will represent, insofar as possible, the majority of its members.

At the date of this document, the members of the Compensation Committee were:

- Ghislaine Gueden (Chairwoman of the Compensation Committee);
- Michael Brock, Chairman of the Board of Directors;
- Ghislaine Gueden and Michael Brock are independent members, thereby representing the majority of this Committee's members.

Responsibilities
The Compensation Committee is responsible for:

- Making recommendations and proposals to the Board of Directors on:
  - Executive compensation, retirement or savings plans, benefits in kind and other monetary rights, including termination benefits. The Committee proposes the amounts and structure of compensation, particularly rules for establishing the variable portion, taking into account the strategy, objectives and results of the Company plus market practices; and
  - Plans for free shares, stock options and any other similar incentive mechanisms, particularly any individual grants to executives;

- Examining the total amount of directors' fees and the system for dividing them among the members of the Board of Directors;
- Preparing and presenting the reports, as needed, required by the Board of Directors' charter;
- Preparing all other recommendations that may be requested by the Board of Directors or Chief Executive Officer with respect to compensation.

Generally, the Compensation Committee provides all advice and makes all appropriate recommendations in the above subject areas.

Functioning

The Compensation Committee meets in accordance with a schedule set by its Chairman, on the basis of an agenda established by its Chairman and sent to the members of the Compensation Committee. It also meets at the request of the Chairman and Vice Chairman of the Board of Directors, and at the request of the Chief Executive Officer.

During the year ended December 31, 2017, the Compensation Committee met five times and the average attendance rate of members of the Compensation Committee was 100%.

The Compensation Committee may request from the Chief Executive Officer the assistance of any senior manager of the Company whose skills could facilitate the handling of a topic on the agenda. The Chairman of the Compensation Committee or the Chairman of the Meeting shall remind any participant of such participants' confidentiality obligations.

Reports

The Chairman of the Compensation Committee will ensure that the minutes of the Committee's activities are provided to the Board of Directors, allowing it to be fully informed and thereby facilitating its discussions.

The report of the Board Chairman on corporate governance and internal control contains a presentation of the Committee's activity during the previous fiscal year.

16.3.3.3. SCIENTIFIC COMMITTEE

Composition

The Board of Directors has established a Scientific Committee composed of seven active members. These were selected by the Board from among its members or externally for a three-year renewable term.

Responsibilities

The Scientific Committee meets when convened by the Company's Director of Research and Development. Its mission is to define the broad scientific goals of the Company and to assist the Company's engineers and scientists on all scientific, technical or clinical issues that may arise in connection with their activities. It proposes methods and strategies to achieve the Company's technological goals. It evaluates the work carried out by the Company and the results achieved.

16.4. CORPORATE GOVERNANCE REPORT

This report will be presented in connection with the Company's Ordinary Shareholders' Meeting called to approve the financial statements for the fiscal year ended December 31, 2018.

16.4.1. Corporate governance

16.4.1.1. PERIOD FROM JANUARY 1 TO MAY 28, 2018 – SUPERVISORY AND MANAGEMENT BODIES

16.4.1.1.1. THE MANAGEMENT BOARD

Composition of the Management Board
The Management Board is comprised as described in Section 14.2.1 of this document.

Functioning of the Management Board
The functioning of the Management Board is described in Section 16.1 of this document.

Work of the Management Board in 2018
The frequency of meetings of the Management Board reflects the various developments in the Company's business. Thus, the Management Board meets as frequently as the Company's situation justifies.

From January 1 to May 28, 2018, the Company's Management Board met three times.

16.4.1.1.2. SUPERVISORY BOARD

Composition of the Supervisory Board
The composition of the Supervisory Board is as described in Section 14.2.2 of this document.

Functioning of the Supervisory Board
The functioning of the Supervisory Board is as described in Section 16.3.1 of this document.

Work of the Supervisory Board in 2018
The frequency of meetings of the Company's Supervisory Board reflects the various developments in the Company's business. Thus, the Supervisory Board meets as frequently as the Company's situation justifies.

From January 1 to May 28, 2018, the Company's Supervisory Board met three times and the average attendance rate for the members of the Supervisory Board was 88%.
The Supervisory Board met on the following dates: February 14, March 12 and April 26, 2018.

From January 1 to May 28, 2018, the Supervisory Board notably addressed the following points:
- Review of the reports of the various committees and related decisions;
- Examination of the annual financial statements for the fiscal year ended December 31, 2017;
- Presentation of the consolidated financial statements for the last three fiscal years;
- Review of related-party agreements;
- Review of the Company's financial, commercial, production and quality information.

16.4.1.2. PERIOD FROM MAY 28 TO DECEMBER 31, 2018 – ADMINISTRATIVE AND MANAGEMENT BODIES

16.4.1.2.1. SENIOR MANAGEMENT

Background on the Chief Executive Officer
Background on the Chief Executive Officer can be found on the Company's website. The lists of offices held or that have been held within the Group or in other companies are reviewed in Section 14.1.3.

Functioning of the executive management
The functioning of the executive management, and in particular the separation of the executive management from the chairmanship of the Board of Directors, is described in Section 16.1 of this document.

16.4.1.2.2. BOARD OF DIRECTORS

Composition of the Board of Directors
The composition of the Board of Directors is as described in Section 14.1.2 of this document.
Background on the directors can be found on the Company's website.
The lists of offices held or that have been held within the Group or in other companies are reviewed in Section 14.1.3.

Functioning of the Board of Directors
The functioning of the Board of Directors is as described in Section 16.3.2 of this document.

Work of the Board of Directors in 2018
The frequency of meetings of the Board of Directors reflects the various developments in the Company's business. Thus, the Board of Directors meets as often as the Company's situation warrants it.

From May 28 to December 31, 2018, the Board of Directors met six times with an average rate of attendance by Board members of 80%. In 2018, the aggregate total for the Supervisory Board and the Board of Directors combined was nine meetings, with an average attendance rate of 81%. By comparison, during the fiscal year ended December 31, 2017, the Company's Supervisory Board met nine times and the average attendance rate of Supervisory Board members was 75%.

The Board of Directors met on the following dates: May 28, June 21, September 10, September 27, November 22 and December 13, 2018.

From May 28 to December 31, 2018, the Board of Directors notably addressed the following points:
- Review of the reports of the various committees and related decisions;
- Decision relating to the Company's governance structure;
- Review of related-party agreements;
- Approval of the 2019 budget;
- Adoption of a Board of Directors' Charter;
- Review of the Company's financial, commercial, production and quality information.

16.4.1.2.3. BOARD COMMITTEES

Audit Committee

The composition, powers and functioning of the Audit Committee are described in Section 16.3.3.1.

- Work in 2018:

During the fiscal year ended December 31, 2018, the Audit Committee notably addressed the following points:

- Examination of the annual financial statements for the fiscal year ended December 31, 2017 (parent company and IFRS consolidated financial statements);
- Monitoring of working capital and stock levels;
- Preparation and follow-up of financial communications;
- Monitoring of quality and production issues;
- Corporate risk analysis;
- Examination of interim financial statements.

Compensation Committee

The composition, powers and functioning of the Compensation Committee are described in Section 16.3.3.2 of this document.

- Work in 2018:

During the fiscal year ended December 31, 2018, the Compensation Committee notably addressed the following points:

- Review of 2017 targets and setting of 2018 targets for corporate officers;
- Organization of the Board of Directors;
- Recommendation regarding the indemnities due in the event of the departure of the Chief Executive Officer;
- Recommendation regarding the setting of attendance fees for members of the Board of Directors;
- Recommendation regarding the compensation of the Chairman of the Board of Directors.

Scientific Committee

- Composition

The Board of Directors has established a Scientific Committee composed of seven members. These were selected by the Board from among its members or externally for a three-year renewable term.
The Scientific Committee has the following members: Jacques Souquet, Mathias Fink, Nicolas Grenier, Gail R. Ter Haar, Prof. James F. Greenleaf; Prof. Jeffrey Colin Bamber and Peter Burns.
Background on all these people can be found on the Company's website.
The members of the Scientific Committee are paid in the form of fees, with the exception of Jacques Souquet (who is also a salaried employee) and Mathias Fink (who also benefits from a consulting agreement with the Company).

- Engagements

The engagements and powers of the Scientific Committee are described in Section 16.3.3.3.

16.4.1.2.4. DECLARATIONS CONCERNING THE SENIOR MANAGEMENT AND THE BOARD OF DIRECTORS

To the Company's knowledge, there is no familial link between the senior management or members of the Board of Directors.

To the Company's knowledge, within the past five years, no members of the senior management or of the Board of Directors:

- has been convicted of fraud;
- has been party to a bankruptcy, receivership or liquidation in his/her capacity as a senior executive or director;
- has been prohibited from acting in a managerial capacity; or
- has been subject to convictions or official public sanctions pronounced by legal or regulatory authorities.

16.4.2. Conflicts of Interest

16.4.2.1. TERMS FOR PREVENTING AND MANAGING CONFLICTS OF INTEREST

As indicated in Section 14.2, the Board of Directors' Charter provides for mechanisms to prevent and manage conflicts of interest. Each director commits to maintaining independent analysis, judgment and action, and to participating actively in the Board's work. Members will inform the Board of conflicts of interest that they may face. In addition, the Charter reminds members of the regulations pertaining to the dissemination and use of inside information that are in effect, and specifies that members must refrain from carrying out transactions involving the Company's shares when they have inside information. Each director is required to declare to the Company and to the French Financial Markets Authority (Autorité des Marchés Financiers) any transactions involving the Company's shares that they carry out directly or indirectly.

16.4.2.2. LIST OF POTENTIAL CONFLICTS OF INTEREST AND THE OPINION OF THE BOARD OF DIRECTORS

To the Company's knowledge, there are no current or potential conflicts of interest between the personal interests of the Company's management and Board of Directors, and the interests of the Company.

16.4.2.3. SERVICE CONTRACTS BETWEEN MEMBERS OF THE BOARD OF DIRECTORS AND THE COMPANY

There are no service agreements between members of the Board of Directors and the Company.

16.4.3. Application of the MiddleNext Corporate Governance Code for Listed Companies

The Company complies with the recommendations of the Corporate Governance Code for small-caps and mid-caps published by MiddleNext in September 2016. A presentation of the recommendations adopted can be found in Section 16.3.2 of this document.

16.4.4. Management compensation

16.4.4.1. COMPENSATION OF EXECUTIVE DIRECTORS

Compensation Policy (fixed portion, variable portion and criteria for allotment)
The compensation of the Chief Executive Officer is set by the Board of Directors following the recommendations of the Compensation Committee, which also sets the criteria for allotting the variable compensation (up to a maximum of €125,000).
The Annual Shareholders' Meeting of May 28, 2018 approved the principles and criteria for determining, dividing and allocating the fixed, variable and extraordinary components of the total compensation and benefits of all kinds that might be awarded to the Chief Executive Officer by reason of her office.

The Chief Executive Officer considered – as she does every year – the recommendations of the Compensation Committee to change fixed and variable compensation for the employment duties of each executive.

The Group currently has no variable or extraordinary compensation other than what is described above.

Breakdown of compensation and benefits in kind of each Executive Director
Table No. 1, which summarizes the compensation, options and free shares allotted to each Executive Director, is presented in Section 15.1 of this document.

Table summarizing the compensation and benefits in kind of each Executive Director
Table No. 2, which summarizes the compensation of each Executive Director, is presented in Section 15.1 of this document.

Summary table on employment contracts, specific retirement plans, departure benefits and non-compete clauses for each Executive Director
This table is also presented in Section 15.1.

16.4.4.2. COMPENSATION OF MEMBERS OF THE BOARD OF DIRECTORS

The compensation of the Chairman of the Board of Directors is set by the Board of Directors on the basis of recommendations from the Compensation Committee. (See Table no. 3 in Section 15.1).

The Company has implemented a compensation policy based on the attendance of independent members of the Board of Directors. This means compensation based on the level of attendance, as well as the form of attendance at each Board meeting, with 100% of the directors' attendance fees being paid for attending in person and 50% for attending by video or teleconferencing and none if absent.

The Annual Shareholders' Meeting of May 28, 2018 decided to set the maximum amount of directors' attendance fees allocated to members of the Board of Directors at €200,000 for periods beginning on or after January 1, 2018, it being noted that the Board of Directors will determine how this sum is divided among its members (on the basis of €2,500 per member attending each meeting).
The Annual Shareholders' Meeting of May 28, 2018 approved the principles and criteria for determining, dividing and allocating the fixed, variable and extraordinary components of the total compensation and benefits of all kinds, attributable to members of the Board of Directors by reason of their office.

16.4.4.3. RETIREMENT AND OTHER BENEFITS

16.4.4.3.1. ITEMS OF COMPENSATION, INDEMNITIES OR BENEFITS DUE OR LIKELY TO BE DUE AS A RESULT OF THE ASSUMPTION, TERMINATION OR CHANGE IN FUNCTIONS OF A CORPORATE OFFICER

The only items of compensation, indemnities or benefits due or likely to be due as a result of the assumption, termination or change in functions of corporate officers are described below; the Company has not provided for them elsewhere.

The Chief Executive Officer will receive a severance benefit if her position is terminated, subject to performance conditions. The maximum amount corresponds to 12 months' gross compensation (fixed and variable), i.e. €400,000 if all targets have been met. The benefit will not be due in the event of dismissal for gross negligence or willful misconduct (as these terms are construed in the case law of the labor division of the Court of Cassation), resignation or where the Chief Executive Officer exercises her right to retire.
The performance conditions used to calculate the severance benefit are as follows:
Performance conditions:
The benefit that may be payable to the Chief Executive Officer is thus subject to the following performance conditions:

Revenue criterion

This represents one third of the potential benefit. This benefit will be pro-rated between the 100 and 105 benchmarks. The 100 benchmark being established with reference to 2017 revenue, namely €24.7 million.

The severance benefit for termination of the corporate office would thus be allocated in full if the average revenue calculated over the twelve (12) months preceding the termination exceeds the 105 benchmark, namely revenue of €25.9 million.

However, if the average revenue calculated over the twelve (12) months preceding the termination is under the 100 benchmark, namely revenue of €24.7 million, the indemnity will not be payable.

Michèle Lesieur

Between the 100 and 105 benchmarks, the indemnity will be pro-rated between the €24.7 million floor and the €25.9 million ceiling.

EBITDA criterion

This represents one third of the potential benefit. This benefit will be pro-rated between the 100 and 105 benchmarks. The 100 benchmark being established with reference to 2017 EBITDA, namely -€6.6 million.

The severance benefit for termination of the corporate office would thus be allocated in full if the average EBITDA calculated over the twelve (12) months preceding the termination exceeds the 105 benchmark, namely revenue of -€6.2 million.

However, if the average EBITDA calculated over the twelve (12) months preceding the termination is under the 100 benchmark, namely revenue of -€6.6 million, the indemnity will not be payable.

Between the 100 and 105 benchmarks, the indemnity will be pro-rated between the -€6.6 million floor and the -€6.2 million ceiling.

Percentage margin criterion

This represents one third of the potential benefit. This benefit will be pro-rated between the 100 and 105 benchmarks. The 100 benchmark being established with reference to the 2017 average percentage margin (services and products), namely 44.9%.

The severance benefit for termination of the corporate office would thus be allocated in full if the average percentage margin calculated over the twelve (12) months preceding the termination exceeds the 105 benchmark, namely 47.1%.

However, if the average percentage margin calculated over the twelve (12) months preceding the termination is under the 100 benchmark, namely 44.9%, the indemnity will not be payable.

Between the 100 and 105 benchmarks, the indemnity will be pro-rated between the 44.9% floor and the 47.1% ceiling.

Performance measurement:
The performance conditions must be assessed by the Board of Directors at the end of each fiscal year on the basis of the aforementioned criteria. The twelve (12) most recent months taken into consideration will be the twelve (12) most recent months published prior to the event triggering the payment of said benefit.

16.4.4.3.2. OTHER BENEFITS

The Company has not granted any loans, advances or guarantees to its corporate officers.

16.4.4.3.3. ADDITIONAL RETIREMENT PLAN

No additional retirement plan was established within the Company, other than those corresponding to the standards in countries where the Group is established.

16.4.4.3.4. STOCK MARKET ETHICS CHARTER

An ethics charter was established within the Company in 2014, the year of its IPO.

Additional Information
A summary of the delegations of authority in effect granted by the Shareholders' Meeting with regard to capital increases, by application of Articles L.225-129-1 and L.225-129-2, can be found in Section 21.1.5 of this document. In 2018, the Board of Directors used the authority granted by the Combined Shareholders' Meeting of May 28, 2018 (resolutions 26 and 28).

Any shareholder may attend Shareholders' Meetings, which are governed by the rules set out in the Company's bylaws (Articles 31 to 40). Details of how to participate in Shareholders' Meetings are appended to this report.

All the information provided for in Article L-225-100 of the French Commercial Code that may have an impact in the event of a public offering, as per Article L. 225-100-3 of the French Commercial Code, is included in the Board of Directors' management report.

16.4.5. Internal control and risk management procedures

16.4.5.1. PROCEDURES INHERENT IN PREPARING THE DESCRIPTION OF INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES

The description of internal control and risk management procedures was prepared based on the contributions (interviews and document review) of the main operational managers of the Group, which were coordinated by the financial administration.

16.4.5.2. INTERNAL CONTROL GUIDELINES USED BY THE GROUP

The description of the internal control and risk management procedures is based on the reference framework published by the French Financial Markets Authority (Autorité des marchés financiers) on July 22, 2010 regarding the risk management and internal control mechanisms for small-caps and mid-caps.
This model constitutes the guidelines for Group control.
In conformity with the AMF's definition, internal control is a Group mechanism, which is defined and implemented under its responsibility. It seeks to ensure compliance with the laws and regulations, the application of the instructions and guidelines set by the senior management, the proper functioning of the Group's internal processes, in particular those contributing to the safeguarding of its assets, and the reliability of the financial information. More generally, it contributes to the control of the Group's activities, the effectiveness of its operations and the efficient use of its resources.
The internal control mechanism must provide for:

- A structure that contains a clear definition of the responsibilities, having adequate resources and skills and relying on information systems, procedures or appropriate operating methods, tools and practices;
- A risk management mechanism designed to identify, analyze and handle the main risks identified with regard to the Group's objectives;
- Control activities that are proportionate to the specific challenges of each process, which are designed to reduce the risks likely to impact achievement of the Group's objectives;
- The internal dissemination of pertinent, reliable information that would allow each person to perform his/her responsibilities;
- Ongoing monitoring of the internal control mechanism as well as a regular examination of its functioning.

As with any control system, internal control provides reasonable and not absolute assurance that the entity's objectives will be met. Among the limits inherent to it, internal control cannot prevent erroneous or poor decisions from being made, nor can it prevent external events that could create obstacles to the achievement of operational objectives.

16.4.5.3. SCOPE OF THE GROUP'S INTERNAL CONTROL

The Group's internal control mechanism covers the parent company and all subsidiaries of the Group.

16.4.5.4. GENERAL ORGANIZATION OF INTERNAL CONTROL AND RISK MANAGEMENT

16.4.5.4.1. CONTROL ENVIRONMENT

The Group's control environment is based on a set of mechanisms which rely on both management's commitment and on a culture of internal control at all levels of responsibility. The Group's internal control environment also relies on the Group's key documents and mechanisms, which structure the functioning of critical processes and which are imposed on all employees:

- The Group's ethics rules, which include commitments towards customers, employees and shareholders, and clarify Management's philosophy and the principles on which its actions are based;
- Rules which are common to all of the Group's companies, which have been enacted by the Board of Directors, knowing that in the majority of cases, the Group chooses to centralize powers and contractual relationships within the parent company. These rules specify the provisions that apply to the parent company and its subsidiaries, notably in the following subject areas:
  - Terms and conditions of management compensation;
  - Delegations of power in the purchasing process;
  - Investments;
  - More generally, the high level of monitoring of the Board of Directors in the Group's daily operations.

HR Policy/Management of jobs and skills

The organization, distribution of roles and responsibilities, and the assessment of abilities rely on a function sheet for each position which is periodically updated, annual assessments including the determination of objectives for the upcoming year, and a definition of training needs and demands.

Given its size and the geographic location of the activities, the Group has no mobility policy as such, but privileges internal mobility by systematically proposing all new positions to the Group's employees as a priority.

Staff management is included in the budgetary process and any increase in staff must be approved in December of the year preceding the year of hiring, when the budget is validated.

In the event of an urgent need, new hires must also be approved and undergo a specific process, including operational and budgetary plans, as well as the use of a dedicated form covering all data related to the recruited person (including his/her analytical assignment and position in the organizational chart, etc.).

Ethics and rules of professional conduct

The Group's employees must conduct their professional activities in accordance with the following business values:

- Technological innovation
- Respect for individuals, guarding against any form of discrimination or harassment
- Teamwork

These values are documented in the Group's Charter, which includes a Code of Conduct and a Code on Interactions with Health Professionals as well as an IT charter.

These regulations establish the general principles and other rules which apply to employees of a company, and to any person intervening in and/or within the context of the company (i) in terms of discipline and ethics and (ii) in terms of hygiene and safety. These regulations are communicated to all Group employees and are read and approved by them.

Lastly, in order to reaffirm the Group's commitment in the fight against corruption (a subject which has been covered in the recent regulatory provisions for companies in the medical sector, under the Sunshine Act, anti-Bribery Act), the Audit Committee has likewise approved an Anti-Corruption Charter which is applied in addition to the Code of Conduct. From this perspective, the Group has also inserted a dedicated clause and a questionnaire in all of its contracts with distributors.

16.4.5.4.2. RISK MANAGEMENT MECHANISM

A description of the main areas of risks that could be faced by the Group appears in the chapter on risk factors of the Registration Document.

The Group has established a risk management mechanism designed to identify, evaluate, rank and handle the major risks to which the Group is exposed. This mechanism incorporates the establishment of coverage plans, control points or follow-up measures, in line with the Group's strategy and objectives.

Implemented by operational staff, led by the Chief Executive Officer and monitored by the Board of Directors and its Audit Committee, the risk management mechanism is a key element of the Group's internal control mechanism.

In this context, the risk management process is based on the establishment of a risk mapping and the monitoring of the corresponding action plans at the Group level.

The Group's risk mapping was completed in 2014 by the Financial Management and involved the main operational managers. The Finance Department conducted a series of individual interviews with the Group's key management personnel to identify the risks they are exposed to within their area of responsibility. The Finance Department then produced a summary of the main risks, specifying their definition, probability of occurrence, impact (financial, human, legal or reputational) and degree of control. The managers concerned will be tasked with establishing adapted action plans according to the main risks that have been identified. Risk mapping is being prepared and will be presented to the Audit Committee.

The risk mapping will be updated periodically and monitored regularly by the Audit Committee to make sure that the control actions initiated by senior management are tracked, ensuring that the Group's risks are effectively managed.

16.4.5.4.3. CONTROL ACTIVITIES

The control activities established by the Group have the following objectives:

- To ensure that the activity of the parent company and its subsidiaries falls within the framework defined by the applicable laws and regulations, the guidelines provided by the Chief Executive Officer and the Board of Directors, and the internal rules and commitments of the Company;
- To prevent and control the risks incurred by the Group, not only in the areas of accounting and finance, but also in operational domains, to protect and preserve its activities, and more generally the Group's assets;
- To produce as quickly as possible accounting, financial and management information that is reliable and conforms to the applicable standards and regulations;
- The structure of the internal control mechanism, for which the Chairman of the Board of Directors is responsible, is marked by a set of rules, procedures and tools that cover the Group's major processes and allow it to control operational risks.

Quality system

The Group is subject to a great number of standards and regulations worldwide, and primarily the two that are described below:

- ISO 13485 (applicable in Europe and Canada in particular) and Quality System Regulations 21CFR820 (applicable in the United States) governing quality management relating to medical devices as a whole. The major principles of these standards are the establishment of procedures that ensure the ongoing improvement of processes and customer satisfaction;
- ISO 14971, applicable to activities involving medical devices and concerning the management of design risks;
- ISO 14001, validating and affirming the Company's environmental approach.

Within this context, the Quality/Regulatory Department is in charge of regulatory oversight specific to the Group's sector of activity, and of compliance of the processes and products with European requirements, the requirements of the FDA and those of all other countries in which the Group is authorized to sell the ultrasound system. The Quality/Regulatory Department identifies and evaluates the risks of noncompliance according to a level of criticality defined by the Regulatory Affairs Department, based on the model for tracking frequency, severity and detectability. The scope concerns all stages of a product's life cycle: development, design, production (efficiency of production processes, supplier audit, etc.) and service (updating, repair and maintenance).

Security of information systems

In order to ensure good resilience for computer system failures, the Group is equipped with a high-availability infrastructure (if one server fails, another takes over instantaneously). Moreover, the entire server infrastructure is backed up each night, and then periodically outsourced to a recognized player in data storage and archiving.
The Group also has next-generation firewalls allowing it to secure data and monitor access to it.

Purchase process

In early 2015, the Group had established a workflow to approve supplier invoices through a dedicated software program. Each person involved in the purchase process is assigned a role and limited amounts for validating invoices.
In order to be paid, every invoice must follow the procedure defined by the Group, this control having been automatized through this software. In order to better monitor purchases, all of the invoices under the responsibility of a single person are computerized and archived, including the associated EDM

(Electronic Data Management), and may be consulted by this person using the advanced search criteria.

Monthly Reporting
A report is drafted monthly, focusing on both finance and on the Group's operational data. It presents a very fine level of analytical detail that allows the financial indicators to be followed by geographical segment, operational department and sub-department. Once this report is complete, the expenses incurred are monitored in comparison to the expenses budgeted and sent to each budgetary manager. All of this information allows proper control of costs and expenses to be guaranteed, according to all of the cornerstones that Management has deemed to be pertinent.

Regulatory oversight relating to the sale of equipment
The Group is subject to a set of local regulations, relating to the authorization to market the equipment sold. In an effort to prevent any regulatory violations that could notably affect the revenue and competitive position of the Group, the Regulatory Affairs Department has established a database, that is regularly updated and that centralizes all of the regulations which are applicable to the various markets used by the Group's subsidiaries.

16.4.5.4.4. INFORMATION AND COMMUNICATION

In order to collect and disseminate pertinent information that allows each person to assume his/her responsibilities, the Group relies on the following primary mechanisms:

- A quarterly general meeting where the Chief Executive Officer presents significant events in the period. Department managers regularly present their activities and short- and medium-term challenges, so that each person's technical and human concerns may be shared, along with emerging risks, presentations on compliance and other best practices. Staff representatives also take the floor in order to bring up any issues relating to human resources management or working conditions.
- Multi-year training programs that are regularly enhanced and updated, and are open to all employees, on all operating subjects, such as the major innovations of the Aixplorer® (Elastography, ShearWave, etc.) and the key research and development elements underpinning the development of new products, so that each employee understands the production and logistical constraints, as well as the safety and professional risk prevention rules.
- Document database that can be consulted by all employees, allowing them to share key information relating to the quality system and product design. This database includes, for example, the supplier forms that must be filled out when selecting a new provider, existing written procedures such as the purchasing procedure, or even the price list.
- A Group intranet, allowing all employees quick access to a large amount of practical information, such as professional tools and documents, a presentation of the Company and organizational charts. The aim of the intranet is notably to promote information sharing between the various departments and facilitate the integration of new people within the Group.

16.4.5.4.5. MANAGEMENT OF INTERNAL CONTROL

Internal control is managed at all levels of the Group. The role of the main players is presented below.

The Board of Directors and Audit Committee
The Board of Directors and Audit Committee ensure that the Group's internal control policy is implemented.

In particular, the tasks of the Group's Audit Committee include monitoring the effectiveness of internal control and risk management systems.

To that end, the Group's Audit Committee regularly examines the risk portfolio. Furthermore, the Audit Committee provides its opinion about the organization of the internal control mechanism, takes note of the recommendations for improving internal accounting and financial control, which may be made by the Statutory Auditors, and may consult with any operational manager of the Group to assess the points of control in place within the various processes of the Group.

Senior management
Senior management ensures that the Group's internal control policy is effectively implemented, through:

- Management and follow-up of internal control work performed in the Group as a whole, and in particular the monitoring of the action plans identified. Presentations on internal control may be submitted to the senior management upon request from operational staff or at the initiative of the Finance Department.
- Review of the updating of the risk portfolio.
- In accordance with the internal control procedures, the senior management examines and authorizes major projects concerning:
- Strategic decisions related to the production process,
- Creation of a partnership with any new strategic supplier,
- Negotiation of contracts related to the Company's intellectual property,
- Creation of a subsidiary.

Functional and operational departments of the Group
In conformity with the Group's internal control policy, internal control falls under the direct responsibility of each functional and operational department of the Group. Given its current size, control of the various actions for improving internal control, notably performed using a risk portfolio, is led by the Finance Department and overseen by senior management.

16.4.5.5. INTERNAL CONTROL PROCEDURES RELATING TO THE PREPARATION AND PROCESSING OF FINANCIAL AND ACCOUNTING INFORMATION

16.4.5.5.1. KEY PROCESSES IMPACTING THE RELIABILITY OF THE GROUP'S FINANCIAL INFORMATION

The main points of internal control established in the processes that have a direct impact on the production of financial information are as follows:

Production of monthly reports
Communicated to all members of the Audit Committee and Board of Directors, the monthly reports may be reviewed and questions asked. These reports primarily include:

- A sales breakdown for the period elapsed, by geographic segment;
- The balance sheet, income statement and cash flow statement of the consolidated financial statements, as well as the income statements presented by geographic segment and by department, which are presented in comparison to the budget for the current year;
- Detailed comments on:
  - Significant events during the period;
  - All items presenting discrepancies deemed significant;
  - Changes in staff;
  - Changes in trade receivables, inventory and working capital requirement.

Every month, the income statement from each department or sub-department is communicated to the supervisor concerned, presenting the income and expenses for the year, in comparison with the budget that was established for the same period.

Management of disbursements
The Group has established a paperless invoice management system, with four levels of people authorized to have invoices paid. Each level of approval has a maximum amount, beyond which it will be necessary to get the approval of a person from a higher level.

Management of cash inflows and customer risk
The entire process of cash inflow and customer risk is covered through close and ongoing interactions between the sales administration and the finance team. The export customer risk is primarily handled through COFACE hedges or letters of credit.
When new customers or distributors are incorporated, the Company may be forced to conduct a credit analysis in order to grant payment conditions that are in line with the financial positions of these customers or distributors.
Lastly, the Finance Department conducts a weekly review of trade receivables in order to track down third parties in arrears by phone or by e-mail.

16.4.5.5.2. KEY POINTS OF THE INTERNAL CONTROL SYSTEM FOR PRODUCTION OF THE FINANCIAL INFORMATION PUBLISHED

Internal control related to the production of financial information is organized around five cornerstones:

- Budgetary process
- Production of financial information of each of the Group's companies
- Production of consolidated information
- Production of monthly reports
- Statutory Auditors

Budgetary process

The Group's budget is established for one year and is determined by department, sub-department, and geographic segment, for each month of the year.

The budget consists of an income statement, balance sheet, cash flow statement, payroll, forecasts of supplier orders, as well as an investment plan.

The budgetary process is assigned to the Chief Financial Officer and consists of the following stages:

- In September, the schedule for the budgetary process is presented to the Board of Directors, and then communicated to all of the Group's budgetary managers;
- In October, each budgetary manager sends his/her proposal to the Chief Financial Officer to be reviewed and consolidated;
- In November, the consolidated budget is reviewed by senior management, which entails preparing several drafts with the budgetary managers, until the final version is approved;
- The Administrative and Financial Director presents his/her draft budget to the Budgetary Committee, which is composed of all members of the senior management and two members of the Board of Directors;
- In December, the budget is presented to the Board of Directors for approval.

Production of financial information of each of the Group's companies

All of the accounting and financial information of the Group is produced by a team of seven people, including a Chief Financial Officer, and under the responsibility of the Administrative and Financial Director.

The Group has a centralized and internalized shared services center based in Aix-en-Provence, which handles all of the Group's accounting and administrative operations (for the French parent company and the five subsidiaries, as well as the Chinese representative office). Only the German subsidiary produces its accounting information with the assistance of a local public accountant.

For payroll, taxes and other issues specific to the countries in which the Group is established, the central accounting team works in close connection with as many local offices as there are subsidiaries outside of France (in the United States, UK, Italy, and China – Hong Kong for the subsidiary and Shanghai for the representative office).

Lastly, the payroll of the French parent company is outsourced to a specialized firm.

The statutory financial statements of the French parent company are reviewed and presented by a public accountant.

The accounting for all of the Group's subsidiaries is completed using a single accounting software program.

Year-end operations follow a list of instructions that is determined and updated monthly according to the activity for the period that has elapsed. This list assigns each task to a member of the accounting team, while planning a back-up solution ("cross-training") for the critical phases of this process.

Production of consolidated information

Consolidation is likewise carried out internally, under the authority of the consolidation manager, applying IFRS and using dedicated accounting software.

In an effort to optimize the time frames for producing financial information, as well as the reliability of the chain of production of this information, the accounting data for the Group's companies is directly imported into the consolidation software. The latter also integrates the budgetary data and automatic data extraction tools.

Each month, an analysis of the events of the period is performed in view of presenting a proper interpretation in the consolidated financial statements, in conformity with IFRS. In case of a complex problem, these interpretations are discussed and approved upstream with the Group's Statutory Auditors.

Production of monthly reports

The monthly reports are produced in cooperation with the Company's various managers (such as the Human Resources Manager, the Supply Chain Manager, and any other person depending on the situation during the period) and are centralized by the Consolidation Manager.

Before being disseminated to the Audit Committee and the Board of Directors, the monthly report is reviewed by senior management.

This monthly report is sent to the Audit Committee and the Board of Directors within 10 business days.

Statutory Auditors

In conformity with the regulations, the financial statements are certified by the Board of Auditors.

Moreover, the duties of the Statutory Auditors include conducting a review of internal accounting and financial controls and making any useful recommendations for improving effectiveness.

17. EMPLOYEES

17.1. HUMAN RESOURCES

17.1.1. Operational organizational chart at the date of registration of this document

The Group's operational organizational chart is presented in Section 6.8 of this Registration Document.

17.1.2. Number and breakdown of employees

Staff at Closing	Dec. 31, 18	Dec. 31, 17
Research/Development	45	45
Engineering/Production/Quality assurance/After-Sales Service	39	41
Marketing/Commercial duties	74	70
Management, administration	21	16
Total	172	172
Of which, per country:		
France	118	109
USA	9	12
Germany	2	2
UK	1	2
Italy	1	1
Hong Kong, Singapore	3	3
China	46	43
Total	179	172

As of December 31, 2018, the Group had a total of 179 employees worldwide, versus 172 at December 31, 2017, excluding vocational training contracts and temporary workers.

17.1.3. Employee representation

The Single Staff Delegation (SSD) was most recently **reappointed** on **March 14, 2017**. At the same time, this employee representative body was converted from an SSD to an **expanded SSD** with the **incorporation of the Health, Safety and Working Conditions Committee (Comité d'Hygiène, de Sécurité et des Conditions de Travail – CHSCT)**.
At the end of 2018, it was composed of four permanent members and four substitute members.

The Company believes that it has a good relationship with the staff representatives and its employees.

17.2. FINANCIAL INSTRUMENTS GIVING ACCESS TO THE COMPANY'S SHARE CAPITAL GRANTED TO THE TEN MOST HIGHLY COMPENSATED EMPLOYEES WHO ARE NOT EXECUTIVE DIRECTORS AND OPTIONS EXERCISED BY THOSE LATTER

	Date of the Shareholders' Meeting	Date of Management Board/Board of Directors' meeting	Number of rights granted to the ten Group employees who are not Executive Directors with the highest number of rights (total number)	Number of rights exercised/acquired/vested by the Group's ten non-Executive Director employees with the highest number of rights (total number)
2018				
Free shares	5/15/2017	4/26/2018	75,000	30,000 free shares under the 2017 plan
Warrants (BSA)	None	None	None	
Founders warrants (BSPCE)	None	None	None	-
Stock options	None	None	None	308 2013 ordinary options
2017				
Free shares	6/24/2016	3/31/2017	150,000	
Warrants (BSA)	None	None	None	
Founders warrants (BSPCE)	None	None	None	-
Stock options	None	None	None	5,817 2013 ordinary options

17.3. INVESTMENTS, WARRANTS, FOUNDERS' WARRANTS, OPTIONS AND FREE SHARES ALLOCATED TO CORPORATE OFFICERS

At the date of this Registration Document, the direct and indirect interest of corporate officers, as well as the number of Company equity-linked rights or securities held by them was as follows:

	Number of shares held as at December 31, 2018	Securities giving access to the share capital		Total	% capital and voting rights	
		Number and type of securities allocated (1)	Number of shares likely to result from their exercise (1)		Total held to date	Total fully diluted
Michèle Lesieur	60,000	Balance of 240,000 free performance shares (300,000 shares awarded in total, of which 60,000 had vested as at March 31, 2018)	240,000	300,000	0.25%	1.07%

	Number of shares held as at December 31, 2018	Securities giving access to the share capital		Total	% capital and voting rights	
		Number and type of securities allocated (1)	Number of shares likely to result from their exercise (1)		Total held to date	Total fully diluted
Members of the Board of Directors						
Michael Brock	-	100,000 warrants	100,000	100,000	-	0.36%
Bpifrance Investissement	6,180,106		0	6,180,106	26.39%	22.17%
Mérieux Participations	1,064,873		0	1,064,873	4.55%	3.82%
Guy Frija	-		-	-		
Danièle Guyot-Caparros	-		-	-		
Ghislaine Gueden	-		-	-		

(1) A detailed breakdown of these securities and rights appears in Section 21.1.4 "Securities entitling their holders to a share in the capital" of this document.

17.4. PARTICIPATION OF EMPLOYEES IN THE COMPANY'S SHARE CAPITAL

As of the registration date of this Registration Document, the Company's employees (excluding corporate officers who have an employment contract) held 1.38% of the Company's share capital.

17.5. INCENTIVE AND PROFIT-SHARING AGREEMENTS

In 2014, SuperSonic Imagine established a profit-sharing incentive agreement for employees to benefit from the Group's results, for a period of three years, covering 2015, 2016 and 2017.

The chosen calculation methods were based on a desire to have all employees share in the Company's key objectives. The chosen objectives based on (i) improving operating income and (ii) increasing Company revenue were selected because each employee can have an influence on these parameters through his/her actions, decisions and involvement in the performance of the company.

The employee profit-sharing agreement was not renewed since a free share plan was put in place for all employees in March 2017.

18. MAJOR SHAREHOLDERS

18.1. BREAKDOWN OF CAPITAL AND VOTING RIGHTS

The shareholding table below presents a breakdown of the Company's share capital and voting rights, on an undiluted basis:

	At Dec. 31, 2018				*At Dec. 31, 2017*			
	Number of shares	% of the capital	*Number of voting rights*	% voting rights	*Number of shares*	% of the capital	Number of voting rights	*% voting rights*
Management and employees	**350,930**	**1.5%**	**350,930**	**1.5%**	**200,980**	**0.9%**	**200,980**	**0.9%**
EPIC Bpifrance / CDC Group[(a)]	6,180,106	26.4%	6,180,106	26.5%	6,180,106	26.6%	6,180,106	26.7%
ANDERA PARTNERS (formerly EDRIP)	2,161,100	9.2%	2,161,100	9.3%	2,170,224	9.4%	2,170,224	9.4%
Auriga Partners	1,633,195	7.0%	1,633,195	7.0%	1,633,195	7.0%	1,633,195	7.1%
Omnes Capital	413,854	1.8%	413,854	1.8%	413,854	1.8%	413,854	1.8%
NBGI Private Equity	664,333	2.8%	664,333	2.9%	905,910	3.9%	905,910	3.9%
Mérieux participations	1,064,873	4.5%	1,064,873	4.6%	1,064,873	4.6%	1,064,873	4.6%
Major Financial Investors	**12,117,461**	**51.7%**	**12,117,461**	**52.0%**	**12,368,162**	**53.3%**	**12,368,162**	**53.5%**
Others	**10,837,613**	**46.3%**	**10,837,613**	**46.5%**	**10,554,811**	**45.5%**	**10,554,811**	**45.6%**
Treasury shares	**110,931**	**0.5%**	**-**	**0.0%**	**85,174**	**0.4%**	**-**	**0.0%**
Total	**23,416,935**	**100.0%**	**23,306,004**	**100.0%**	**23,209,127**	**100.0%**	**23,123,953**	**100.0%**

(a) Bpifrance SA, which owns Bpifrance Participations SA, which in turn owns Bpifrance Investissement SAS, is jointly owned by EPIC Bpifrance and Caisse des Dépôts et Consignations (CDC). Accordingly, the securities held by Bpifrance Participations and the funds managed and/or advised by Bpifrance Investissement are fully assimilated by EPIC Bpifrance and the CDC, and their respective positions break down as follows:

	EPIC Bpifrance		CDC Group	
	Number of shares	% of the capital	Number of shares	% of the capital
Bpifrance Investissements	2,589,476	11.16%	2,589,476	11.16%
Bpifrance participations	2,773,221	11.95%	2,773,221	11.95%
CDC EVM	-	-	817,409	3.52%
Consolidated position	5,362,697	23.11%	6,180,106	26.63%

At the date of this document, there was no significant change in the distribution of shareholders.

18.2. Voting Rights of the Major Shareholders

At the date of registration of this document, the voting rights of each shareholder were the same as the number of shares held by each of them. No double voting right has been established and the Company has no intention of granting one.

18.3. Control of the Company

At the date of registration of this document, no shareholder controls the Company pursuant to Article L. 233-3 of the French Commercial Code. Consequently, the Company has not established measures to guard against abuse of such control.

To the best of the Company's knowledge, there is no concerted shareholder action or agreement that could lead to a change of control, it being noted that the agreement signed by the Company's major shareholders on March 10, 2006 as amended became automatically null and void following the Company's IPO in April 2014.

18.4. Pledges of company shares

To the best of the Company's knowledge, none of its shares were pledged by any of its shareholders.

18.5. Stock Information

Since April 10, 2014, the Company has been listed on the Euronext regulated market in Paris. Shares are admitted for trading on Compartment C under ISIN code FR0010526814 and the mnemonic SSI.

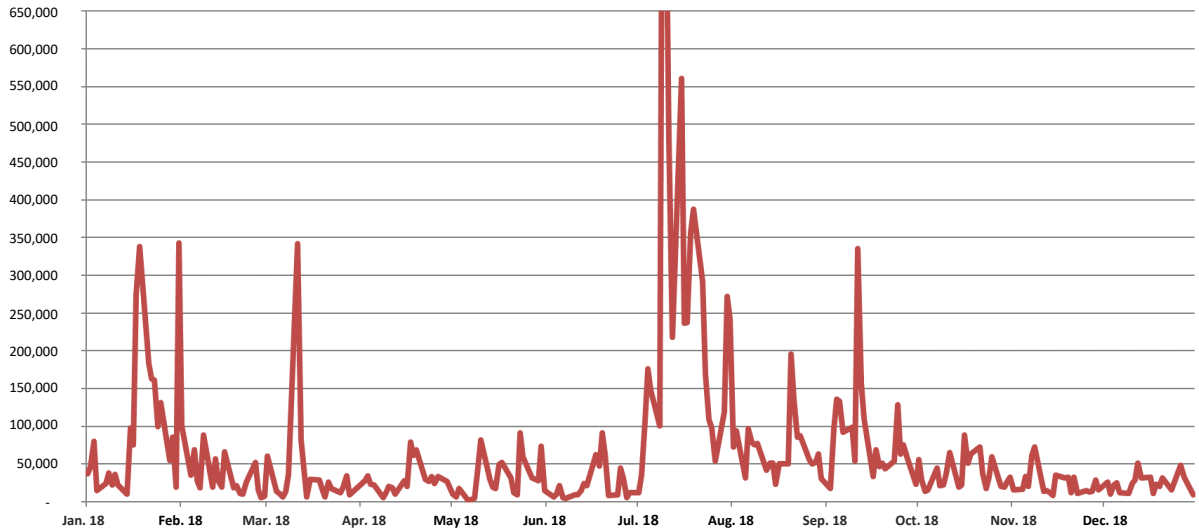
On December 31, 2018, the share price was €1.36, representing a market capitalization of €31.8 million, compared with a share price of €1.88 and a market capitalization of €43.6 million on December 31, 2017. There was a high of €2.45 and a low of €1.18 during the 2018 fiscal year.

The information concerning the stock values and trades is broken down as follows:

	Average price	Average number of shares traded per day
January 2018	1.98	91,735.77
February 2018	1.94	51,789.20
March 2018	1.73	39,336.95
April 2018	1.69	30,475.10
May 2018	1.72	31,815.41
June 2018	1.66	24,812.76
July 2018	2.15	283,793.95
August 2018	2.10	78,135.82
September 2018	1.91	93,049.25
October 2018	1.65	37,501.87
November 2018	1.54	25,004.45
December 2018	1.38	24,813.21
2018	**1.79**	**68,379**

During the period, the stock price varied as follows:

The number of shares traded changed, as follows:



19. RELATED-PARTY TRANSACTIONS

19.1. INTRA-GROUP AGREEMENTS

Intra-group agreements are described in Section 7.3 of this document.

19.2. RELATED-PARTY TRANSACTIONS

Related-party transactions are described in Note 40 to the consolidated financial statements, which appear in Section 20.1 "Consolidated Financial Statements prepared under IFRS for the fiscal year ended December 31, 2018" of this document.

Agreements and commitments approved during prior fiscal years

1. With Michèle Lesieur, Chief Executive Officer

Nature and purpose

Michèle Lesieur was Chairwoman of the Company from November 23, 2016 until May 28, 2018. She has been Chief Executive Officer of the Company since May 28, 2018.

Conditions

With respect to her office, the Supervisory Board awarded her fixed gross annual compensation of €275,000, in addition to variable compensation of up to €125,000, subject to achieving the targets set annually by the Board of Directors on the recommendation of the Compensation Committee. She is also entitled to a severance benefit subject to performance conditions (criterion based on revenue, EBITDA and profit margin) defined by the Supervisory Board in accordance with Article L.225-90-1 of the French Commercial Code, subject to a maximum of 12 months' gross compensation (fixed and variable), i.e. €400,000, assuming all targets are met.

In the fiscal year ended December 31, 2018, the total gross compensation paid to Michèle Lesieur with respect to her office was €275,000, with a variable portion of €96,548 paid in 2018 but earned in 2017.

2. With Elisabeth Winter

Nature and purpose

Since November 26, 2012, Elisabeth Winter has had a permanent employment contract in her capacity as Chief Financial Officer. Elisabeth Winter was a member of the Company's Management Board from June 21, 2016 until May 28, 2018. Elisabeth Winter was not compensated for her membership of the Management Board.

Conditions

Under her employment contract, her compensation includes a gross annual fixed salary of €100,000 combined with a variable portion of at most 50% of this gross salary, paid according to pre-set objectives that must be attained.
In the fiscal year ended December 31, 2018, the total gross compensation paid to Elisabeth Winter under this employment contract was €148,901.00, with a variable portion of €64,774 paid in 2018 but earned in 2017.

This employment contract includes a non-compete clause, which applies for a term of twelve (12) months from expiration of the employee notice period, and covers the European Union, the United

States and China. In consideration for her non-compete obligation, Elisabeth Winter would collect for twelve (12) months a gross monthly indemnity equal to 5/10ths the monthly average compensation collected during the last twelve (12) months, which would be raised to 6/10ths in the event of a termination that was not due to gross negligence.

3. With Jacques Souquet

Nature and purpose

Since April 1, 2015, Jacques Souquet has had a permanent employment contract in his capacity as Director of Strategy and Innovation. Jacques Souquet was a member of the Company's Management Board from March 12, 2005 until May 28, 2018. Jacques Souquet is not paid for his duties as a member of the Management Board.

Conditions

Under his employment contract, his compensation includes a gross annual fixed salary of €220,000 combined with a variable portion of at most 50% of this gross salary, paid according to pre-set objectives that must be attained.
During the fiscal year ended December 31, 2018, the total gross compensation paid to Jacques Souquet under this employment contract was set at €219,999.96. €73,961 in variable compensation is due for fiscal year 2018, paid in 2018 but earned in 2017.
This employment contract includes a non-compete clause, which applies for a term of twelve (12) months from expiration of the employee notice period, and covers the European Union, the United States and China. In consideration for his non-compete obligation, Jacques Souquet would receive for twelve (12) months a gross monthly indemnity equal to 5/10ths of the average monthly compensation received during the previous twelve (12) months, which would be raised to 6/10ths in the event of a termination that was not due to gross negligence.

4. With Kurt Kelln

Nature and purpose

Kurt Kelln entered into an employment contract under U.S. law with the Company's U.S. subsidiary SuperSonic Imagine Inc. relating to his managerial functions for global and U.S. sales activity signed on May 22, 2012. Kurt Kelln was a member of the Company's Management Board from April 19, 2012 until May 28, 2018.

Conditions

Under his contract entered into with the Company's U.S. subsidiary SuperSonic Imagine Inc., his compensation includes a gross annual fixed salary of GBP 168,000 combined with a variable portion totaling a maximum of 50% of this gross salary, paid according to pre-set objectives that must be attained. Kurt Kelln is not paid for his duties as a member of the Management Board.
During the fiscal year ended December 31, 2017, Kurt Kelln's total gross compensation was USD 222,690. This compensation was paid to him by the subsidiary SuperSonic Imagine Inc. and was rebilled to the Company. USD 74,360 in variable compensation is due for fiscal year 2017, paid in 2018 but earned in 2017.

19.3. STATUTORY AUDITORS' REPORTS ON THE RELATED-PARTY AGREEMENTS AND

COMMITMENTS ENTERED INTO DURING THE FISCAL YEAR ENDED DECEMBER 31, 2018

SuperSonic Imagine
Shareholders' Meeting to approve the financial statements for the fiscal year ended December 31, 2018

To the Shareholders' Meeting of SuperSonic Imagine,
In our capacity as Statutory Auditors of your company, we hereby report on certain regulated agreements and commitments.
We are required to inform you, on the basis of the information provided to us, of the characteristics, essential terms and conditions and rationale for the Company of the agreements and commitments of which we were advised, or that we may have identified in the performance of our engagement. We are not required to comment as to whether they are beneficial or appropriate or to ascertain the existence of any other agreements and commitments. It is your responsibility, pursuant to the provisions of Article R. 225-31 of the French Commercial Code, to evaluate the benefits resulting from these agreements and commitments prior to their approval.
In addition, we are required, where applicable, to inform you in accordance with Article R. 225-31 of the French Commercial Code of the implementation, during the year, of the agreements and commitments already approved by the Shareholders' Meeting.
We performed those procedures which we considered necessary to comply with professional guidance issued by the national auditing body (Compagnie Nationale des Commissaires aux Comptes) relating to this type of engagement. These procedures consisted of verifying that the information given to us is consistent with the relevant source documents.

Agreements and commitments submitted for approval by the Shareholders' Meeting

We hereby inform you that we were not notified of any agreement or commitment authorized and entered into during the past fiscal year to be submitted to the Shareholders' Meeting for approval pursuant to the provisions of Article L. 225-38 of the French Commercial Code.

Agreements and commitments already approved by the Shareholders' Meeting

■ Agreements and commitments approved during prior fiscal years

a) which continued to be performed during the year

Pursuant to Article R. 225-30 of the French Commercial Code, we were notified that the following agreements and commitments, approved by the Shareholders' Meeting in previous fiscal years, continued to be performed in the last fiscal year.

► With Elisabeth Winter, member of the Management Board until May 28, 2018

Nature and purpose

Since November 26, 2012, Elisabeth Winter has had a permanent employment contract in her capacity as Chief Financial Officer. Elisabeth Winter was a member of the Company's Management Board from June 21, 2016 until May 28, 2018. Elisabeth Winter has not been compensated for her membership of the Management Board.

Conditions

Under her employment contract, her compensation includes a gross annual fixed salary of €100,000, which may be revised annually.
In the fiscal year ended December 31, 2018, the total gross compensation paid to Elisabeth Winter under this employment contract was €148,901, with a variable portion of €64,774 paid in 2018 but earned in 2017.
This employment contract includes a non-compete clause, which applies for a term of twelve (12) months from expiration of the employee notice period, and covers the European Union, the United States and China. In consideration for her non-compete obligation, Elisabeth Winter would receive

for twelve (12) months a gross monthly indemnity equal to 5/10ths of the average monthly compensation received during the previous twelve (12) months, which would be raised to 6/10ths in the event of a termination that was not due to gross negligence.

► **With Jacques Souquet, member of the Management Board until May 28, 2018**

Nature and purpose

Since April 1, 2015, Jacques Souquet has had a permanent employment contract in his capacity as Director of Strategy and Innovation. Jacques Souquet was a member of the Company's Management Board from March 12, 2005 until May 28, 2018. Jacques Souquet is not paid for his duties as a member of the Management Board.

Conditions

Under his employment contract, his compensation includes a gross annual fixed salary of €220,000, with a variable portion of at most 50% of this gross salary, paid according to pre-set objectives that must be attained.
In the fiscal year ended December 31, 2018, the total gross compensation paid to Jacques Souquet under this employment contract was €219,999.96, with a variable portion of €73,961 paid in 2018 but earned in 2017.
This employment contract includes a non-compete clause, which applies for a term of twelve (12) months from expiration of the employee notice period, and covers the European Union, the United States and China. In consideration for his non-compete obligation, Jacques Souquet would receive for twelve (12) months a gross monthly indemnity equal to 5/10ths of the average monthly compensation received during the previous twelve (12) months, which would be raised to 6/10ths in the event of a termination that was not due to gross negligence.

► **With Kurt Kelln, member of the Management Board until May 28, 2018**

Nature and purpose

Kurt Kelln entered into an employment contract under United States law with the Company's U.S. subsidiary SuperSonic Imagine Inc., relating to his managerial functions for global and U.S. sales activity signed on May 22, 2012. Kurt Kelln was a member of the Company's Management Board from April 19, 2012 until May 28, 2018. Kurt Kelln is not paid for his duties as a member of the Management Board.

Conditions

Under his contract entered into with the Company's U.S. subsidiary SuperSonic Imagine Inc., his compensation includes a gross annual fixed salary of USD 160,000, with a variable portion of at most 50% of this gross salary, paid according to pre-set objectives that must be attained.
In the fiscal year ended December 31, 2018, the total gross compensation paid to Kurt Kelln was USD 222,690, with a variable portion of USD 74,360 paid in 2018 but earned in 2017. This compensation was paid to him by the subsidiary SuperSonic Imagine Inc. and was rebilled to the company.

b) which were not implemented during the year

In addition, we have been advised that the following agreements and commitments, which were approved by the Shareholders' Meeting in prior years, were not implemented during the year.

► **With Michèle Lesieur, Chief Executive Officer**

Nature and purpose

Michèle Lesieur was Chairwoman of the Company's Management Board from November 23, 2016 until May 28, 2018. She has been Chief Executive Officer of the Company since May 28, 2018.

Conditions

With respect to her office, the Supervisory Board awarded her a severance benefit subject to performance conditions (criterion based on revenue, EBITDA and profit margin) defined by the Supervisory Board in accordance with Article L. 225-90-1 of the French Commercial Code, with a maximum amount corresponding to 12 months' gross compensation (fixed and variable), i.e. €400,000, assuming all targets have been met.

Avignon and Montpellier, April 19, 2019

French original signed by the Statutory Auditors

ARESXPERT AUDIT	ERNST & YOUNG et Autres	
Johan Azalbert	Xavier Senent	Frédérique Doineau

20. FINANCIAL INFORMATION

The annual parent company and consolidated financial statements for the fiscal year ended December 31, 2017, as well as the corresponding audit reports, are incorporated by reference in this Registration Document, and appear on pages 256 to 297 and 197 to 254, and the reports on pages 299 to 312, of the Registration Document filed with the AMF on April 27, 2018.

The annual parent company and consolidated financial statements for the fiscal year ended December 31, 2016, as well as the corresponding audit reports, are incorporated by reference in this Registration Document, and appear on pages 230 to 259 and 178 to 229 of the Registration Document filed with the AMF under Authorization No. R.17-019, obtained April 24, 2017.

20.1. CONSOLIDATED FINANCIAL STATEMENTS PREPARED IN ACCORDANCE WITH IFRS FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

Consolidated income statement

In thousands of euros	Note	Dec. 31, 2018	Dec. 31, 2017[3]
Revenue	6	24,290	24,695
Other income	7	338	-
Revenue		**24,628**	**24,695**
Cost of sales	25	(13,530)	(13,608)
Gross margin		**11,098**	**11,088**
Gross margin on revenue [1]		**10,760**	**11,088**
Gross margin as a % of revenue [2]		***44.3%***	***44.9%***
Research and development expenses	26	(3,178)	(2,051)
Selling and marketing expenses	27	(11,685)	(11,732)
General and administrative expenses	28	(4,374)	(5,099)
Operating expenses	29	(1,497)	(1,791)
Other operating income/(expenses)	30	21	(294)
Current operating income (loss)		**(9,615)**	**(9,880)**
Other non-current operating income/(expenses)	31	(1,674)	-
Operating income (loss)		**(11,290)**	**(9,880)**
Financial income	34	16	6
Financial expenses	34	(1,960)	(2,410)
Financial income (loss)	**34**	**(1,944)**	**(2,405)**
Income (loss) before tax		**(13,234)**	**(12,285)**
Income tax expense	35	(61)	38
Net income (loss)		**(13,294)**	**(12,247)**
Attributable to:			
Equity holders of the parent company		(13,294)	(12,247)
Non-controlling interests		-	-
Earnings per share:			
Basic (in Euros)	36	(0.57)	(0.61)
Diluted (in Euros)	36	(0.57)	(0.61)

(1) Gross margin on revenue = Revenue – Cost of sales

(2) Percentage gross margin on revenue = Gross margin on revenue/Revenue

(3) Changes were made to the presentation of the income statement. As a result, the income statement presented above at December 31, 2017 differs from the one published at December 31, 2017. See details in Note 24.

Consolidated statement of comprehensive income

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Net income (loss)	**(13,294)**	**(12,247)**
Other comprehensive income (loss):		
Actuarial gains/(losses) on retirement benefit obligations	36	(4)
Tax effect on actuarial gains and losses	-	-
Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods	**36**	**(4)**
Currency translation differences	(23)	(477)
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods	**(23)**	**(477)**
Other comprehensive income (loss)	14	(481)
Total comprehensive income (loss)	(13,280)	(12,728)
Comprehensive income (loss) attributable to equity holders of the Company	(13,280)	(12,728)
Non-controlling interests	-	-
Total comprehensive income (loss)	**(13,280)**	**(12,728)**

Statement of financial position

Assets

In thousands of euros	Note	Dec. 31, 2018	Dec. 31, 2017
Intangible assets	8	16,049	14,158
Property, plant and equipment	9	4,865	4,443
Rights to use property, plant and equipment under leases	10	387	-
Other non-current assets	11	415	434
Total non-current assets		**21,716**	**19,035**
Inventories	12	6,664	5,037
Trade receivables	13	10,176	8,680
Other current assets	14	4,129	4,414
Cash and cash equivalents	15	8,593	19,017
Total current assets		**29,562**	**37,148**
Total assets		**51,278**	**56,183**

Liabilities and shareholders' equity

In thousands of euros	Note	Dec. 31, 2018	Dec. 31, 2017
Capital	16.1	2,342	2,321
Share premiums	16.1	19,365	29,551
Consolidated reserves	16.4	4,149	5,966
Non-controlling interests		-	-
Net income (loss) for the year		(13,294)	(12,247)
Total shareholders' equity		**12,562**	**25,591**
Financial debt – Long-term portion	18	15,043	11,294
Retirement obligations	19	529	481
Provisions and other non-current liabilities	20	1,081	907
Non-current lease liabilities	10	78	-
Total non-current liabilities		**16,731**	**12,682**
Financial debt – Short-term portion	18	9,832	7,034
Trade payables and related accounts	21	6,170	5,226
Provisions and other current liabilities	22	5,617	5,650
Current lease liabilities	10	366	-
Total current liabilities		**21,985**	**17,910**
Total liabilities		**38,716**	**30,592**
Total liabilities and shareholders' equity		**51,278**	**56,183**

Consolidated statement of changes in shareholders' equity

In thousands of euros	Attributable to equity holders of the Group					Non-controlling interests	Total shareholders' equity
	Share Capital	Share premiums	Currency translation reserves	Consolidated reserves and net income (loss) attributable to equity holders of the Group	Total		
At January 1, 2017	**1,627**	**59,006**	**(93)**	**(33,236)**	**27,305**		**27,305**
Actuarial gains/(losses) on retirement benefit obligations	-	-	-	(4)	**(4)**	-	**(4)**
Change in currency translation differences	-	-	(477)	-	**(477)**	-	**(477)**
Total, other comprehensive income (loss)	**-**	**-**	***(477)***	***(4)***	***(482)***	**-**	***(482)***
Net income (loss) for the period	-	-	-	(12,247)	**(12,247)**	-	**(12,247)**
Comprehensive income (loss)	**0**	**0**	**(477)**	**(12,251)**	**(12,728)**	**-**	**(12,728)**
Capital operations	694	10,814	-	-	**11,507**	-	**11,507**
Cost of capital transactions	-	(786)	-	-	**(786)**	-	**(786)**
Allocation of losses to the share premium	-	(39,483)	-	39,483	**-**	-	**-**
Change in treasury shares	-	-	-	(30)	**(30)**	-	**(30)**
Share-based payments	-	-	-	321	**321**	-	**321**
At December 31, 2017	**2,321**	**29,551**	**(570)**	**(5,712)**	**25,590**	**-**	**25,590**

In thousands of euros	Note	Attributable to equity holders of the Group					Non-controlling interests	Total shareholders' equity
		Share Capital	Share premiums	Currency translation reserves	Consolidated reserves and net income (loss) attributable to equity holders of the Group	Total		
At January 1, 2018		**2,321**	**29,551**	**(570)**	**(5,712)**	**25,590**	**0**	**25,590**
Actuarial gains/(losses) on retirement benefit obligations		-	-	-	36	**36**	-	**36**
Change in currency translation differences		-	-	(23)	-	**(23)**	-	**(23)**
Total, other comprehensive income (loss)		**-**	**-**	***(23)***	***36***	***14***	**-**	***14***
Net income (loss) for the period		-	-	-	(13,294)	**(13,294)**	-	**(13,294)**
Comprehensive income (loss)		**0**	**0**	**(23)**	**(13,257)**	**(13,280)**	**-**	**(13,280)**
Capital operations	16.1	21	(21)	**-**	31	**31**	-	**31**
Cost of capital transactions	16.1	**-**	28	-	-	**28**	-	**28**
Allocation of losses to the share premium	16.1	**-**	(10,192)	**-**	10,192	**-**	**-**	**-**
Cancellation of treasury shares	16.3	**-**	-	**-**	(31)	**(31)**	-	**(31)**
Share-based payments	17	**-**	-	**-**	224	**224**	**-**	**224**
At December 31, 2018		**2,342**	**19,365**	**(593)**	**(8,553)**	**12,562**	**-**	**12,562**

Consolidated cash flow statement

In thousands of euros	Notes	Dec. 31, 2018	Dec. 31, 2017
Net income (loss)		**(13,294)**	**(12,247)**
Elimination of items with no impact on cash			
Amortization and depreciations of assets	9/8/2010	3,170	2,556
Changes in the provisions for contingencies	19/22	(15)	186
(Income)/Expenses linked to share-based payments	17	224	321
(Income)/Interest expenses, net		1,960	2,004
Gain or loss on disposal of assets	9/8/2010	-	183
Income tax expense		61	(38)
Cash flow linked to operating activity, before changes in WCR		**(7,894)**	**(7,034)**
Inventories		(1,627)	45
Trade receivables		(1,495)	291
Other receivables		94	(52)
Tax credit for research and operating grants		(159)	(550)
Suppliers and other liabilities		1,058	2,627
Taxes on paid income		-	44
Changes in working capital requirements:		(2,130)	2,404
Net cash flow linked to operating activities		**(10,023)**	**(4,629)**
Investment operations:			
Acquisitions of property, plant and equipment	9	(947)	(3,717)
Acquisitions and production of intangible assets	8	(5,730)	(6,391)
Receipt of research tax credit allocated to capitalized R&D expenses		2,077	2,182
Proceeds from the disposal of property, plant and equipment and intangible assets		-	-
Receipt/Disbursement of financial assets	11	19	(53)
Net cash flows related to investment operations		**(4,581)**	**(7,979)**
Financing operations:			
Profit from transactions on share capital	16.1	31	11,507
Expenses related to capital increases	16.1	28	(786)
Payments with respect to rental liabilities	10	(394)	-
New financial debt	18	11,125	17,437
Repayment of financial debt	18	(5,046)	(7,679)
Interest disbursed		(1,496)	(1,597)
Acquisitions of treasury shares	16.3	(31)	(30)
Net cash flows related to financing operations		**4,217**	**18,853**
Changes in net cash flow		**(10,387)**	**6,244**
Cash and cash equivalents opening balance	15	19,017	11,250
Reclassification of Non-current assets as Cash		-	2,000
Impact of the change in exchange rate on cash		(38)	(477)
Cash and cash equivalents closing balance	**15**	**8,593**	**19,017**

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Notes to the consolidated financial statements

1. General Information

1.1. Presentation of the Group

The SuperSonic Imagine Group is specialized in research and development, as well as in the sale of ultrasound medical imaging systems.

In 2009, it put on the market a 3rd generation ultrasound device called Aixplorer®, with a radically new, entirely software-based architecture that integrates several technological innovations. For this purpose, it has developed the related software (which forms an integral part of its Aixplorer® ultrasound system), allowing breast, thyroid, prostate, liver and abdominal lesions to be diagnosed in real time by measuring tissue elasticity (elastography).

In 2018, Supersonic Imagine launched the next generation of Aixplorer: the MACH 30. Its enhanced performance, refined functional design and greater ease of use have already won over countless practitioners.

The Group owns or co-owns numerous patents which it developed, acquired or operates under license.

SuperSonic Imagine and its subsidiaries (which together constitute "the Group") have sold products from the Aixplorer range since 2009.

The Group subcontracts production of the ultrasound systems it sells.

SuperSonic Imagine SA, the Group's parent company, is a French corporation with a Board of Directors, domiciled in France. Its headquarters are registered at Jardins de la Duranne, 510 rue René Descartes, 13290 Aix-en-Provence, France. It is registered in the Trade and Companies Register of Aix-en-Provence under the number 481 581 890 and listed on Euronext Paris (ISIN FR0010526814).

Within the framework of its international development, six distribution subsidiaries were formed in the following countries (see Note 42):
(a) SuperSonic Imagine Inc., USA in March 2007;
(b) SuperSonic Imagine GmbH, Germany in March 2008;
(c) SuperSonic Imagine Ltd., United Kingdom in March 2008;
(d) SuperSonic Imagine Srl, Italy in October 2009;
(e) SuperSonic Imagine (H.K) Limited, Hong Kong in June 2011;
(f) Supersonic Imagine (Shanghai) Medical Devices Co. Ltd, China in December 2015.

1.2. Key Events of the Year

1.2.1. Commercial sphere

Revenue for the fiscal year totaled €24.3 million, down slightly (-2%) on 2017 due to the period of transition between the two product generations.
2018 was in fact a pivotal year for SuperSonic Imagine with the release in September 2018 of the new Aixplorer MACH 30 platform, the latest member of the Aixplorer® range. Aixplorer MACH® 30 introduces a new generation of UltraFast™ imaging that allows the optimization of all innovative imaging modes: ShearWave PLUS, UltraFast™ Doppler, Angio PL.U.S, TriVu.

Following clearance from the FDA in June 2018, the company obtained the CE mark in July 2018.
The 2% fall in sales in 2018 was due to customers waiting to make purchases in anticipation of the launch of the MACH 30, as well as the time required to do clinical site demonstrations of the new product. Demonstrations of Aixplorer MACH 30 only started in mid-October.
Aixplorer MACH 30 accounted for over 60% of the products sold in Q4 2018 (excluding China).

Moreover, Supersonic Imagine signed its first industrial partnership agreement with a U.S. company in 2018, with the first revenue from this new activity amounting to €0.3 million.

1.2.2. On financing

New bond issue for Kreos Capital V (UK) Limited ("Kreos")
In 2017, the company had issued a total of €12 million in bonds to Kreos (€6 million in March 2017 and €6 million in December 2017) in the form of bonds with share warrants (*Obligations à bons de souscription d'actions*).
On December 13, 2018, a new €12 million financing agreement was signed with Kreos comprising two €6 million tranches, each of which had €4.8 million in plain vanilla bonds and €1.2 million in convertible bonds with warrants (OCABSA).
The first €6 million tranche was subscribed by Kreos on December 13, 2018.
Terms and conditions of the loan can be found in Note 18.

Issue of a €2 million loan from Bpifrance
A 7-year €2 million loan was obtained from BPI in December 2018.

This financing will allow the company to accelerate its growth in its strategic markets (China, United States and France) strongly underpinning the launch of the new Aixplorer MACH 30 platform.

1.2.3. Corporate governance

Corporate governance – Board of Directors
SuperSonic Imagine's governance structure was changed at the Shareholders' Meeting of May 28, 2018. The company is now governed by a Board of Directors rather than by the Management Board and the Supervisory Board.

The Board of Directors has six directors who were formerly members of the Supervisory Board: Michaël Brock, Alexia Perouse, Sabine Lochmann, Mérieux Participations represented by Thierry Chignon, Bpifrance Investissement represented by Philippe Boucheron and Guy Frija.
The Board of Directors is chaired by Michaël Brock.
Michèle Lesieur is the company's Chief Executive Officer.

2. Basis for preparing the Company's Consolidated Financial Statements under IFRS

On March 11, 2019, the Board of Directors approved the consolidated financial statements. These financial statements will only be final after they are approved by the General Shareholders' Meeting, called for May 13, 2019.

2.1. Basis for preparing the Financial Statements

The Group's consolidated financial statements were prepared in conformity with IFRS (International Financial Reporting Standards) and IFRIC and SIC interpretations, as adopted by the European Union and their application was mandatory at December 31, 2018. The IFRS are available on the European Commission's website: http://ec.europa.eu/internal_market/accounting/ias_en.htm.
The accounting policies used are identical to the ones used for the preparation of the annual consolidated financial statements for the fiscal year ended December 31, 2017, with the exception of the adoption of the new standards described below.

On December 31, 2011, the Company prepared consolidated financial statements under IFRS for the first time. These first consolidated financial statements had been prepared in accordance with IFRS 1, "First-time adoption of International Financial Reporting Standards". The date of transition adopted by the Company was January 1, 2009. The Group has not used any of the exemptions set out in IFRS 1.

The consolidated financial statements were prepared under the historical cost convention, with the exception of certain financial assets and liabilities which are recognized at fair value.

The presentation currency of the Group is the euro. The consolidated financial statements are presented in thousands of euros with all values rounded to the nearest thousand (€ 000) unless otherwise indicated.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

2.2. Going concern

The financial statements have been prepared on a going concern basis, bearing in mind the following elements:

- The Company's historical loss-making situation may be explained by the innovative nature of the products developed, which involve several years of research and development, and by funding of its sales force. The Company has been in the active marketing phase of its products since 2009;
- Available cash stood at €8.6 million at December 31, 2018. The Company is now in a position to pre-finance its RTC annually and factor its trade receivables for up to €5 million;
- The Group considers that it needs further funding sources to be able to cover all operating activities and investments planned for the 12 months following the reporting date of these financial statements.
- To have the necessary financial resources and underpin its development and growth, the company is currently negotiating with various financial partners regarding possible further new funding options. It has, for example, the option of issuing a €6 million Kreos Tranche 4 by September 2019 (signed in December 2018 and subject to certain financial performance conditions and additional financing).

3. Summary of significant accounting policies

The accounting policies used are identical to the ones used for the preparation of the annual IFRS consolidated financial statements for the fiscal year ended December 31, 2017, with the exception of the adoption of new standards, amendments and interpretations described below.

The Group applied the following new standards, amendments and interpretations adopted by the European Union, which are mandatory for the Group as from January 1, 2018:

- IFRS 15 – Revenue from Contracts with Customers & Amendments date of entry into force of IFRS 15
- Clarifications to IFRS 15
- IFRS 9 – Financial Instruments
- Annual Improvements to IFRS (2014–2016 Cycle)
- Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions
- Amendments to IFRS 4: Application of IFRS 9 Financial Instruments and of IFRS 4 Insurance Contracts
- Amendment to IAS 28: Exemption from Applying the Equity Method – Measuring an Associate or JV at Fair Value
- IFRIC 22 – Foreign Currency Transactions and Advance Consideration
- Amendments to IAS 40: Transfers of Investment Property

The impact of the adoption of IFRS 15 and IFRS 9 as from January 1, 2018 are detailed below. The adoption of other new mandatory standards/amendments/interpretations listed above had no impact on the Group's financial statements.

- **IFRS 15 "REVENUE FROM CONTRACTS WITH CUSTOMERS"**

IFRS 15 supersedes IAS 11, IAS 18 and related interpretations (IFRIC 13, IFRIC 15, IFRIC 18, SIC 31) and lays down general revenue recognition principles. These principles are based on the idea that revenue recognition must reflect the transfer to customers of control over the promised goods and services for amounts representing the remuneration the entity expects to obtain in consideration for these goods and services.
The implementation of the standard requires 5 steps (identification of the contract, identification of performance obligations, determination of the transaction price, allocation of the transaction price; recognition of revenue when each performance obligation is satisfied).
The "Clarifications to IFRS 15" amendment published in April 2016, provides clarification on the identification of performance obligations, the implementation of provisions making it possible to distinguish between "agent" and "principal", the recognition of licenses and adds further practical expedients regarding the transition.
This standard requires the Group to make a judgment, having regard to all facts and circumstances, when applying the five-step approach described above to customer contracts. The standard also specifies the accounting treatment applicable to the incremental costs of winning a contract, as well as the direct costs of performing the contract.
See Note 3.A below on the effects of adopting IFRS 15 on the Group's financial statements.

- · **IFRS 9 "FINANCIAL INSTRUMENTS"**

IFRS 9 supersedes IAS 39 – Financial Instruments: Recognition and Measurement. It has three aspects:

- Classification and measurement of financial instruments: IFRS 9 specifically provides for financial assets to be classified more on the basis of the business model and the nature of expected cash flows;
- Impairment of financial assets: the impairment of financial assets is no longer based on the incurred losses model but rather a model requiring expected losses to be recognized;
- Hedge accounting: the changes introduced by IFRS 9 are designed to simplify certain hedge accounting provisions and better align hedging strategies with their accounting treatment. Discussions on macro-hedging are ongoing.

The Group applied IFRS 9 retrospectively, with an initial application date of January 1, 2018.
See Note 3.B below on the effects of adopting IFRS 9 on the Group's financial statements.

The Group also chose to apply early the following standard as from January 1, 2018 rather than at its mandatory application date of January 1, 2019:

- **IFRS 16 – Leases**

The impact of the adoption of IFRS 16 as from January 1, 2018 is detailed below.

IFRS 16 supersedes IAS 17 and the related interpretations (IFRIC 4, SIC 15 and SIC 27). The new standard eliminates the distinction between operating and finance leases by requiring lessees to recognize an asset comprising the right to use the leased asset offset by a liability comprising the obligation to pay for this right, subject to exemptions (leases with a reasonably certain term of under 12 months or underlying assets with a low value – i.e. where the new value is no more than around $5,000 and which can be used separately). The amortization of the right-of-use and the interest on the liability are subsequently recognized separately in the income statement. For lessors on the other hand, the standard applies the bulk of the earlier principles from IAS 17.
See Note 3.C below on the effects of adopting IFRS 16 on the Group's financial statements.

Moreover, the Group did not apply early any other standard, interpretation, amendment or revision that had not yet been adopted by the European Union or that was not mandatory for financial statements beginning on or after January 1, 2018:

Standard/Interpretation	**IASB anticipated date of application (fiscal years beginning on or after)**	**EU application date (at the latest for fiscal years beginning on or after)**
Amendments to IFRS 10 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture Effective date of amendments to IFRS 10 and IAS 28	*Postponed indefinitely*	*Suspended*
IFRIC 23 Uncertainty over Income Tax Treatments	1/1/2019	1/1/2019
IFRS 17 Insurance Contracts	1/1/2021	N/A
Amendments to IFRS 9: Prepayment Features with Negative Compensation	1/1/2019	1/1/2019

Standard/Interpretation	IASB anticipated date of application (fiscal years beginning on or after)	EU application date (at the latest for fiscal years beginning on or after)
Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures	1/1/2019	Endorsement expected in Q1 2019
Annual Improvements to IFRS 2015-2017 cycle	1/1/2019	Endorsement expected in Q1 2019
Amendments to IFRS 3 *Business Combinations* & IFRS 11 *Joint Arrangements*		
Amendments to IAS 12 *Income Taxes*		
Amendments to IAS 23 *Borrowing Costs*		
Amendments to IAS 19: Plan Amendment, Curtailment or Settlement	1/1/2019	Endorsement expected in Q1 2019
Amendment to IFRS 3: Definition of a Business	1/1/2020	Endorsement expected in 2019
Amendment to IAS 1 and IAS 8: Definition of Material	1/1/2020	Endorsement expected in 2019

The process of determining the potential impacts of these standards and interpretations on the Group's consolidated financial statements is currently pending.

Furthermore, the Group's annual consolidated financial statements do not take account of draft standards and interpretations that were still only at Exposure Draft stage at the IASB and IFRIC as of the reporting date.

3.A ADOPTION OF IFRS 15 REVENUE FROM CONTRACTS WITH CUSTOMERS

The Group adopted IFRS 15 as from January 1, 2018 using the modified retrospective approach.
Because of this modified retrospective approach, the adoption of IFRS 15 has thus not had any impact on the 2017 comparative financial statements presented.
Moreover, given the nature of the contracts entered into with Group customers, the revenue recognition principles applied up to December 31, 2017 are no different from those the Group now applies under IFRS 15 as described below.
The adoption of IFRS 15 has thus had no impact on the recognition of ongoing contracts and new contracts as from January 1, 2018 compared with how they would have been recognized under the old standards.
The Group opted for the first-time application option to not restate contracts where 100% of revenue was already recognized under the prior standards at January 1, 2018.

The main accounting principles applied by the Group relating to revenue from contracts with customers are detailed in Note 3.17.

3.B ADOPTION OF IFRS 9 "FINANCIAL INSTRUMENTS"

The Group adopted IFRS 9 as from January 1, 2018 using the simplified retrospective approach. The 2017 comparative financial statements were thus not adjusted as permitted under IFRS 9.
The Group does not have any hedging instruments and does not therefore apply hedge accounting.

Given the nature of the Group's financial assets, the Group has not identified any material impact from the application of the new IFRS 9.
Moreover, the Group is not impacted by changes in the accounting treatment for debt restructuring with no debt at December 31, 2017 having been restructured.

- **Classification and measurement**

Under IFRS 9, the financial assets are classified in accordance with their measurement method defined with respect to the characteristics of their contractual cash flows and the economic management model used by the Group.
The application of IFRS 9 mainly sees the elimination of "Available-for-sale financial assets" that under IAS 39 allowed the recognition of changes in the fair value of securities in "Other comprehensive income" before being subsequently recycled in income upon disposal.
At January 1, 2018, the Group had no assets in this category.

Under IFRS 9, all financial assets with cash flows representing more than the payment of principal and interest, such as non-consolidated securities, must be classified and measured at "fair value through profit or loss".
However, there is a one-time option upon first-time recognition of securities and the first-time application of the standard that assets classified as equity investments may be measured at "fair value through other comprehensive income (no recycling)". Only dividends continue to be recognized in profit or loss. This latter category is mainly comprised of non-consolidated securities with the characteristics of an equity instrument.
The Group does not have any material financial assets with cash flows representing more than the payment of principal and interest.

The non-current financial assets broke down as follows at 12/31/2017:

In thousands of euros	Dec. 31, 2017
Securities and cash pledged	51
Deposits and securities paid	286
Assets provided for the liquidity agreement	97
Total Other non-current assets	**434**

- **Impairment of financial assets**

IFRS 9 introduces an impairment model for financial assets that is based on expected losses whereas IAS 39 was based on incurred losses (recognition of impairment only following the occurrence of a credit event: late payment, significant deterioration in credit quality, etc.).
For non-current financial assets, impairment was assessed on an individual basis having regard to the risk profile of the counterparty and existing collateral. No impairment was recognized for non-current financial assets.
For trade receivables, the Group uses the simplified method in IFRS 9, which involves recognizing expected losses at the outset for all receivables having regard to statistical observations. This model did not identify significant differences from the model previously applied by the Group (trade receivables were then impaired whenever there was objective indication of the Group's inability to recover all sums due in the manner initially anticipated when the transaction took place).

- **Hedge accounting**

The hedge accounting changes introduced by IFRS 9 are designed to align accounting treatment with corporate risk management. The application of the hedge accounting provisions of IFRS 9 does not have a material impact given that the Group does not use hedging derivatives.

The accounting principles applied by the Group to financial instruments since the adoption of IFRS 9 are described in Notes 3.7, 3.12 and 3.13.

3.C ADOPTION OF IFRS 16 "LEASES"

The Group adopted IFRS 16 early as from January 1, 2018 using the modified retrospective approach. Because of this modified retrospective approach, the adoption of IFRS 16 has thus not had any impact on the 2017 comparative financial statements presented.

The Group elected to use the modified retrospective method upon first-time application, and, whenever practical expedients were possible, decided to use the following accounting treatments as from January 1, 2018 upon adoption of IFRS 16:

- Recognition of the cumulative impact on the date of first-time application, namely on January 1, 2018;
- No adjustments to the 2017 comparative financial statements;
- Retroactive application of the new definition of a lease to leases in effect on the date of first-time application;
- Use of hindsight to determine the length of the lease;
- Lease liability measured at January 1 as the sum of outstanding lease payments discounted at the marginal borrowing rate on the date of first-time application;
- Use of a sole discount rate for a portfolio of leases with similar characteristics;
- Measurement for the right-of-use at the same amount as lease liabilities, adjusted for any differences in payment schedule;
- Exclusion of direct initial costs when measuring the asset;
- For finance leases that existed in the Group's financial statements under the former IAS 17, the carrying amounts of the assets and liabilities under IAS 17 were maintained at January 1, 2018, and the principles of IFRS 16 are applied as from that date. The assets and liabilities were reclassified on the same lines as the assets and liabilities of the other leases restated in accordance with IFRS 16;
- Decision not to apply the exemption for leases with under 12 months remaining as of the date of first-time application. They were thus restated in accordance with IFRS 16;
- Finance lease transactions: no retroactive application of new recognition rules under IFRS 16. In the case of sales followed by an IAS 17 finance lease, sales and lease-backs were accounted for like any other finance lease that existed on the date of first-time application.

Moreover, in the context of the application of IFRS 16, the Group elected to apply the following accounting policies:

- exemption for short-term leases (IFRS 16.5a) for certain asset categories;
- exemption for low value leases (IFRS 16.5b) (replacement value of under USD 5,000)
- Decision not to split out non-lease components;
- Presentation on the balance sheet of the right-of-use and the liability on separate lines (IFRS 16.47);
- Choice of subsequent measurement of the right-of-use using the cost model (IFRS 16.35)

The impact of the adoption of IFRS 16 at January 1 is as follows in the financial statements as published on December 31, 2017. Given that the modified retrospective method was used upon first-time application there was no impact on the income statement or the statement of cash flows at first-time adoption.

In thousands of euros	Dec. 31, 2017 Published as per IAS 17	Impact of the adoption of IFRS 16	Reclassification of IAS 17 finance leases	January 1, 2018 as per IFRS 16
Intangible assets	14,158			14,158
Property, plant and equipment	4,443			4,443
Rights to use property, plant and equipment under leases	-	790		790
Other non-current assets	434			434
Total non-current assets	**19,035**	**790**		**19,825**
Inventories	5,037			5,037
Trade receivables	8,680			8,680
Other current assets	4,414			4,414
Cash and cash equivalents	19,017			19,017
Total current assets	**37,148**			**37,148**
Total assets	**56,183**	**790**	**-**	**56,973**
Capital	2,321			2,321
Share premiums	29,551			29,551
Consolidated reserves	5,966			5,966
Net income (loss) for the year	(12,247)	(25)		(12,272)
Total shareholders' equity	**25,591**	**(25)**		**25,566**
Financial debt – Long-term portion	11,294			11,294
Lease liabilities – Non-current portion	-	396		396
Retirement obligations	481			481
Provisions and other non-current liabilities	907			907
Total non-current liabilities	**12,682**	**396**		**13,078**
Financial debt – Short-term portion	7,034			7,034
Lease liabilities – Current portion	-	419		419
Trade payables and related accounts	5,226			5,226
Provisions and other current liabilities	5,650			5,650
Total current liabilities	**17,910**	**419**		**18,329**
Total liabilities	**30,592**	**815**		**31,407**
Total liabilities and shareholders' equity	**56,183**	**790**	**-**	**56,973**

Rights-of-use amounted to €790,000 at January 1, 2018 and involved the following items:

- Buildings €609,000 relating to premises occupied by various Group entities in Aix-en-Provence and China.
- Equipment €103,000
- Vehicles €78,000

Their residual average term as from January 1, 2018 was around two years.
The average marginal borrowing rate used to discount the liability at January 1, 2018 is 2% for buildings and 1% for equipment and vehicles.

The main accounting principles applied by the Group with respect to leases are discussed in Note 3.23.

3.1. Consolidation

Subsidiaries are all entities over which the Group has the power to govern the financial and operating policies accompanying a shareholding of more than half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing the Group's control over another entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date that control ceases.

Since all subsidiaries were created by the Group, no goodwill has been recorded since the creation of the Company.

Intragroup transactions, balances and unrealized gains on transactions between Group companies are eliminated. Unrealized losses are also eliminated for the assets transferred and are considered as an indicator of impairment loss. Accounting policies of subsidiaries have been changed to ensure consistency with the Group's policies.

The Group has no non-controlling interests or holdings in an entity requiring equity accounting.

3.2. Segment Reporting

The Group, which only markets products from the Aixplorer range, primarily operates in France, the USA, Asia, Europe and the Middle East.

Research and development expenses, production expenses, regulatory expenses and most marketing and administrative expenses are incurred in France. At this stage, these expenses are not subject to a strict allocation by geographic region where the Company's products are marketed. As a result, the performance of the Group is currently analyzed at the consolidated level.

Non-current assets and revenue by geographic region are detailed in Note 6.

3.3. Conversion of Foreign Currency Transactions

a) Functional and presentation currency of financial statements

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in euros, which is the Company's functional currency and the Group's presentation currency.

b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement in the "Financial income" or "Financial expenses" line items.

c) Group Companies

The results and financial position of all Group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency that differs from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each balance sheet line item presented are translated at the closing rate on the reporting date;
- Income and expenses for each income statement line item are translated at the monthly average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and
- Exchange differences resulting from the two points above are recorded as separate components of shareholders' equity in Currency Translation Reserves under Consolidated Reserves.

d) Net investment

Receivables held against consolidated foreign subsidiaries the payment of which is not foreseeable are considered as net investments in foreign currencies. As such, in accordance with IAS 21, unrealized foreign exchange gains and losses on these receivables denominated in functional currencies translated into euros for the purposes of consolidation have been recorded in Other Comprehensive Income (Loss) and in Currency Translation Reserves.

3.4. Intangible assets

a) Patents and licenses

Acquired technologies are recorded at acquisition cost less accumulated depreciation charges determined based on the duration of the legal protection of each technology.

In the case of payments taking the form of future royalties, a debt corresponding to the discounted future minimum payments is recorded in Other Current and Non-Current Liabilities against the cost of the acquisition if the future royalties can be reliably estimated. Variable royalties are expensed under the "Cost of sales" line for the fiscal year in which they are incurred.

Acquired technologies are depreciated in the income statement under "Research and development expenses" to the extent they are used for research projects.

When an acquired technology is no longer used, the corresponding gross amount and cumulative depreciation are removed from the balance sheet.

b) Research and development

Research charges are expensed as incurred.

In accordance with IAS 38, expenses corresponding to project developments – design and test of new or improved solutions – are recognized as an intangible asset when the following criteria are met:

- The Group has the intention, the financial capacity and the technical capability to see the development project through.
- The Group has the resources necessary to finish the development and to use or market the product developed.
- There is a high probability that the future economic benefits attributable to the products developed will flow to the Group.

- The expenditure attributable to the intangible asset during its development can be reliably measured.

Development expenses which do not meet the criteria are recognized as an expense for the period.

Capitalized development, which is principally composed of employee expenses, is depreciated in the income statement in the line "Research and Development expenses" on a straight-line basis over the duration of the estimated residual life of the product. This estimated remaining life is reviewed at each year-end. The costs of ongoing developments are tested annually to ensure their recoverable amount exceeds their carrying amount.

c) Other intangible assets

Other intangible assets correspond to acquired software which is depreciated over 12 months, with the exception of the ERP which is depreciated over 5 years. Costs linked to the acquisition of software licenses are recorded as assets based on the costs incurred to acquire and put into service the software concerned.

3.5. Property, plant and equipment

The Group's business premises principally comprise the head office located in Aix-en-Provence (France) and the U.S. subsidiary based in Weston (FL, USA) and those of the Chinese subsidiary in Shanghai. None of these premises is fully owned.

Equipment consists primarily of equipment dedicated to research and development as well as production equipment made available to the subcontractor.

Furniture and other office equipment relate to office and computing equipment.

All property and equipment are stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

All repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Depreciation is calculated using the straight-line basis over the estimated useful lives as follows:

Fixtures and fittings	3 to 10 years
Research equipment and materials	18 months to 5 years
Production equipment and materials	5 years
Furniture, office and IT equipment	3 to 5 years

Residual values and useful lives are reviewed and adjusted if necessary at each reporting date.

Gains and losses on the transfer of assets are determined by comparing the proceeds from the transfer to the carrying amount of the asset transferred and are recorded in the income statement in the line "Other operating income/(expenses)".

3.6. Impairment of non-financial assets and cash-generating units

The Group does not hold any goodwill or any property, plant and equipment or intangible asset that is non-depreciable or that has an indefinite useful live.

Non-financial assets including intangible assets and property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use.

3.7. Financial assets

a) Non-consolidated securities

The non-consolidated securities are recognized at fair value through profit and loss, and the Group did not take the one-off option, on the date of application of IFRS 9 or upon initial recognition, to recognize them at fair value through other comprehensive income.

b) Loans and receivables

Non-current loans and receivables are recognized at amortized cost using the effective interest rate method. Upon initial recognition, impairment is systematically recognized for expected credit losses from events that may occur over the coming twelve months. In the event of a significant deterioration in the credit quality of a counterparty, the initial impairment is supplemented to cover all expected losses over the residual maturity of the receivable. Trade and operating receivables are recognized at amortized cost. They are impaired using the IFRS 9 simplified model.

3.8. Inventories

Since the production of ultrasound devices is outsourced, the Group mainly holds inventories of finished goods and spare parts as well as demonstration equipment to be sold.

Inventory is evaluated at the purchase price and recorded according to the FIFO method. Impairment is recognized for references whose net realizable value is lower than the carrying amount.

Inventories are reduced to their net realizable value if this is lower than their cost. Net realizable value represents the estimated sale price in normal conditions of activity, less cost of sales.

3.9. Trade receivables

Trade receivables are amounts due from customers for merchandise sold or services performed in the ordinary course of business. If collection is expected in one year or less, they are classified as current assets.

3.10. Cash and cash equivalents

Cash and cash equivalents include: cash and sight deposits, deposits and loans maturing within three months, marketable securities not exposed to a significant risk of changes in value that can be readily converted into cash (particularly true of money market funds).
They are recognized at fair value through profit and loss. Investments in equities and bonds as well as deposits and loans maturing in over three months are excluded from cash and presented on the balance sheet under current or non-current financial assets.

3.11. Share capital

Share capital is composed of ordinary shares, which are all classified as shareholders' equity. Marginal costs directly attributable to the issuance of new shares or options are shown, as needed, in shareholders' equity as a deduction, net of tax, from the proceeds.

The Group issued dilutive instruments which have been taken into account in the determination of the diluted earnings per share (see Note 36).

3.12. Compound instruments

The Company separately recognizes the components of a financial instrument that (a) creates a financial liability and (b) gives the holder of the instrument an option of conversion into Company equity instruments. Accordingly, bonds with warrants (OBSA or OCABSA) are hybrid financial instruments.

When it issues an OBSA or OCABSA, the Company first determines the carrying amount of the liability component by measuring the fair value of a similar liability not accompanied by a warrant. The carrying amount of the instrument represented by the warrants is then determined by deducting the fair value of the financial liability from the fair value of the compound financial instrument as a whole.

Liabilities at fair value through profit and loss
When the Company issues share warrants (BSA) that do not result in the subscription of a fixed number of shares against a fixed amount of cash or another financial asset, these instruments cannot be characterized as equity instruments and are therefore presented on a separate line in the balance sheet and recorded at fair value in accordance with IFRS 9. Subsequent variations in value are recorded in the income statement as either financial income or expenses.

3.13. Measurement and accounting of financial liabilities

Financial liabilities include:

- Repayable advances from ANR and BPI for which the Group does not have reasonable assurance that they will not be repaid;
- Bonds with warrants (OBSA and OCABSA) and plain vanilla bonds;
- Use of an RTC pre-financing facility;
- A trade receivables factoring facility;
- A short-term financing facility;

- Two long-term loans from BPI.

Borrowings and other financial liabilities are initially recorded at fair value and then remeasured at amortized cost, calculated using the effective economic interest method.

Transaction costs which are directly attributable to the acquisition or issue of a financial liability are recorded as a decrease of this financial liability. These expenses are then amortized actuarially over the life of the liability, based on the effective economic interest. The effective economic interest is the rate which equalizes the expected cash flows from future cash expenditure to the current net carrying amount of the financial liability so as to deduct its amortized cost.

3.14. Employee benefits

- **Retirement obligations**

The Group has both defined benefit (mainly for French employees) and defined contribution plans. A defined contribution plan is a plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. The retirement plans that are not defined contribution plans are defined benefit plans. Typically defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognized in the balance sheet in respect of defined benefit plans is the present value of the defined benefit obligation at the reporting date. The defined benefit obligation is calculated annually using the projected unit credit method. The present value is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related retirement benefit liability.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to Actuarial profits/losses on retirement benefit obligations in Other comprehensive income in the period in which they arise.

In France, the Group’s commitments to employees concerning retirement are limited to a lump-sum payment based on the amount of time an employee has worked and paid when the employee reaches the age of retirement. This retirement benefit is determined for each employee based on the time they have worked for the Company and their final projected salary.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expenses when they are due. Prepaid contributions are recognized as an asset to the extent that this advance results in a reduction in future payments or a cash refund.

The Group provides no other retirement benefits or rights to its employees.

- **Termination benefits**

Termination benefits are payable when employment is terminated by the company before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these

benefits. The Group recognizes these termination benefits when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

3.15. Provisions

- **Provisions for contingencies**

Provisions for contingencies correspond to commitments resulting from litigation and other risks, the maturity and amount of which are uncertain, which the Company may be faced with as part of its activities.

Provisions are recognized when the Company has a legal or implicit obligation to a third party as a result of past events, for which it is probable or certain that an outflow of resources to the third party will be required to settle the obligation, without at least an equivalent value expected to be received in exchange, and when future outflows of liquidity may be reliably estimated.

The amount recorded as a provision is the best estimate of the expense necessary to extinguish an obligation, discounted at the date of the financial statements if necessary.

- **Provision for warranties**

Product sales made by the Group are covered by a one-year warranty. The measurement of the cost of the warranty as well as the probability that these costs will be incurred is based on an analysis of historic data. The provision corresponds to the number of months remaining on existing warranties at the reporting date for all equipment sold. Additions and reversals on the provision for warranties given to customers are recorded in the income statement within direct cost of sales.
No provisions are funded for future operating losses.

3.16. Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less after the reporting date. If not, they are presented as non-current liabilities.

3.17. Recognition of income

For both sales by the distributors or through Group sales representatives, the accounting treatment of revenue remains the same, and in compliance with standards on revenue recognition:

- **Revenue from the sales of systems**

The Group's products are generally sold through contracts or via purchase orders placed by customers which include fixed, determinable prices that do not contain a right of return or any significant post-delivery obligation, nor any other clause inducing deferred revenue.

Group contracts with customers for equipment sales generally comprise a single performance obligation.

The Group concluded that the proceeds of equipment sales should be recognized when control over the asset is transferred to the customer, typically upon delivery of the equipment. As a result, the adoption of IFRS 15 had no impact on when revenue was recognized.

Product distributors do not benefit from any contractual right of return on acquired products beyond the statutory warranty of 12 months granted on products.

- **Revenue for services**

Revenue for services (principally maintenance, after-sales service, warranty extensions) is recognized over the period when services are rendered and when collectability is reasonably assured.

Revenue from multiple element arrangements, such as those including services is recognized as each element is earned based on the relative fair value of each element.

- **Revenue from the Group's technology and industrial partnerships**

Revenue from the Group's technology and industrial partnerships represents a third source of income. It corresponds to the access rights to the technology developed by the Group or partnerships to access that technology. The income is non-recurring in nature, and, as such, is presented on a separate line in the income statement under Other Income.

This income corresponds to a limited number of contracts for which the proceeds are recognized according to the terms and conditions negotiated.

Each contract is subjected to a technical analysis that determines how the revenue will be recognized. Based on this analysis, the associated profit will be recognized in full upon the signing of the contract or spread over the relevant periods.

- **Provision for warranties**

Group product sales are covered by a one-year warranty, as required by law, for the general repair of defects that existed when sold. Accordingly, most of the warranties provided by the Group are classified as assurance-type warranties under IFRS 15, which the Group recognizes in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets, as it did before the adoption of IFRS 15. These statutory warranties are recognized by means of a provision for contingencies upon recognition of the income from the sale of the product. The measurement of the cost of the warranty as well as the probability that these costs will be incurred is based on an analysis of historic data. The provision corresponds to the number of months remaining on existing warranties at the reporting date for all equipment sold. Additions and reversals on the provision for warranties given to clients are recorded in the income statement within direct cost of sales.

However, in certain non-standard contracts, the Group provides warranties for over one year. Under IFRS 15, as the Group already did in the past, these warranties are recognized as service-type warranties and, accordingly, are recognized as separate performance obligations to which the Group allocates a portion of the transaction price on the basis of the relative individual sales price. Income is then recognized over time.

- **Cost of winning and performing contracts**

The marginal costs of winning customer contacts are capitalized and then amortized when the performance obligations under the contract are satisfied, and only where material, which is almost never the case given the nature of the Group's contracts.
Contract performance costs are capitalized if the costs are directly connected with an ongoing contract or an anticipated identifiable contract; and that they generate or enhance a resource needed to satisfy

future performance obligations; and that they are recoverable. They are amortized when the performance obligations under the contract are satisfied.

3.18. Cost of sales

The item Cost of sales includes expenses directly attributable to the production of Aixplorer systems, as well as services related to sales. This includes mainly:

- Product cost (purchase of components and assembly);
- Cost of the Group's Production department, which oversees the supply chain;
- Provision for warranties on systems sold;
- Royalties due for the technological elements that the Company exploits under licenses;
- The provision for write down of inventory due to obsolescence and scrapping.

3.19. Selling and marketing expenses

Selling and marketing expenses mainly include the following costs:

- Commercial roll-out;
- Development of the related sales force;

They also include most of the overheads incurred by the sales subsidiaries.

3.20. General and administrative expenses

General and administrative expenses mainly include:
wages of senior management, Administrative and Finance Department, IT Department, Quality Assurance & Regulatory Affairs.
audit, legal and consultancy fees and other costs relating to regulatory affairs and quality assurance (obtaining certification for Group products) as well as insurance and rental costs (excluding those included in selling and marketing expenses).

3.21. Operating costs

Operating costs include the purchasing, logistics, sales administration, customer satisfaction, product launch and service departments.

3.22. Tax credits and other government grants

Tax credits (Research Tax Credit, Innovation Tax Credit, and Job Competitiveness Tax Credit) are provided by the government to give incentives for companies to perform technical and scientific research. These tax credits are presented as a reduction in the expenses recognized in the income statement when (i) the Group can receive them irrespective of taxes paid or owed in the future, (ii) the costs corresponding to the eligible programs have been incurred, and (iii) supporting documentation is available.

The portion of the research tax credit relating to capitalized development expenses is considered an investment grant and recorded as a reduction of the intangible asset.

These tax credits are included in "Other receivables – current" or "non-current" based on the timing of expected cash inflows.

In addition, grants may be available to companies that perform technical and scientific research. Such grants are typically subject to performance conditions over an extended period of time. The Group recognizes these grants in the income statement as a reduction of "Research and development expenses" (i) over the cost of the corresponding research and development program and (ii) when confirmation of the grant has been received.

Assistance in activities of research and development can take the form of repayable advances. A non-repayable loan with conditions is treated like a public grant (recorded on a pro rata basis in the income statement as a reduction of research and development expenses) if there is reasonable assurance that the company will meet the conditions relating to the exemption from repaying the loan. In the opposite case, it is classified in Financial debt and measured at amortized cost. Insofar as the Company pays no interest on these advances, they were initially recognized at fair value, that is to say, with a discount equal to the market rate so as to reduce its effective interest rate to that of a normal debt. The difference between the fair value of the advance and its nominal value constitutes a subsidy recorded as a reduction of R&D expenses as the subsidized expenses are incurred.

3.23. Leases

The Group has applied IFRS 16 since January 1, 2018, which sets out the principles for the recognition, measurement, presentation and disclosures in the notes on leases and requires lessees to recognize their leases using a single model directly in the balance sheet, without distinction between finance leases and operating leases.
A lease implies i) an identified asset and ii) control by the Group of the right-of-use over this asset. Control over the right-of-use is recognized for the Group when it can benefit from substantially all the benefits flowing from the asset during the lease and it has the right to decide the purpose for which the asset will be used and the manner in which it will be used.
On the date in which the lease comes into effect, the Group recognizes:

- a debt (= lease liability), representing the sum of the present values of the outstanding payments over the life of the lease, such payments including fixed lease payments and, as the case may be, sums payable by virtue of the exercise of options, residual value guarantees, and discounted at the Group's marginal borrowing rate;
- and an asset representing the right to use the underlying asset throughout the lease (= right to use the leased asset, recognized under non-current assets), initially measured for the amount of the liability recognized. To this are added payments already made by the lessee, the costs of arranging the lease and future refurbishment costs.

The Group then recognizes separately the interest on the lease liability and the amortization expense on the asset connected with the right-of-use. The lease liability, once initially measured, is recognized using a technique approximating amortized cost at the effective interest rate. The result is an interest expense corresponding to the application of the initial discount rate to the amount of the liability at the start of the fiscal year. The payments made by the Group are deducted from the amount of the debt. The right-of-use is amortized and impaired in accordance with the respective provisions of IAS 16 "Property, plant and equipment" and IAS 36 "Impairment of Assets". With respect to amortization, the schedule cannot exceed the term of the lease if the Group is not to become the owner of the underlying asset.

The Group applied the following optional exemptions:

- Exemption for short-term leases under twelve months for certain asset categories;
- Exemption for low value leases (replacement value under USD 5,000);

The Group elected not to split out non-lease components because it feels they are not material.
The right-of-use and the debt are presented on separate lines in the balance sheet.
Subsequent measurement of the right-of-use is recognized using the cost model.
The Group remeasures the lease liability upon occurrence of certain events (for example, the term of the lease, a change in future lease payments resulting from a change in the index or rate used to determine the payments). The Group then adjusts the amount of the lease liability by adjusting the right-of-use asset.

3.24. Share-based payments

Plans paid out in equity instruments:
The Group operates a number of share-based compensation plans, under which the Group receives services from employees as consideration for equity instruments of the Group. The fair value of the employee services rendered in exchange for the granting of options is recognized as an expense, in accordance with IFRS 2. The total amount to be recorded corresponds to the fair value of the instruments granted.

When the instruments are exercised, the Company issues new shares. The amounts received when the options are exercised are credited to Share Capital (nominal value) and Share premiums, net of any directly attributable transaction costs.

Cash-settled plans:
The Group established two compensation plans, under which it receives services from its employees. These plans shall be paid out in cash, but the amount payable is indexed according to the share price. The fair value of the employee services rendered in exchange for the granting of options is recognized as an expense, with the corresponding debt being recorded under Other Current Liabilities, in accordance with IFRS 2. The total amount to be recorded corresponds to the fair value of the instruments granted.

When the instruments are exercised, the Company does not create any shares but rather pays the amounts due in cash. Where appropriate, it reduces the corresponding debt.

3.25. Current and deferred income tax

The tax expense for the period comprises current and deferred tax. Tax is recognized in the income statement, except for the portion related to items recognized in Other comprehensive income or directly in shareholders' equity. In this case, tax is also recognized in Other comprehensive income or directly in shareholders' equity, respectively.

The current income tax expense is calculated on the basis of the tax laws enacted or substantially enacted at the reporting date in the countries where the Group's companies operate and generate taxable income. The Group's management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognized using the liability method for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, the deferred income tax is not accounted for if it arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates and laws that have been enacted or substantially enacted by the reporting date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that a future taxable profit will be available, against which the temporary differences can be utilized.
Deferred income tax arising from temporary differences on investments in subsidiaries is recorded, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not expire in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

3.26. Earnings per share

Earnings per share are calculated by dividing the profit attributable to equity holders of the Company by the weighted average number of ordinary shares after deducting the weighted average number of treasury shares.
Diluted earnings per share are computed by dividing net income attributable to equity holders of the Company by the average number of ordinary shares issued after deducting the weighted average number of treasury shares, adjusted for the effects of all dilutive potential shares.

Dilutive instruments are taken into account when, and only when, their dilutive effect decreases earnings per share or increases loss per share.

3.27. Non-current operating income (loss)

There is an entry for the item Other non-current operating income/(expenses) only if a major event that occurred during the accounting period is likely to distort the reading of the Company's performance. As a result, it includes a very limited number of incomes or expenses that are unusual, abnormal and infrequent that the Company discloses separately in its income statement to facilitate understanding of current operating performance and allow the reader of the financial statements to have useful information to forecast future results.

It may include, for example:

- Significant and unusual capital gains or losses on disposals – or impairment – of non-current assets, property, plant and equipment or intangible assets;
- Certain restructuring or reorganization expenses that would distort the readability of current operating income;
- Other operating income and expenses, such as a provision for litigation for a considerable amount.

Items identical in nature to those mentioned above that do not meet the characteristics specified are classified as current operating income.

4. Financial risk management

4.1. Financial risk factors

The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance.

- **Foreign exchange risk**

As the Group carries out its business internationally, it is exposed to foreign exchange risks stemming from its operations in currencies other than the euro, which is the Company's functional currency and the currency in which it presents its financial statements.

The operating results and assets of the foreign entities (U.S., Chinese and British), as well as the Group's liquidities, are exposed to foreign exchange fluctuations, mainly to the EUR/USD exchange rate.

All of the Group's sales are denominated in EUR excluding sales in China, sales by the Company's U.S. subsidiary, sales by the U.S. area distributor and sales to some of the French company's customers made in dollars.

The Group's exposure to fluctuations in EUR/USD exchange rates is limited to the extent that the dollar amounts collected cover supplier invoices and personnel costs in that currency.

During the periods presented, the Group has not engaged in any hedging operations.

- **Credit risk**

Credit risk is managed on a Group-wide basis. Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions.

Credit risk linked to cash, cash equivalents and current financial instruments is not significant given the quality of the co-contracting financial institutions.

Customer credit risk is monitored by management on an individual basis and gives rise, for a portion of export receivables, to the purchase of suitable insurance coverage.

- **Liquidity risk**

Cash flow forecasting is performed by the Finance department. On the basis of regularly updated projections, Group management monitors the Group's liquidity requirements to ensure it has sufficient cash available to meet operational needs.

Such forecasting occurs on a monthly basis and takes into consideration the Group's financing plans. The Group's surplus cash is invested in interest-bearing current accounts, time deposits and money market deposits through the choice of instruments with appropriate maturities or sufficient liquidity to provide sufficient flexibility as determined by the above-mentioned forecasts.

4.2. Capital risk management

The Group's objectives when managing its capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders, generate benefits for other partners and maintain an optimal capital structure to reduce capital costs.

5. Critical accounting estimates and judgments

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next fiscal year are discussed below.

- Going concern

See Note 2.2.

- Amortization and impairment of intangible assets

Intangible assets mainly relate to the acquisition of technologies and development work on the various versions of Aixplorer as well as the new MACH 30 product. These assets are depreciated on a straight-line basis over their useful life, which is reviewed at every reporting date.

The need to write down intangible assets is confirmed when there are signs of impairment. The recoverable value is then estimated.

At the closing date on December 31, 2018, Management considered there to be no signs of impairment, and felt that the value of the intangible assets remained justified.

During the periods presented, the Group has not recorded any impairment of intangible assets.

- Share-based payments

The Group grants options (such as BSA, BSPCE, stock options, etc.) to acquire the Company's shares and other equity instruments, as well as free shares to Group executives and employees and to persons associated with the Company by consulting agreements. The determination of the fair value of share-based payments is based on a binomial option-pricing model and/or the Black & Scholes model, which take into account assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, the fair value of the Company's stock, expected share price volatility over the term of the instrument and current and future behavior of holders of these instruments. There is an inherent high degree of subjectivity involved when using such option-pricing models to determine the fair value of share-based payments under IFRS 2.

The valuation assumptions are presented in Note 17.

- Accounting for income taxes

The Group is subject to the income tax laws of France and those of the foreign jurisdictions in which it has business operations. These tax laws are often complex and subject to different interpretations by the taxpayer and the relevant taxation authorities. The Group must make judgments and

interpretations about the application of these tax laws when determining the provision for income taxes.

Deferred tax assets, which correspond primarily to loss carry-forwards, are only recorded when it is probable that the Group will record a taxable profit in the future. The Group must exercise its judgment when determining the probability of the existence of a future taxable profit. This analysis is performed on a tax jurisdiction by tax jurisdiction basis.

- TUCE contingent advance

As part of its development programs, the Group received a repayable advance as part of the TUCE project. The amount of the advance appears as financial debt on the balance sheet.

Repayments will be based on future sales of products resulting from the project, i.e., 2.5% of revenue, upon reaching €1.5 million. Repayments may therefore exceed the nominal amount received, but in the absence of a reliable estimate of the amount to be paid until 2023, this amount is not recorded in the balance sheet.

6. Information by geographic region

Revenue by product type breaks down as follows:

In thousands of euros	Dec. 31, 2018	%	Dec. 31, 2017	%
Sale of goods	20,653	85%	21,827	88%
Sale of services	3,637	15%	2,869	12%
Total	**24,290**	**100%**	**24,695**	**100%**

Revenue by geographic region breaks down as follows:

In thousands of euros	Dec. 31, 2018	%	Dec. 31, 2017	%
EMEA	9,074	37%	10,817	44%
Americas	3,491	14%	3,569	14%
Asia	11,725	48%	10,310	42%
Total	**24,290**	**100%**	**24,695**	**100%**

In 2018, the countries in which the Group earned more than 10% of its revenue were China (€10.035 million), the United States (€3.197 million) and France (€3.013 million).

In 2017, the countries in which the Group earned more than 10% of its revenue were China (€7.825 million), the United States (€3.205 million) and France (€5.104 million).

For 2018 and 2017 the Group's top five customers represented a combined 49% and 42% of consolidated revenue, respectively.

Only a single customer, in Asia, accounted for over 10% of the Group's revenue, with an invoiced amount of €8.118 million in 2018.

In 2017, the customer representing over 10% of consolidated revenue was also in Asia, with an invoiced amount of €4.876 million.

Revenue by distribution channel breaks down as follows:

In thousands of euros	Dec. 31, 2018	%	Dec. 31, 2017	%
Direct	16,309	67%	16,587	67%
Distributors	7,981	33%	8,108	33%
Total	**24,290**	**100%**	**24,695**	**100%**

The breakdown of property, plant and equipment and intangible assets by geographic region for the two fiscal years ended December 31, 2018 and 2017 is as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
EMEA	20,887	18,571
Americas	7	16
Asia	21	13
Total	**20,914**	**18,601**

For purposes of geographical analysis, Group management has allocated revenue based on the location where the goods are delivered or the services are rendered (destination of sales). Property, plant and equipment and intangible assets are allocated according to their geographic location.

7. Other income

Other income essentially consists of income linked to Group technology and industrial partnerships which is not recurring in nature, as it is not part of normal business activities.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Other income	338	-

8. Intangible assets

As at December 31, 2018, aggregate gross development costs amounting to €23.653 million primarily related to the development of Aixplorer versions V3 to Ultimate (amortized on a straight-line basis to end-2020), as well as capitalized expenses for the next generation ultrasound system amortized since early October.

The amount of internal development costs capitalized for the fiscal year stood at €3.234 million, wholly on the new version of the Aixplorer MACH 30.

Changes in intangible assets break down as follows over the last two fiscal years:

In thousands of euros	Patents/licenses	Development Costs	Others	Total
Year ended December 31, 2017				
Opening amount	779	11,525	29	12,333
Acquisitions	108	3,797	55	3,960
Depreciation and amortization	(200)	(1,917)	(18)	(2,135)
Closing amount	**687**	**13,405**	**66**	**14,158**
At December 31, 2017				
Gross value	1,973	20,419	1,173	23,565
Cumulative depreciation	(1,286)	(7,014)	(1,107)	(9,407)
Net book value	**687**	**13,405**	**66**	**14,158**

In thousands of euros	Patents/licenses	Development Costs	Others	Total
Year ended December 31, 2018				
Opening amount	687	13,405	66	14,158
Acquisitions	126	3,234	709	4,069
Depreciation and amortization	(162)	(1,975)	(41)	(2,178)
Closing amount	**651**	**14,663**	**735**	**16,049**
At December 31, 2018				
Gross value	2,099	23,653	1,882	27,634
Cumulative depreciation	(1,448)	(8,990)	(1,148)	(11,585)
Net book value	**651**	**14,663**	**735**	**16,049**

The capitalized internal development costs break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Personnel	3,424	3,365
Fees, External Services	442	1,872
Travel expenses and entertainment	112	61
Depreciation, amortization & provisions	449	393
Purchases and consumables	245	344
Others	223	191
Subtotal expenses	**4,895**	**6,226**
Operating grants	-	(354)
Research Tax Credit	(1,661)	(2,077)
Subtotal income	**(1,661)**	**(2,431)**
Capitalized R&D costs	**3,234**	**3,795**

The amount of internal development costs capitalized for the fiscal year stood at €3.234 million, wholly on the Aixplorer MACH 30.

There was no impairment as defined under IAS 36 noted during the periods presented.

Given that the usable life of the Aixplorer product was extended from end-2019 to end-2020, the remaining amortization schedule for the development costs of the Aixplorer product was accordingly changed from 10 to 12 years, applied prospectively from July 1, 2018. This change in estimate had a €341,000 impact on allocations for the fiscal year (calculated as follows: 2018 allocation under the former amortization schedule: €2.047 million, 2018 allocation under the new amortization schedule: €1.707 million).
The new Aixplorer MACH 30 platform came into service in September 2018, the date it was first launched, and its useful life is set at 12 years.

9. Property, plant and equipment

During fiscal year 2018, the Group made investments in R&D equipment, production equipment (the Group owns certain production tools, such as the molds for the design of the ultrasound systems, which are made available to the subcontractor responsible for their manufacture), as well as IT and transport equipment.

Changes in property, plant and equipment break down as follows for the last two years:

In thousands of euros	Tools, plant and technical equipment	Office and IT equipment	Others	Total
Year ended December 31, 2017				
Opening amount	992	154	184	**1,330**
Acquisitions	3,657	53	16	**3,725**
Disposals	(136)	-	(47)	**(183)**
Depreciation and amortization	(225)	(110)	(86)	**(421)**
Unrealized foreign exchange gains or losses	(14)	(6)	12	**(8)**
Closing net amount	**4,274**	**90**	**79**	**4,443**
At December 31, 2017				
Gross value	9,147	1,092	1,011	**11,251**
Cumulative depreciation	(4,873)	(1,003)	(932)	**(6,808)**
Net book value	**4,274**	**90**	**79**	**4,443**

In thousands of euros	Tools, plant and technical equipment	Office and IT equipment	Others	Total
Year ended December 31, 2018				
Opening amount	4,274	90	79	**4,443**
Acquisitions	852	72	10	**934**
Disposals	-	-	-	**-**
Depreciation and amortization	(393)	(75)	(72)	**(540)**
Unrealized foreign exchange gains or losses	15	3	11	**15**
Closing net amount	**4,748**	**90**	**28**	**4,865**
At December 31, 2018				
Gross value	9,965	1,167	1,032	**12,164**
Cumulative depreciation	(5,217)	(1,077)	(1,005)	**(7,299)**
Net book value	**4,748**	**90**	**28**	**4,865**

10. Leases

The Group elected to apply IFRS 16 early as from January 1, 2018.
Rights-of-use and lease liabilities for the fiscal year were changed as follows:

In thousands of euros	January 1, 2018 as per IFRS 16	New leases signed during the period	Disposals relating to expiring leases	Dec. 31, 2018
Buildings	609	24	(27)	606
Equipment	103	-	(47)	56
Vehicles	78	98	-	176
Total rights-of-use under leases – gross	**790**	**122**	**(74)**	**838**

In thousands of euros	January 1, 2018 as per IFRS 16	New leases signed during the period	Depreciation and amortization during the period	Disposals relating to expiring leases	Dec. 31, 2018
Buildings	-	-	(365)	-	(365)
Equipment	-	-	(23)	-	(23)
Vehicles	-	-	(64)	-	(64)
Total amortization of rights-of-use under leases	**-**	**-**	**(452)**	**-**	**(452)**
Buildings	609	24	(365)	(27)	241
Equipment	103		(23)	(47)	33
Vehicles	78	98	(64)	-	112
Total rights-of-use under leases – net	**790**	**122**	**(452)**	**(74)**	**387**

In thousands of euros	January 1, 2018 as per IFRS 16	New leases signed during the period	Disposals relating to expiring leases	Capital payments over the period	Dec. 31, 2018	*Of which current lease liabilities*	*Of which non-current lease liabilities*
Buildings	609	24	(27)	(309)	**297**	*296*	*1*
Equipment	103		(47)	(20)	**36**	*20*	*16*
Vehicles	78	98	-	(66)	**110**	*50*	*61*
Total lease liabilities	**790**	**122**	**(74)**	**(395)**	**443**	***366***	***78***

At December 31, 2018, rights-of-use amounted to €838,000 gross and €387,000 net and involved the following items:

- Buildings €606,000 relating to premises occupied by various Group entities in Aix-en-Provence, China and the United States.
- Equipment €56,000
- Vehicles €176,000

The residual average term as from December 31, 2018 was around a year and a half.
Rights-of-use increased by €452,000 in 2018, with amortization of lease liabilities principal of €395,000 and interest of €76,000.
The average marginal borrowing rate used to discount the liability from new leases agreed in 2018 is 2% for buildings and 1% for equipment and vehicles.
There was no sale and lease-back during the fiscal year.
There was no sub-leasing during the fiscal year.
There are no restrictions or covenants in the Group's leases.
The expenses recognized for short-term leases and low value leases not restated under IFRS 16 were not material for the fiscal year.

11. Other non-current assets

Other non-current assets break down as follows:

In thousands of euros	*Dec. 31, 2018*	*Dec. 31, 2017*
Securities and cash pledged	163	163
Deposits paid	187	174
Assets provided for the liquidity agreement	65	97
Total Other non-current assets	**415**	**434**

Assets provided under the liquidity agreement totaled €65,000. The liquidity agreement is described in Note 16.3.

12. Inventories

Inventories break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Raw materials & spare parts	4,409	3,257
WIP and finished goods	2,896	1,864
Demonstration equipment	1,723	1,483
Total gross inventories	**9,028**	**6,604**
Inventory impairment	(2,364)	(1,567)
Total Net Inventories	**6,664**	**5,037**

Loss on inventories during the period primarily corresponds to write-downs of items that were defective or returned by clients expecting an eventual repair, as well as the straight-line depreciation of demonstration materials.

Movements concerning the provisions for loss on inventories are recorded in the income statement in the Costs of sales and break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
At January 1	1,567	2,130
Provisions for losses on inventories	1,780	1,294
Reversals of provisions used	(984)	(1,857)
At December 31, 2018	**2,363**	**1,567**

Reversals of provisions used correspond to fully provisioned inventories that were obsolete or irreparable, and scrapped during the year.

13. Trade receivables

Trade and other receivables break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Trade receivables	12,082	10,419
Provisions for bad debt	(1,906)	(1,740)
Trade receivables, net	**10,176**	**8,680**

Provision for doubtful trade receivables primarily concerned 3 clients:

- Chinese distributor:

In China, the Group had chosen to terminate the exclusive distribution agreement between it and its distributor in April 2013. The latter had disputed and blocked the payment of the amounts due, a total of €474,000.

On October 22, 2009, the Company signed an exclusive distribution agreement with its distributor for some of its products in China (excluding Taiwan, Hong Kong and Macao).
In April 2013, the Company terminated this agreement, in particular noting that its distributor had not achieved its contractual objectives. After discussion between the parties, the distributor summoned the Company before the Beijing Chaoyang district court, and the intermediate district court of Beijing, in particular asking to continue the contract and extend it, given its interruption during the discussions between the parties, and that the Company comply with its exclusivity arrangement, disputing to that end the Company's statements and the applicability of the contractual arbitration clause. In September 2013, the Company had commenced an arbitration proceeding before the International Chamber of Commerce for payment of amounts owed under the contract as well as for damages.

In October 2014, the Company won its case and the Chinese distributor was ordered to repay its debt as well as pay €1 million in principal for damage suffered by the Group. Provisions continue to be funded for the related assets (€474,000 in trade receivables and €1.002 million in income receivable), unchanged on December 31, 2014.
At the same time, the distributor's claims were dismissed.

At the reporting date of the 2018 consolidated financial statements, proceedings for recovery have been launched and are ongoing.

- Brazilian distributors:

The receivables owed by the former Brazilian distributor for a total of €520,000 had been fully provisioned in 2013, the latter facing significant financial difficulties.
The same year, the Company had signed an exclusive agreement with a new distributor for the Brazilian market, which included a repayment schedule for the debt of the former distributor. This schedule was respected until August 2014, and the corresponding provisions returned for a total of €181,000.

In 2015, this new distributor faced cash flow issues, primarily due to the fall in the BRL vis-à-vis the euro (which fell 34% over the fiscal year), foreign exchange risks being borne by the latter insofar as it is billed by the Group in euros.

The Group is in regular contact with this new distributor, which wants to continue distributing SuperSonic Imagine products once it has been able to clear its debt. To this end, a 100% provision was funded for the debt owed by this new distributor since the 2016 reporting date.

Legal proceedings were brought in 2017 and were still ongoing in 2018.

At December 31, 2018, €5.359 million in receivables were overdue, including €1.906 million provisioned, i.e. a total of €3.453 million in receivables that were past due but not impaired. They relate to customers for which the Company has found that there is no risk of non-collection for these receivables.

At December 31, 2017, €3.100 million in receivables were overdue, including €1.740 million provisioned, i.e. a total of €1.360 million in receivables that were past due but not impaired. They relate to customers for which the Company has found that there is no risk of non-collection for these receivables.

The breakdown of these receivables by duration is as follows:

In thousands of euros	Total	Not due	1 to 30 days	30 to 60 days	60 to 90 days	90+ days
2017	10,419	7,320	426	188	377	2,108
2018	**12,082**	**6,723**	**1,997**	**234**	**283**	**2,845**

The gross carrying amounts of the Group's trade and other receivables are denominated in the following currencies:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Euro	6,327	6,479
US Dollar	5,637	3,848
Other currencies	118	92
Total	12,082	10,419

The maximum exposure to credit risk at the reporting date is the fair value of each class of receivable mentioned above. The amount of trade receivables at the reporting date is covered under a reservation of property clause in the general conditions of sale, to the benefit of the Company.

Changes in the provision for doubtful trade receivables, both current and non-current, were as follows:

In thousands of euros	2018	2017
At January 1	(1,740)	(1,620)
Increase in provision for doubtful receivables	420	265
Reversals of provisions used	0	0
Reversals of provisions not used	(254)	(145)
At December 31	(1,906)	(1,740)

14. Other current assets

Other current assets break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Research tax credit receivable	2,407	2,212
VAT receivable	852	739
Prepaid expenses	208	274
Prepayments	646	738
Operating grants receivable – current portion	-	452
Other receivables	16	-
Total other current assets	4,129	4,414

Given its status as an SME in EU terms, receivables relating to Tax Credits are repaid in the year following their recognition.

The tax credit receivable has changed as follows over the last two fiscal years:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Tax credit receivables	2,212	2,408
Tax credits received	(2,240)	(2,332)
Tax credits for the fiscal year	2,436	2,077
Adjustments to prior tax credits	-	71
Others	(1)	(11)
Tax receivables at close	**2,407**	**2,212**

The other tax credits mainly involve the Tax Credit for Competitiveness and Employment (Crédit d'Impôt Compétitivité Emploi – CICE).

At December 31, 2018, the amount of RTC for the past fiscal year was pre-financed for 67% of its estimated value, namely €1.585 million. In this respect, the financial statements include a short-term liability for this amount (see Note 18).

15. Cash and cash equivalents

Cash and cash equivalents break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Cash on hand	8,585	19,009
Marketable securities	8	8
Cash and cash equivalents	**8,593**	**19,017**

Cash held at banks is principally held in euros, along with €346,000 in the U.S. subsidiary and €322,000 in the Chinese subsidiary.

At December 31, 2018, the Group had short-term overdraft facilities totaling €4.8 million, including €1.6 million in 2018 RTC pre-financing and €3.2 million under a factoring agreement (see Note 18). It also had an unused authorized bank overdraft for €500,000.

16. Shareholders' equity

Since April 10, 2014, the Company's shares have since been admitted for trading on the Euronext regulated market in Paris under the ISIN code FR0010526814 and the mnemonic SSI.

In 2017, 6.932 million shares were created following the capital increase in June 2017 as well as 5,817 stock options exercised, raising the number of shares in circulation to 23,209,127 at December 31, 2017.

In 2018, 207,500 new shares were created following the effective allocation of the first tranche of free shares. This raised the number of outstanding shares to 23,416,627 at December 31, 2018.

16.1. Share capital

Variations in share capital break down as follows:

In thousands of shares	January 1, 2018	Share capital increase	Expenses relating to the capital increase	Retained earnings (losses) allotted to the share premium	Subscription of dilutive instruments			Dec. 31, 2018
					Stock options	Founders' warrants (BSPCE)	Warrants (BSA)	
Ordinary shares	23,209,127	207,500	-	-	-	-	-	23,416,627
Total number of shares	**23,209,127**	**207,500**	**-**	**-**	**-**	**-**	**-**	**23,416,627**
In thousands of euros								
Share Capital	**2,321**	21	-	-	-	-	-	**2,342**
Share premium	**29,551**	(21)	28	(10,192)	-	-	-	**19,365**

Change in share capital over the last two fiscal years

Transaction	Capital	Share premium	Number of shares
	(In thousands of euros)		
At January 1, 2017	**1,627**	**59,006**	**16,271,481**
Cash capital increase – June 2017	693	10,814	6,931,829
Expenses relating to the capital increase	0	-786	0
Reclassification of retained earnings as a deduction from the share premium	0	-39,483	-
Exercise of Stock options	1	0	5,817
Exercise of BSPCE	0	0	0
Exercise of warrants	0	0	0
At December 31, 2017	**2,321**	**29,550**	**23,209,127**
At January 1, 2018	**2,321**	**29,550**	**23,209,127**
Cash capital increase	21	-21	207,500
Expenses relating to the capital increase	0	28	0
Reclassification of retained earnings as a deduction from the share premium	0	-10,192	-
Exercise of Stock options	0	0	0
Exercise of BSPCE	0	0	0
Exercise of warrants	0	0	0
At December 31, 2018	**2,342**	**19,365**	**23,416,627**

16.2. Dividends

The Company has never distributed a dividend and does not intend to do so for fiscal year 2018.

16.3. Liquidity agreement

On April 15, 2017, a new liquidity agreement was signed with Gilbert Dupont that cancels and supersedes the agreement with Exane BNP Paribas. This agreement was signed for a period of 12 months ending on April 14, 2018 and will be subject to tacit renewal.

At December 31, 2018, the number of treasury shares held under the liquidity agreement was 110,931, in addition to €65,000 in cash.

Changes in shares held under this agreement, as well as the gains and losses for the fiscal year, decreased the amount of consolidated shareholders' equity by €31,000 in 2018.

16.4. Consolidated reserves

Consolidated reserves break down as follows:

In thousands of euros	2018	2017
At January 1	**(6,282)**	**(33,329)**
Profit (loss) for the year	(13,294)	(12,247)
Currency translation differences	(23)	(477)
Share-based payments – Expenses for the fiscal year	223	321
Subscription for warrants	31	-
Actuarial profits/(losses) on retirement commitments	36	(4)
Change in treasury shares	(31)	(30)
Allocation of negative retained earnings to the share premium	10,192	39,483
At December 31	**(9,146)**	**(6,282)**
Of which:		
Retained earnings (losses)	3,404	5,459
Loss for the year	(13,294)	(12,247)
Statutory reserve	-	-
Unavailable reserve	-	-
Treasury stock	(634)	(603)
Other comprehensive income	(590)	(603)
Share-based payments	1,968	1,713
At December 31	**(9,146)**	**(6,282)**

In France, companies must transfer 5% of their annual profit to a legal reserve until the reserve reaches 10% of the share capital. Since the Group has not generated any profits in the past, no contribution has been made.

17. Share-based payments

The Group allots 2 types of instruments to certain senior managers, employees, and people related to the Company by a consulting agreement:

- Share-based dilutive instruments, such as options for shares, free shares, warrants or founders' warrants. The latter are described below in Note 17.1;
- Non-dilutive instruments based on shares. The latter are described below in Note 17.2.

17.1. Share-based dilutive instruments

17.1.1. Conditions of plans allocated

At December 31, 2018, the following share-based payments were granted by the Company:

Founders' warrants (*Bons de souscription de parts de créateur d'entreprise* – BSPCE):

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments: awarded at outset Exercisable at Dec. 31, 2018	Expiration date
10-2008 BSPCE November 5, 2009	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€8.85	296,000 (2) 122,183	Nov. 5, 19

(1) Following the IPO on April 9, 2014, these instruments became immediately exercisable.

(2) Following the 10-1 stock split dated May 16, 2012, each BSPCE entitled bearers to subscribe for 10 shares at the unit exercise price indicated above. To make it easier to understand, the number of instruments at the outset was multiplied by 10, thereby reflecting the number of shares in the capital post-split.

Warrants (BSA):

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments: awarded at outset Exercisable at Dec. 31, 2018	Expiration date
10-2008 BSA (2) April 16, 2010	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€8.85	169,500 (2) 10,266	Apr. 16, 20
2013 BSA October 4, 2013	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€0.10	27,000 2,772	Oct. 4, 23
2017 BSA November 22, 2017	Exercisable by tranche of 33.33% at the end of 12, 24 and 36 month vesting periods from the Award within at most 4 years (3)	€1.86	100,000 33,333	Nov. 22, 21

(1) Following the IPO on April 9, 2014, these instruments became immediately exercisable.

(2) Following the 10-1 stock split dated May 16, 2012, each BSPCE entitled bearers to subscribe for 10 shares at the unit exercise price indicated above. To make it easier to understand, the number of instruments at the outset was multiplied by 10, thereby reflecting the number of shares in the capital post-split.

(3) The exercise of these warrants is subject to the holder being a member of the Supervisory Board/Board of Directors (continued membership) without any performance condition.

Ordinary shares/Stock options:

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments: awarded at outset Exercisable at Dec. 31, 2018	Expiration date
2013 ordinary options October 4, 2013	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€0.10	381,250 342,105	Oct. 4, 23
AGA Exchange 2013 options October 4, 2013	Exercisable up to 55% starting from the allocation date then for the rest up to 7.5% at the end of each quarter starting October 1, 2013. (1)	€0.10	254,500 256,105	Oct. 4, 23
09-2014 options September 19, 2014	Up to 6.25% of options may be exercised at the expiration of each successive 3-month period that has elapsed from the date of allocation, and at the latest within the 10 years following the date of allocation.	€8.40	411,850 102,964	Sep. 18, 24

(1) Following the IPO on April 9, 2014, these instruments became immediately exercisable.

Free shares:

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments awarded at outset	Expiration date
Free performance shares March 31, 2017	Vested and delivered to the beneficiaries in tranches of 20% at the end of 12, 24, 36, 48 and 60 month vesting periods from the Award. (1)	-	1,073,500	N/A
Free performance shares April 2018	Vested and delivered to the beneficiaries in tranches of 20% at the end of 12, 24, 36, 48 and 60 month vesting periods from the Award. (1)	-	114,000	N/A

(1) Except in special instances approved by the Board of Directors, beneficiaries irrevocably lose their Performance Shares for unvested tranches:

- *Where their resignation takes effect before the end of a vesting period, the loss of the Performance Shares shall take effect on the date that the beneficiary's employment contract or corporate office ends;*
- *In the event of dismissal or termination for any reason whatsoever before the end of the Vesting period, the loss of the Performance Shares shall take effect on the date of notification of dismissal or termination, as the case may be.*

On April 26, 2018, the Management Board, after consulting the Supervisory Board, decided to change the performance conditions for the 2017 Performance Shares.

The former performance conditions were thus dropped in favor of a new performance condition (the "**Performance Condition**") corresponding to achievement of a ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**"). This condition should also be assessed annually for the delivery of each of the remaining tranches of 2017 Performance Shares, starting with the tranche vesting on March 31, 2019.

The Performance Shares will be delivered to each Beneficiary for each tranche at the end of each Vesting Period subject to the Company's achievement of a performance condition (the "**Performance Condition**") representing a ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**").

In March 2018, 207,500 new shares were created for delivery of the first tranche following achievement of the performance targets.

Moreover, on April 26, 2018, the Management Board awarded 114,000 free performance shares to the Company's employees under authorizations granted by the Combined Shareholders' Meeting of June 24, 2016.
The Performance Shares will effectively vest and be delivered to beneficiaries in tranches in the following proportions after the vesting periods indicated:

- twenty percent (20%) at the end of a twelve (12) month vesting period following the Award;
- twenty percent (20%) at the end of a twenty-four (24) month vesting period following the Award;
- twenty percent (20%) at the end of a thirty-six (36) month vesting period following the Award;
- twenty percent (20%) at the end of a forty-eight (48) month vesting period following the Award;
- twenty percent (20%) at the end of a sixty (60) month vesting period following the Award.

During the vesting periods, the beneficiaries don't own the shares awarded to them and may not transfer the rights arising from such awards. The free shares will be delivered to their beneficiaries at the end of this vesting period.

Performance Shares will only be delivered to beneficiaries who remain an employee or corporate officer of the Company or of an associate throughout the vesting period for each tranche, except where otherwise provided for under the Plan and below.

Except in special instances considered by the Board of Directors, beneficiaries irrevocably lose their Performance Shares for unvested tranches:

- where their resignation takes effect before the end of a vesting period, the loss of the Performance Shares shall take effect on the date of the end of the employment contract or of the corporate office of the beneficiary;
- in the event of dismissal or termination for any reason whatsoever before the end of the Vesting period, the loss of the Performance Shares shall take effect on the date of notification of dismissal or termination, as the case may be.

The Performance Shares will be delivered to each Beneficiary for each tranche at the end of each Vesting Period subject to the Company's achievement of a performance condition (the "**Performance Condition**") representing a ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**").

The EBITDA/Revenue ratio is calculated for each tranche by dividing Company EBITDA by Revenue in the fiscal year immediately preceding the corresponding Vesting Date. If the actual EBITDA/Revenue Ratio is equal to or greater than 80% of the target EBITDA/Revenue Ratio for the fiscal year in question, the number of Shares to be delivered shall be equal to 100% of the Performance Shares awarded for the tranche in question, before the adjustments provided for in Article 7 below. If it is under 80% of the target EBITDA/Revenue Ratio, no Share will be delivered for the tranche in question.

17.1.2. Changes in outstandings for dilutive instruments

a) Founders' warrants (*Bons de Souscription de Parts de Créateur d'Entreprise* (BSPCE))

The number of founders' warrants outstanding and their average exercise price are detailed below:

	2018		2017	
Founders' warrants (BSPCE)	Exercise price in € per share	Number of instruments	Exercise price in € per share	Number of instruments
At January 1	**8.62**	**128,856**	**7.76**	**215,300**
Adjustment following the capital increase				2,356
Granted	-	-	-	-
Null and void	8.85	-6,673	5.84	-5,000
Exercised	-	-	-	-
Expired	-	-	8.85	-83,800
At December 31	**8.62**	**122,183**	**8.62**	**128,856**
Exercisable	**8.62**	**122,183**	**8.62**	**128,856**

Since the Company's IPO in April 2014, all founders' warrants have been exercisable.

b) Warrants

The number of warrants in circulation and their average exercise price are detailed below:

	2018		2017	
Warrants (BSA)	Average exercise price in € per share	Number of instruments	Average exercise price in € per share	Number of instruments
At January 1	**7.08**	**113,038**	**4.26**	**124,500**
Adjustment following the capital increase	-	-		338
Granted	-	-	1.86	100,000
Null and void	-	-	5.84	-8,800
Exercised	-	-	-	-
Expired	-	-	5.20	-103,000
At December 31	**7.08**	**113,038**	**7.08**	**113,038**
Exercisable	**7.08**	**46,371**	**7.34**	**13,038**

c) Share Subscription Options/Stock Options

The number of stock options in circulation breaks down as follows:

	2018		2017	
Share Subscription Options (OSA)	Exercise price in € per share	Number of options	Exercise price in € per share	Number of options
At January 1	0.20	701,481	0.20	692,061
Adjustment following the capital increase			-	15,171
Granted	-	-	-	-
Expired	-	-	-	-
Exercised *	0.10	-308	0.10	-5,750
At December 31	**0.20**	**701,174**	**0.20**	**701,482**
Exercisable	**0.20**	**701,174**	**0.20**	**701,481**

** The increase in the number of outstanding Company shares following the exercise of these stock options will be confirmed for legal purposes in early FY 2019.*

d) Free shares

The number of free shares in circulation breaks down as follows:

	2018		2017	
Free shares	Exercise price in € per share	Number of free shares	Exercise price in € per share	Number of free shares
At January 1	-	1,022,500	-	-
Adjustment following the capital increase	-	-	-	-
Granted	-	114,000	-	1,073,500
Null and void	-	- 32,500	-	- 51,000
Awarded during the period	-	-207,500	-	-
At December 31	-	896,500	-	1,022,500

17.1.3. Plan valuation

The valuation of warrants, founders' warrants, stock options and free shares is as follows:

Plan	Valuation model	Share price at the allocation date (in euros)	Annual risk-free interest rate	Expected volatility	Expected maturity (years)	Discount for non-transferability	Unit fair value (in euros)
Founders' warrants (*Bons de souscription de parts de créateur d'entreprise* – BSPCE):							
10-2008 BSPCE	B&S	8.847	3.64%	47.80%	10	30.48%	1.801
Warrants (BSA):							
10-2008 BSA (2)	B&S	8.847	3.41%	45.52%	10	30.48%	1.801
2013 BSA	B&S and binomial	0.10	0.19%	22.00%	1	0	0.010
2017 BSA	B&S	1.86	0.38%	42.90%	4	32.9% to 64.5%	1.860
Ordinary options/Stock options:							
2013 ordinary options	B&S and binomial	0.10	2.42%	35.00%	10	30.48%	0.030
AGA Exchange options	B&S and binomial	0.10	2.42%	35.00%	10	30.48%	0.030
Options 09-2014	B&S	8.40	0.35%	37.51%	7	0.00%	3.980
Free shares:							
2017 free performance shares		1.52					1.52 to 1.768
2018 free performance shares		1.768					1.768

No assumption of turnover or dividend distribution was used for the valuation of these instruments.

17.2. Share-based non-dilutive instruments

On July 1, 2014, the Group granted employees at the Chinese representative office Stock Appreciation Rights (SAR).

The principle is as follows:
Each of the nine beneficiaries has received a fixed number of SARs, which vest over two years (with the exception of one person where they were fully vested upon allocation), except in cases of a change in Company control, where all of them would immediately become exercisable. These SARs are exercisable through October 23, 2023 (subject to attendance conditions within the Group).

The Group shall pay the allottee upon written request, and for each year of the allotted SARs, the lower amount between the following two amounts:

- The market price of the Company's stock on the eve of the request for exercise, less €0.10;
- €20.

At the reporting date, the valuation of the SARs allotted was €23,000, namely €10,500 less than at 12/31/2017.

17.2.1. Conditions of plans allocated

Plan – Date of allocation	Vesting conditions	Number of instruments awarded at outset. *Exercisable at Dec. 31, 2018*	Expiration date
Stock Appreciation Right			
SAR 07-2014 July 1, 2014	Exercisable in thirds on July 1 of each year (2014, 2015, 2016), or immediately exercisable in the event of a change in control	10,000 10,000	Oct. 23, 23
SAR 07-2014 July 1, 2014	Fully exercisable at July 1, 2014.	5,000 5,000	Oct. 23, 23

17.2.2. Changes in outstandings for non-dilutive instruments

SAR	2018	2017
	Number of instruments	Number of instruments
At January 1	15,000	15,000
Granted	-	-
Null and void	-	-
Exercised	-	-
Expired	-	-
At December 31	**15,000**	**15,000**
Exercisable	**15,000**	**11,600**

17.3. Plan charges by fiscal year

Expenses recognized in the financial statements in prior fiscal years are as follows:

In thousands of euros	2014 and previous	2015	2016	2017	2018	Total
Founders' warrants (BSPCE)	599	-	-	-	-	599
Free shares	20	-	-	321	199	539
Warrants (BSA)	299	-	-	-	25	325
Stock options	443	30	-	-	-	473
SAR	113	(71)	3	(9)	(11)	25
Total	**1,474**	**(41)**	**3**	**313**	**212**	**1,961**

18. Financial debt

Financial debt breaks down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Non-current		
Repayable advance – Tuce	204	204
Repayable advance – Icare	1,338	1,026
Long-term loan	3,726	1,800
Bond issue	9,775	8,265
Total non-current	**15,043**	**11,294**
Current		
Repayable advance Business France	15	15
Repayable advance – Tuce	204	204
Short-term debt	5,063	4,060
Bond issue	4,550	2,755
Total current	**9,832**	**7,034**
Total financial debts	**24,875**	**18,329**

Financial debts are primarily comprised of:

- Repayable advances (described below);
- Bond issues (described below);
- Short-term borrowings primarily comprising the 2018 RTC pre-financing of €1.6 million and a trade receivables factoring facility of €3.2 million (described in Note 39.3);
- Two long-term innovation loans arranged with Bpifrance, with €1.8 million received in 2017 and €2 million received in 2018.

Financial debt changed as follows over the fiscal year:

In thousands of euros	Dec. 31, 2017	Subscription	Repayments	Effective interest rate provision	Dec. 31, 2018
Repayable advance Business France	15				15
Repayable advance – Icare	1,026	274		38	1,338
Repayable advance – Tuce	408				408
Short-term debt	5,860	5,215	(2,286)		8,789
Bond issue	11,020	5,636	(2,760)	429	14,325
Total financial debts	**18,329**	**11,126**	**(5,046)**	**467**	**24,875**

18.1. Repayable advances

Within the framework of its development programs, the Company received repayable advances (granted by OSEO at the time, and now under the control of BPI), two of which are still outstanding:

Icare repayable advance:
A non-interest bearing repayable advance was granted, for a total of €3.0 million for the Icare program, including €516,000 received on March 8, 2010, €347,000 received on June 13, 2012 and €274,000 received in 2018. The initial contract stipulated that the advance will be repaid according to the future sales of products from the project, up to the fiscal year ending in 2022. Repayments could therefore exceed the nominal amount received.
In the 2017 fiscal year, the Company had reached an agreement with Bpifrance, which is funding this program, in particular regarding the revenue base to be considered for future payments, since part of the initial objectives have not been achieved.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet at 25% of the repayable advance received and for the interest component.

TUCE repayable advance:
A non-interest bearing repayable advance was granted, for a total of €0.4 million for the TUCE program, including €77,000 received on June 26, 2012, €242,000 received on July 1, 2015, €27,000 on June 13, 2016 and €61,000 on July 5, 2017. The repayments will be based on future sales of products from this project, and may thus exceed the nominal amount received, but in the absence of a reliable estimate of the amount to be paid until 2023, this amount is not recorded in the balance sheet (see also Note 39.3).

Business France:
A repayable advance under the "Export+ santé Cosmétique" program covering up to 50% of the total amount of filing and certification costs with €200,000 being awarded. This program is meant to support corporate growth. A €15,000 advance was paid on December 21, 2016.
The repayments plus a 7.5% surcharge will be made if within 18 months to 3 years from certification, revenue from the products and country in question is equal to or more than double the amount of expenses the advance helped finance.

The contingent advances changed as follows during the fiscal year:

In thousands of euros	Business France	OSEO ICARE	OSEO TUCE	Total
Debt as at December 31, 2016	**15**	**733**	**346**	**1,094**
+ payments received	-	-	61	61
- repayments	-	-	-	-
- discounting	-	-	-	-
+ interest provision	-	267	-	267
+ accretion	-	25	-	25
- Cancellation of the debt	-	-	-	-
+/- change in assumption	-	-	-	-
Debt as at December 31, 2017	**15**	**1,025**	**407**	**1,447**
+ payments received	-	274	-	274
- repayments	-	-	-	-
- discounting	-	-	-	-
+ interest provision	-	-	-	-
+ accretion	-	38	-	38
- Cancellation of the debt	-	-	-	-
+/- change in assumption	-	-	-	-
Debt as at December 31, 2018	**15**	**1,337**	**407**	**1,759**

The repayment schedule for the advances above is as follows at the reporting date:

In thousands of euros	Total	< 1 year	1 to 5 years	> 5 years
TUCE advance	407	203	204	-
ICARE advance	1,337	-	610	727
Business France	15	15	-	-
Total	1,759	219	814	727

18.2. Bond issues

2017 Kreos bond (Tranches 1 and 2)

In 2017, the company arranged a new bond issue for Kreos, for a total of €12 million, consisting of two tranches of bonds with warrants (OBSA), for €6 million each, which will help finance the commercial development of SuperSonic Imagine and pay down some existing debts.
The first tranche (Tranche 1) for €6 million was subscribed following the Management Board meeting of March 13, 2017.
The second tranche (Tranche 2) for €6 million was subscribed following the Management Board meeting of December 22, 2017.

The loan's terms and conditions are as follows:

- The loan is for a period of 42 months and bears interest at an annual fixed rate of 10.75%
- Standard pledges have been provided by SuperSonic Imagine over the bank accounts, intellectual property and certain trade receivables (see Note 39.2)
- each warrant shall entitle the holder to subscribe for a number of shares calculated using the following formula (the "Exercise Ratio"):

R = [(1,320,000 / P) * { 0.5 + [0.5 * (NOBSA / 12,000,000)] }] / NOBSA
where: R: means the Exercise Ratio
P: means the volume-weighted average price of the Company's shares on the Paris NYSE Euronext market during the ninety days preceding the date of issue of the bonds with warrants (OBSA);
NOBSA: means the number of bonds with warrants (OBSA) actually subscribed by said holder on the date of exercise of the warrants.
Accordingly, each warrant holder may subscribe for the number of shares ("N") resulting from the following formula: N = R * NBSA where: R: means the Exercise Ratio, and NBSA: means the number of warrants held by the relevant warrant holder.

A representative of Kreos is entitled to attend meetings of the Board of Directors of SuperSonic Imagine as a non-voting member (*censeur*).

In parallel with the issue of the bonds with warrants, in March 2017 the company had entered into a put option agreement for warrant holders, under which it undertook to buy back the Kreos warrants for a maximum of €660,000 at the request of the warrant holders.
The fair value of this debt was €514,000 at December 31, 2017.

When Tranche 3 was issued in December 2018 (see description below), Kreos outright waived all its pre-existing warrants along with the related put option.
All these warrants and related put options thus expired at 12/31/2018.

2018 Kreos bond (Tranche 3)

On December 13, 2018, the Company issued a new €12 million bond to Kreos comprising two €6 million tranches, each of which had €4.8 million in plain vanilla bonds and €1.2 million in bonds convertible into shares with warrants (OCABSA) and will help finance the commercial development of SuperSonic Imagine and the repayment of certain existing debts.

The first tranche (Tranche 3) was subscribed following the December 13, 2018 meeting of the Board of Directors.

The second tranche (Tranche 4) will be realizable by September 30, 2019 subject to certain financial performance conditions and additional financing.

The loan's terms and conditions are as follows:

- The loan is for a period of 42 months (42 monthly installments with capital repayments deferred for 6 months) at an annual interest rate of 10.75%;
- Standard pledges have been provided by SuperSonic Imagine over the bank accounts, inventories, intellectual property and certain trade receivables (see Note 39.2)
- Option for the Company to redeem these plain vanilla bonds at any time, provided all are redeemed. The penalties payable will thus be equal to the sum of future interest owed discounted at 10% per annum.
- Kreos may convert some or all of the convertible bonds into shares at any time. Each convertible bond may be converted into N_{CS} new ordinary shares calculated using the following formula:

The number of Conversion Shares to be issued to the Subscriber upon service of a Conversion Notice shall be equal to the result of following formula:

$$N_{CS} = CR * N_{CB}$$

Where:

N_{CS} means the number of Conversion Shares

CR means the Conversion Ratio, and

N_{CB} means the number of Convertible Bonds to be converted in accordance with the Conversion Notice.

The Conversion Ratio will be equal to the result of the following formula:

$$CR = 1 / (P - D)$$

Where:

P: means the lower of (i) 100% of the volume weighted average price per share of all shares traded on the NYSE Euronext in Paris for the 30-day period ending ten days prior to the Completion Date and (ii) the share price paid by investors in any new financing round, being specified however that P may not be lower than the floor determined by the General Meeting, in its 26th and 28th resolutions, i.e. the lower of (i) the volume weighted average price per share of all shares traded on the NYSE Euronext in Paris for the 3-day period ending the day before the day on which P is determined, discounted by 5%, and (ii) the volume weighted average price per share of all shares traded on NYSE Euronext in Paris for the 3-month period ending the day before the day on which P is determined, discounted by 15%;

D: means the cumulated amounts of dividends per share paid by the Issuer between Completion Date and the Conversion Date.

- The 1,200,000 warrants issued with the convertible bonds will entitle the holder to subscribe for a number of shares calculated using the following formula (the "Exercise Ratio") at an exercise price P:

R = [(2,640,000 / P) * { 0.5 + [0.5 * (NB / 12,000,000)] }] / NW

where: R: means the Exercise Ratio

P: means the lower of (i) €1.5811 and (ii) the unit price of a share in a subsequent fundraising round, it being noted that P may not be under €1.2368. Accordingly, each warrant holder may subscribe for

the number of shares ("N") resulting from the following formula: N = R * NBSA where: R: means the Exercise Ratio, and NBSA: means the number of warrants held by the relevant warrant holder.

The maximum number of shares that may be issued upon conversion of the Tranche 3 convertible bonds is 970,246 shares, and upon exercise of the Tranche 3 warrants is 1,600,906 shares, namely a total maximum to be issued of 2,571,152 new shares.

In parallel with the issue of the bonds with warrants, in December 2018 the Company entered into an alternate put option agreement for warrant holders, under which it undertook to buy back the Kreos warrants for a maximum of €1.10 per warrant at the request of the warrant holders. Kreos can thus elect to exercise this alternate put option, in whole or in part.
The alternate put option can only be exercised:
- (i) for an aggregate of 800,000 warrants: at any time following the expiry of Tranche 3 (after 42 months or early redemption, including acceleration), or prior to that in the event of the disposal of all the Company's share capital;
- (ii) for an additional 1,600,000 warrants (and limited to the number of warrants actually issued in Tranches 3 and 4): at any time following expiry of the earliest of the expiry of tranche 3 and of tranche 4 (full term or early redemption, including acceleration) or prior to that in the event of the disposal of all the Company's share capital.

The exercise price of this put is as follows:
• If the alternate put option is exercised, in whole or in part, before tranche 4 is drawn down, the sale price will be €1.10 per warrant.
• If tranche 4 is then drawn down and subscribed under the OCABSA issue agreement, the sale price of the warrants issued under this tranche 4 of the OCABSA issue would thus be €0.55 per warrant.
• If the alternate put option is only exercised after the draw-down and subscription of tranche 4 the sale price will be €0.825 for the warrants of both tranches 3 and 4.

In parallel with the issue of the OCABSA, the Company also approved a put option agreement for the warrant holders. This put option agreement is a cashless exercise put option, which means that warrant holders exercising warrants do not have to pay the exercise price of the warrants: at the time of exercise of the warrants, a proportion of the warrants exercised are bought back by the Company in cash and this sum immediately used to settle the exercise price for the remaining warrants exercised. This mechanism will create a payable due by the Company to Kreos, which will be used to complete the capital increase by offsetting the payable, corresponding to the remainder of the warrants exercised.

Measurement of bonds

The number of shares to be issued is not known at the time of the issue of Tranches 1 and 2 OBSA and Tranche 3 OCABSA, these being classified as financial instruments with a debt component (measured at amortized cost) and derivative liabilities (measured at fair value) corresponding to the option to convert the convertible bonds, warrants, put options and the alternate put options.

For Tranches 1 and 2, the warrant/put option component had been measured at €514,000 at 12/31/2017. It was thus recognized for €514,000 under Financial Debt at December 31, 2017. This component was canceled when Tranche 3 was issued on 12/13/2018 and its fair value was thus zero at 12/31/2018.

For Tranche 3, the total fair value of the issue was €6.554 million on 12/13/2018 and was split as follows between the various components on the date of issue:

- Convertible bond conversion component;
- Warrant component;
- Put option component;
- Alternate put option component.

All the derivative components measured at fair value were classified as debt instruments, the number of shares to be issued or the exercise price being variable. Bond liabilities thus include a debt component (measured at amortized cost) and derivative liabilities (measured at fair value) listed above.
The change in the fair value of the derivative liabilities between 12/13/2018 and the 12/31/2018 reporting date was not material.

The Group incurred costs arranging each tranche. These were factored in when determining the loan amortization using the amortized cost method.
After factoring in the aforementioned issuance costs and derivative liability components, the effective interest rate of the bonds was between 14% and 18% depending on the tranche.

The value of the Kreos bond issue (Tranches 1, 2 and 3) in the balance sheet is as follows:

	At Dec. 31, 2017	Redemptions during the fiscal year	Changes during the fiscal year	Cancellation of warrants and put option Tranches 1 and 2	Issue Kreos Tranche 3	At Dec. 31, 2018
Issue of Tranche	12,000				6,000	18,000
Deposits paid upon subscription	(388)				(194)	(582)
Redemption of KREOS bonds	(622)	(2,760)				(3,382)
Issuance costs allotted to the KREOS bonds	(150)				(170)	(320)
Derivative liability components Tranches 1 and 2	(514)		(41)	555		-
Derivative liability components Tranche 3	-				(1,167)	(1,167)
Change in accrued interest	181		429			610
Debt component	**10,507**	**(2,760)**	**388**	**555**	**4,469**	**13,159**
Derivative liability component	**514**		**41**	**(555)**	**1,167**	**1,167**
TOTAL	11,020	(2,760)	429	-	5,636	14,325

The maturity of the bond is as follows at the reporting date:

In thousands of euros	Total	< 1 year	1 to 5 years	> 5 years
KREOS	14,325	4,550	9,775	-
Total	14,325	4,550	9,775	-

Norgine warrant

The €5 million bond subscribed by Norgine in 2013 was repaid early in March 2017.

There nevertheless continue to be warrants with the following characteristics.

Number: 50,000 warrants

Exercise ratio: each warrant entitles its bearer to subscribe for a share with a unit price of €10.

Exercise period: Due to the Company's IPO in April 2014, these warrants became exercisable through December 17, 2023.

19. Retirement commitments and similar benefits

In France, the Group makes payments to the national retirement benefit scheme and its commitment to employees concerning retirement is limited to a lump-sum payment based on the amount of time an employee has worked and paid when the employee reaches the age of retirement. This retirement benefit is determined for each employee based on the time they have worked for the Company and their final projected salary. In the United Kingdom and the United States, the Group contributes to a defined contribution scheme which limits its commitments to the payments made. These contributions are recorded in fiscal year charges.

The amounts recognized in the balance sheet are determined as follows. They relate to the retirement pay plans for French employees.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Provision for retirement benefit obligations	529	481

Changes in the obligation under the defined-benefit plan during the year are presented below:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
At January 1	**481**	**486**
Cost of services rendered during the period	77	69
Financial cost	7	6
Services paid	-	(30)
Reductions/terminations	-	(54)
Actuarial gains and losses	(36)	4
Currency translation differences	-	-
At December 31	**529**	**481**

The amounts recognized in the income statement are determined as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Cost of services rendered during the period	77	69
Financial cost	7	6
Reductions/terminations	-	(54)
Services paid	-	(30)
Total	**84**	**(9)**

The main actuarial assumptions used are as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Discount rate	1.65%	1.5%
Rate of increase in salaries	3.0%	3.0%
Inflation rate	2.0%	2.0%
Social security rate: Non-management	38.5%	41.7%
Social security rate: Management	45.9%	46.2%

Obligations are calculated based on an assumption of voluntary retirement at 62 for employees and 64 for management.

Assumptions regarding future mortality expectations are set based on data from published statistics and historical data in France (INSEE table TD/TV 2012 – 2014).
The mobility rates used were determined on the basis of statistics from recent years. This rate represents an average annual mobility rate of 7.1% of employees.

20. Other non-current liabilities

Other non-current liabilities are detailed below:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Trade payables – non-current portion	532	478
Deferred revenue – non-current portion	549	429
Total	**1,081**	**907**

The non-current portion of suppliers principally corresponds to future payments discounted for the minimum fixed royalties on acquired patents and licenses.

The non-current portion of deferred revenue consists of maintenance contracts and income from operating grants recognized as expenses incurred where this lasts for more than one year.

21. Trade payables

Trade payables break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Trade payables	**6,702**	**5,704**
Of which current	6,170	5,226
Of which non-current	532	478

22. Other current liabilities

Other current liabilities break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Social security costs	2,748	2,966
Deferred revenue – current portion	1,381	868
Provisions for other current liabilities (see details)	586	685
Tax debt	647	810
Advances received on orders	205	307
Miscellaneous	50	14
Total other current liabilities	**5,617**	**5,650**

The deferred revenue pertains to i) a portion of the income from operating grants staggered to reflect actual expenses and ii) services (primarily maintenance, after-sales service, warranty extensions) the revenue for which is recognized once the service has been provided.

In 2018, the Group received €624,000 in grants, compared to €279,000 in 2017.

Current provisions for contingencies break down as follows:

In thousands of euros	Warranties	Others	Total
At January 1, 2017	492	-	**492**
- Increase in provision	818	150	**968**
- Used amounts reversed	(775)	-	**(775)**
- Unused amounts reversed	-	-	**-**
- Currency translation gains or losses	-	-	**-**
At December 31, 2017	**535**	**150**	**685**
At January 1, 2018	535	150	**685**
- Increase in provision	707	-	**707**
- Used amounts reversed	(806)	-	**(806)**
- Unused amounts reversed	-	-	**-**
- Currency translation gains or losses	-	-	**-**
At December 31, 2018	**436**	**150**	**586**

At the reporting date, the provisions for contingencies included in particular provisions for warranties that were current provisions. In fact, the sales made by the Group are subject to a one-year warranty period. The measurement of the cost of the warranty as well as the probability that these costs will be incurred is based on an analysis of historic data. The provision corresponds to the number of months remaining on existing warranties at the reporting date for all equipment sold. Additions and reversals on the provision for warranties given to clients are recorded in the income statement within direct cost of sales.

The provision for retirement pay is fully presented in non-current liabilities (see Note 19).

23. Financial instruments by category

The accounting policies for financial instruments have been applied to the line items below.
The fair value of financial instruments traded on an active market, such as short-term marketable securities, is based on the market price at the reporting date. Market prices used for the Company's financial assets are the buy prices on the market at the valuation date. The nominal value, less provisions for write-down of current receivables and payables is assumed to approximate the fair value of these elements, as it does for variable rate financial debts.

At December 31, 2018:

In thousands of euros	Loans and receivables at amortized cost	Financial assets at fair value through profit and loss	Total
Securities and cash pledged	-	163	163
Deposits paid	187	-	187
Trade receivables	10,176	-	10,176
Assets provided for the liquidity agreement	-	65	65
Cash and cash equivalents	-	8,593	8,593
Total December 31, 2018	**10,363**	**8,821**	**19,184**
	Liabilities at fair value through profit and loss	**Financial liabilities valuated at amortized cost**	**Total**
Trade payables and related	-	6,702	6,702
Bond issue	1,167	14,325	14,325
Lease liabilities	-	443	443
Short-term debt	-	8,789	8,789
Repayable advances	-	1,760	1,760
Total December 31, 2018	**1,167**	**30,852**	**32,019**

At December 31, 2017:

In thousands of euros	Loans and receivables at amortized cost	Financial assets at fair value through profit and loss	Total
Securities and cash pledged	-	163	163
Deposits paid	174	-	175
Trade receivables	8,680	-	8,680
Assets provided for the liquidity agreement	-	97	97
Cash and cash equivalents	-	19,017	19,017
Total December 31, 2017	**8,854**	**19,277**	**28,132**
	Liabilities at fair value through profit and loss	**Financial liabilities valuated at amortized cost**	**Total**
Trade payables and related	-	5,704	5,704
Bond issue	514	10,507	11,020
Short-term debt	-	5,860	5,860
Repayable advances	-	1,448	1,448
Total December 31, 2017	**514**	**23,518**	**24,032**

24. Analytical reclassification

The Group elected to refine the previous analytical approach. As a result, a series of reclassifications were made to the comparative financial statements at December 31, 2017 as originally reported, in order to better reflect the company's business activities.

The table below presents the impact of these reclassifications on the comparative half-yearly consolidated financial statements at December 31, 2017:

In thousands of euros	December 31, 2017 published	Analytical reclassifications	December 31, 2017 adjusted
Revenue	24,695	-	24,695
Other income	-	-	-
Revenue	**24,695**	**-**	**24,695**
Cost of sales	(13,608)	-	(13,608)
Gross margin	**11,088**	**-**	**11,088**
Gross margin on revenue	**11,088**	**-**	**11,088**
Gross margin as a % of revenue	***44.9%***		***44.9%***
Research and development expenses	(2,558)	507	(2,051)
Selling and marketing expenses	(12,341)	609	(11,732)
General and administrative expenses	(5,775)	676	(5,099)
Operating expenses	-	(1,791)	(1,791)
Other operating income/(expenses)	(294)	-	(294)
Current operating income (loss)	**(9,880)**	**-**	**(9,880)**
Other non-current operating income/(expenses)	-		-
Operating income (loss)	**(9,880)**	**-**	**(9,880)**

The Operations Department now contains the purchasing, logistics, sales administration, customer satisfaction, product launch and service departments.

- The purchasing, logistics and customer satisfaction departments that were previously presented under overheads are now presented under the Operations group. The amount reclassified at December 31, 2017 was €676,000.
- The Group's Service division and the sales administration department were previously recognized under sales and marketing expenses but are now presented under the Operations group. The amount reclassified at December 31 was €609,000.
- The product launch department, previously presented under research and development expenses is now presented under the Operations group. The amount reclassified at December 31, 2017 was €507,000.

25. Cost of sales

The gross margin for the previous two years breaks down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Revenue from Products	20,653	21,827
Revenue from Services	3,637	2,869
Other income	338	-
Total revenue	**24,628**	**24,695**
Cost of sales	(13,530)	(13,608)
Gross margin on total revenue	**11,098**	**11,088**
Gross margin as a % of total revenue	*45.1%*	*44.9%*
Gross margin on revenue	**10,760**	**11,088**
Gross margin as a % of revenue	*44.3%*	*44.9%*

The gross margin on total revenue represents total revenue (€24.628 million) minus the cost of sales (€13.530 million).

Unlike in the previous fiscal year which did not generate other revenue, €338,000 was recognized under other revenue in 2018 from an industrial partnership agreement.

The gross margin on revenue represents revenue less cost of sales, i.e. €10.760 million in 2018, and €11.088 million in 2017.

26. Research and development expenses

Research and development expenses break down as follows (excluding research and development expenses capitalized as intangible assets):

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017*
Personnel	744	612
Fees, External Services	410	346
Travel expenses and entertainment	45	68
Depreciation, amortization & provisions	1,956	1,888
Purchases and consumables	221	(21)
Others	174	161
Subtotal expenses	**3,550**	**3,054**
Operating grants	(186)	(932)
Research Tax Credit	(186)	(71)
Subtotal income	**(372)**	**(1,002)**
Total	**3,178**	**2,051**

**Changes were made to the presentation of the income statement. As a result, the details presented above at December 31, 2017 differ from what was published at December 31, 2017. See details in Note 24.*

Total research and development expenses break down as follows including research and development expenses capitalized as intangible assets:

In thousands of euros	R&D expenses	Capitalized expenses	Total Expenditures
Personnel	744	3,424	4,168
Fees, External Services	410	442	852
Travel expenses and entertainment	45	112	157
Depreciation, amortization & provisions	1,956	449	2,404
Purchases and consumables	221	245	466
Others	174	223	397
Subtotal expenses	**3,550**	**4,895**	**8,445**
Operating grants	(186)	-	(186)
Research Tax Credit	(186)	(1,661)	(1,846)
Subtotal income	**(372)**	**(1,661)**	**(2,033)**
Total	**3,178**	**3,234**	**6,412**

In 2017:

In thousands of euros	R&D expenses	Capitalized expenses	Total Expenditures
Personnel	612	3,365	3,977
Fees, External Services	346	1,872	2,218
Travel expenses and entertainment	68	61	129
Depreciation, amortization & provisions	1,888	393	2,281
Purchases and consumables	(21)	344	323
Others	161	191	352
Subtotal expenses	**3,054**	**6,228**	**9,280**
Operating grants	(932)	(354)	(1,286)
Tax credits and innovation tax credits	(71)	(2,077)	(2,147)
Subtotal income	**(1,002)**	**(2,431)**	**(3,433)**
Total	**2,051**	**3,797**	**5,848**

27. Selling and marketing expenses

Selling and marketing expenses break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017*
Personnel	5,546	5,707
Fees, External Services	2,152	2,276
Travel expenses and entertainment	2,649	2,509
Depreciation, amortization & provisions	694	381
Others	643	860
Total	**11,685**	**11,732**

**Changes were made to the presentation of the income statement. As a result, the details presented above at December 31, 2017 differ from what was published at December 31, 2017. See details in Note 24.*

28. General and administrative expenses

General and administrative expenses break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017*
Personnel	2,213	2,614
Fees, External Services	1,668	1,881
Travel expenses and entertainment	175	124
Depreciation, amortization & provisions	421	192
Others	(104)	289
Total	**4,374**	**5,099**

**Changes were made to the presentation of the income statement. As a result, the details presented above at December 31, 2017 differ from what was published at December 31, 2017. See details in Note 24.*

29. Operating expenses

The operating department's expenses break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Personnel	1,067	1,206
Fees, External Services	223	238
Travel expenses and entertainment	47	68
Depreciation, amortization & provisions	59	71
Others	101	208
Total	**1,497**	**1,791**

The company wanted to track and present the Operations group. This Group mainly encompasses the company's industrial arm.

Its function breaks down as follows:

- Define the industrial manufacturing policy in line with the company's overall strategy
- Make investment decisions regarding the production system
- Optimize the means of production across the company: oversee the implementation of an IT system, develop synergies between production sites, etc.
- Enter into industrial partnerships
- Oversee the company's purchasing and industrial outsourcing policy

Operating expenses mainly include the costs of the following departments: purchasing, logistics, customer satisfaction, sales administration and the Group's Service division.

30. Other operating income/(expenses)

Other operating income (expenses) break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Customer provisions	(420)	(265)
Miscellaneous	-	(155)
Other operating expenses	**(420)**	**(420)**
Reversal of used customer provisions	-	-
Reversal of unused customer provisions	265	127
Foreign exchange gains on operations	176	-
Miscellaneous	-	(1)
Other operating income	**441**	**126**
Other operating income and expenses	**21**	**(294)**

31. Other non-current operating income/(expenses)

Other non-current operating income/(expenses) are recognized using the methods described in Note 3.27 for the determination of non-current operating income.

In 2018, this involves an exceptional expense mainly related to external costs incurred in connection with the dispute described in Note 38 presented below.

32. Operating expenses by type

Operating expenses by type break down as follows (excluding research and development expenses capitalized as intangible assets; see details in Note 26):

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Purchases including inventory variations	10,424	11,934
Depreciation and amortization	2,664	2,352
Salaries and other short-term employee benefits	8,202	8,647
Social security costs	2,489	2,514
Taxes	583	659
Subcontracting	710	140
External services	2,228	1,973
Travel expenses and entertainment	2,313	2,164
Buildings and office leases	56	676
Advertising, promotion and trade shows	928	921
Fees, commissions and royalties	4,328	3,123
Grants and research tax credits	(381)	(1,017)
Additions and reversals of provisions	933	(215)
Others	439	704
Total	**35,918**	**34,576**

33. Employee benefit expenses

Employee benefit expenses break down as follows (excluding research and development expenses capitalized as intangible assets, see details in Note 26):

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Salaries and other short-term employee benefits	7,979	8,334
Social security costs	2,489	2,514
Share-based payments	223	313
Retirement obligations	84	(9)
Total	**10,775**	**11,152**

At December 31, 2018, the Group employed 179 people, compared to 172 at December 31, 2017.

34. Financial income and expenses

Financial income and expenses break down as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Foreign exchange losses	-	(400)
Interest	(1,960)	(2,010)
Financial expenses	**(1,960)**	**(2,410)**
Foreign exchange gains	-	-
Interest	16	6
Financial income	**16**	**6**
Financial income (loss)	**(1,944)**	**(2,405)**

Financial income is stable excluding foreign exchange gains and losses. 2018 saw a €1.944 million loss compared with €2.405 million in 2017, a €461 thousand improvement, mainly due to the financial foreign exchange loss at 12.31.17.

35. Income tax expense

The amount of tax on Group income is different from the theoretical amount which would result from the tax rate calculated based on the tax rates applicable in France for the reasons set out in the table below.

Deferred tax assets not recognized at December 31, 2018 amounted to €50.137 million (compared to €48.973 million at December 31, 2017). They included €41.658 million corresponding to the tax effect on the loss carry-forwards of the French entity, and €8.494 million on loss carry-forwards from foreign subsidiaries, primarily corresponding to the U.S. subsidiary. The deferred tax asset balances were not capitalized in accordance with the principles described in Note 3.25.

In France, the use of these tax losses is capped at 50% of the taxable profit of the period. This limit is applicable to the part of profit above €1 million. The unused balance of the tax losses is carried forward to the following periods and is usable under the same conditions with no time limit.

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Income (loss) before tax	(13,234)	(12,285)
Tax calculated based on the tax rate applicable at the parent company (34.43%)	(4,556)	(4,230)
Tax effect on:		
Loss carry-forwards for the period not capitalized and assets not recorded for temporary differences	5,272	5,133
Research tax credit not subject to income tax	(816)	(739)
Non tax-deductible share based payment	77	108
Flat-rate taxation of the representation office in China	12	142
Capital increase expenses allotted to the share premium	-	(271)
Other permanent differences	-	(103)
Differences in tax rates	72	(169)
Effective income tax expense (income)	**61**	**(38)**

36. Earnings per share

36.1. Basic

Basic earnings per share are calculated by dividing the net profit attributable to equity holders of the Company by the weighted average number of shares outstanding during the year:

	Dec. 31, 2018	Dec. 31, 2017
Loss attributable to equity holders of the Company (in thousands of euros)	(13,294)	(12,247)
Weighted average number of ordinary shares outstanding	23,364,233	20,120,838
Weighted average number of treasury shares	(96,785)	(76,673)
Weighted average number of ordinary shares used to calculate basic earnings per share	23,267,448	20,044,165
Basic earnings per share (in euros)	**(0.57)**	**(0.61)**

36.2. Diluted

Potentially dilutive instruments are described in Note 17 (breakdown of the remaining number outstanding, as well as the number exercisable at December 31 for the last two years), and in Note 18 for the issuance of bonds with warrants (OBSA) and bonds convertible into shares with warrants (OCABSA). During the periods presented, the equity instruments granting deferred access to capital (founders' warrants, warrants, stock options, free shares, etc.) are considered anti-dilutive, as they lead to a reduction in the loss per share. As such, the diluted earnings per share are identical to the basic earnings per share.

37. Licensing agreements

37.1. Licenses acquired or adopted

When it was incorporated, the Group entered into licensing agreements on basic patents.

During the second round of funding in 2008, the Group acquired licensed CNRS patents upon their creation, and the share of the CNRS patents taken in co-ownership arising from the collaborative framework contract with the CNRS (contract from 2006 to 2008). These agreements also provide for the payment of royalties.

In 2014, the Company signed a new non-exclusive international licensing agreement for the entire portfolio of patents of a major industry player in the area of ultrasound medical imaging methods and equipment.

Within the framework of this contract, an initial exceptional payment was made and recorded under Other non-current expenses in 2014.

The Group is currently committed to paying royalties, the amount of which is indexed to a portion of its revenue, with the expense being recorded under the Cost of Sales line item.

37.2. Licenses granted

On March 3, 2014, the Group signed a reciprocal agreement with an industrial player. Under this agreement, the Group granted it access to its technology, along with limits to applications under specific conditions of use. In accordance with IFRS, all these royalties were recognized in "Other income" in 2014. This player also agreed not to enforce the medical ultrasound imaging patents that it owns against the Company.

No other license has since been granted.

38. Contingent liability related to ongoing operations

On November 22, 2017, Verasonics Inc filed a lawsuit in the U.S. District Court for the Western District of Washington in which it alleged that SuperSonic Imagine had infringed three of its U.S. patents and asserted trade secrets.
SuperSonic Imagine rejects these claims and will vigorously defend itself.
SuperSonic Imagine intends to challenge the validity and legitimacy of the asserted intellectual property.
Given that the Company disputes this claim and that there is little evidence at December 31, 2018, no provision has been funded.

39. Commitments

39.1. Investments

Fixed asset orders contracted for but not yet incurred are not significant.

39.2. Pledges given

To guarantee all the Company's obligations under the Kreos Tranches 1 to 3 bond issuance agreement (see Note 18.2), the Company granted a series of sureties to Kreos in the event of an unresolved Event of Default:

- Pledge of bank account balances;
- Pledge of trade receivables;
- Pledge of Intellectual Property Rights (brands, patents, software) of certain families;
- Non-possessory pledge of inventory (excluding certain items decided by the Company, for a maximum of €500,000 and including demonstration equipment).

And up to the date of payment in full of all sums due under the Venture Loan.

Pledge of marketable securities:
Marketable securities amounting to €51,000 have been pledged to BNP Paribas Real Estate as a deposit on the rent for the Aix-en-Provence business premises. This guarantee was given for a period of nine years and will end on September 30, 2024.

39.3. Other commitments given

Icare repayable advance:
The Company received a repayable Bpifrance advance for €863,000 for the Icare program and a grant for the amount of €1.775 million.
The initial contract stipulated that the advance will be repaid according to the future sales of products from the project, up to the fiscal year ending in 2022. Repayments may therefore exceed the nominal amount received.
In the 2017 fiscal year, the Company had reached an agreement with Bpifrance, which is funding this program, in particular regarding the revenue base to be considered for future payments, since part of the initial objectives have not been achieved.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet for the interest portion.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet at 25% of the repayable advance received.

TUCE repayable advance:
A non-interest bearing repayable advance was granted, for a total of €0.4 million for the TUCE program, including €77,000 received on June 26, 2012, €242,000 received on July 1, 2015, €27,000 on June 13, 2016 and €61,000 on July 5, 2017. The repayments will be based on future sales of products from this project, and may thus exceed the nominal amount received, but in the absence of a reliable estimate of the amount to be paid until 2023, this amount is not recorded in the balance sheet.

Business France:
A repayable advance under the "Export+ santé Cosmétique" program covering up to 50% of the total amount of filing and certification costs with €200,000 being awarded. This program is meant to support corporate growth. A €15,000 advance was paid on December 21, 2016.
The repayments plus a 7.5% surcharge will be made if within 18 months to 3 years from certification, revenue from the products and country in question is equal to or more than double the amount of expenses the advance helped finance.

Financing by assignment of receivables:
The assignment of receivables arranged in December 2016 with a securitization fund enabled the pre-financing of 67% of the 2018 RTC at December 31, 2018, for a total of €1.6 million.

In January 2017, the company also put in place a trade receivables factoring agreement that was tacitly renewed.
At December 31, 2018, the outstanding amount presented under financial debts stood at €3.2 million.

39.4. Commitments received

The amount of trade receivables at the reporting date is subject to a reservation of title clause included in the general terms and conditions of sale, to the Group's benefit.

As the Group benefits from the assistance of OSEO in the financing of its Research and Development activities, it received commitments to finance a part of its future work in the form of operating grants and repayable advances:

- Commitments and income received for grants break down as follows:

In thousands of euros	Grants received				Amount of grant on contract	Balance receivable
	Before 2017	2017	2018	Cumulative total		
ICARE – OSEO	1,775		354	**2,129**	2,838	709*
DARMUS – DGA	645			**645**	645	
CARDIO – ANR	215			**215**	215	
TUCCIRM – ANR	126			**126**	126	
Elastobus – OSEO	454			**454**	454	
TUCE – OSEO	1,027	181		**1,208**	1,208	
Micro Elasto – ANR	181			**181**	186	4
PLIK – OSEO	54			**54**	133	79
PLIK –Pays d'Aix	25			**25**	80	55
PLIK – PACA					80	80
BITHUM – ANR	94	18		**112**	118	6
IDITOP – OSEO	268		67	**335**	335	
IDITOP – PACA	219		31	**250**	250	0
Cartographics – INCA INSERM	133			**133**	133	
Capacity – BPI SOLUS	197		147	**344**	408	64
Ultra Fast 4D-ANR	92			**92**	306	214
RHU STOP AS		80	25	**105**	203	98
Total	**5,505**	**279**	**624**	**6,407**	**7,716**	**1,309**

** Icare grant: see Section 39.3 above, the outstanding amount of the grant will likely never be obtained.*

- The commitments received relating to the repayable advances break down as follows:

In thousands of euros	Balance at Dec. 31, 2017	Advances received	Repayments	Balance at Dec. 31, 2018	Amount of grant on contract	Outstanding amounts to be received
Business France	15			15	200	185*
ICARE – BPI	1,026	274		1,300	3,039	1,739
TUCE – BPI	407			407	407	
Total	**1,448**	**274**		**1,722**	**3,646**	**1,924**

** Icare contingent advance: see Section 39.3 above, the remainder of the advance will likely never be paid.*

Related-party transactions

Key management compensation

The key managers are the members of the Management Board and of the Supervisory Board (to May 28, 2018) and of the Board of Directors and Senior Management (since May 28, 2018), executive and non-executive.

The only items of compensation, indemnities or benefits due or likely to be due as a result of the assumption, termination or change in functions of corporate officers are described below; the Company has not provided for them elsewhere.

The Chief Executive Officer enjoys, subject to performance conditions, a severance benefit in the event she is forced out of office, equal to a maximum of twelve months of gross remuneration (fixed and variable) namely €400,000 if all objectives have been met.

The benefit shall not be due in the event of dismissal for gross negligence or willful misconduct (as these terms are construed in the case law of the labor chamber of the Court of Cassation), resignation or where the Chief Executive Officer exercises her right to retire.

The performance conditions must be assessed by the Board of Directors at the end of each fiscal year on the basis of the aforementioned criteria. The twelve most recent months taken into consideration

will be the twelve most recent months published prior to the event triggering the payment of said benefit.

The compensation paid or payable is as follows:

In thousands of euros	2018	2017
Salaries and other short-term employee benefits	589	1,596
Directors' attendance fees	30	61
Share-based payments	36	210
Total	**655**	**1,866**

Other related parties
The Group has no related parties other than the members of the Board of Directors.

40. Events after the reporting date

None.

41. Consolidated entities

The consolidated financial statements at December 31, 2018 include the accounts of SuperSonic Imagine, the parent company, and the following entities:

Country	Company	Dec. 31, 2018	Dec. 31, 2017
France	SuperSonic Imagine	Parent company	Parent company
USA	SuperSonic Imagine, Inc.	100%	100%
UK	SuperSonic Imagine Ltd	100%	100%
Germany	SuperSonic Imagine, GmbH	100%	100%
Italy	SuperSonic Imagine Srl	100%	100%
China	SuperSonic Imagine (Shanghai) Medical Devices Co. Ltd	100%	100%
China	SuperSonic Imagine (H.K.) Limited	100%	100%

During the last two fiscal years, the Group did not acquire any companies.

There is no restriction on the auditing of subsidiaries which are fully owned and entirely controlled by the parent company.

The statutory accounts of the UK subsidiary SuperSonic Imagine Ltd will not be audited for their annual reporting date at March 31, 2019. In fact, the company will make use of the audit exemption in the UK, pursuant to S479A of the Companies Act 2006, which it is permitted to use insofar as the accounts of the SuperSonic Imagine Ltd subsidiary are consolidated in these financial statements, which are audited by the Group's auditors.

42. Statutory Auditors' fees

Statutory auditors' fees in the income statement for the fiscal year break down as follows:

Statutory Auditors' fees for fiscal year 2018 *In euros excluding VAT*	Ernst & Young et Autres	AresXpert Audit
Certification of the separate and consolidated financial statements and review	88,000	37,000
Services other than statutory auditing	26,105	4,000
Total	**105**	**41,000**

20.2. PROFORMA FINANCIAL INFORMATION

Not applicable.

20.3. ANNUAL PARENT COMPANY FINANCIAL STATEMENTS OF SUPERSONIC IMAGINE S.A.

BALANCE SHEET

In thousands of euros	Notes	Gross	Amortization, depreciation & impairment	December 31, 2018 (Net)	December 31, 2017 (Net)
Intangible assets	2	27,812	(11,419)	16,393	14,502
Property, plant and equipment	3	13,622	(8,866)	4,756	4,331
Financial assets	4	40,065	(37,378)	2,687	2,274
Total non-current assets		**81,499**	**(57,664)**	**23,836**	**21,107**
Inventories	5	8,001	(2,246)	5,755	4,255
Trade receivables	6	6,498	(1,757)	4,741	4,327
Other receivables	7	3,868	(1,002)	2,865	3,480
Marketable securities	8	163	-	163	163
Cash on hand	8	7,800	-	7,800	17,602
Total current assets		**26,330**	**(5,005)**	**21,324**	**29,826**
Prepaid expenses	9.2	191	-	191	257
Deferred expenses	9.2	480	-	480	733
Unrealized foreign exchange losses	9.1	2,235	-	2,235	621
Total accruals		**2,905**	-	**2,906**	**1,611**
Total assets		110,734	(62,669)	48,066	52,544

In thousands of euros	Notes	December 31, 2018	December 31, 2017
Share Capital	12.1	2,342	2,321
Share premiums	12.1	20,145	30,300
Regulated reserves		(8)	(8)
Retained earnings (losses)		-	-
Profit (loss) for the year		(13,597)	(10,192)
Regulated provisions		(2)	(2)
Total shareholders' equity	**12**	**8,880**	**22,419**
Contingent advances	15	1,864	1,552
Provisions for contingencies	16	2,844	1,341
Convertible bonds	14	14,623	11,378
Loans and other financial debts	17	6,449	5,032
Advances and deposits received on current orders		55	139
Trade payables		6,728	5,798
Tax & corporate debts	18	2,518	2,885
Other debts		1	1
Total debts		**35,082**	**28,126**
Deferred revenue	20	949	712
Unrealized foreign exchange gains	9.1	3,152	1,288
Total accruals		**4,101**	**2,000**
Total liabilities		48,064	52,544

INCOME STATEMENT

(In thousands of euros)	Notes	December 31, 2018	December 31, 2017
Sale of merchandise		435	406
Production sold (goods)		20,548	20,923
Production sold (services)		2,368	2,506
Revenue	**21.1**	**23,352**	**23,835**
Inventories		1,294	-
Capitalized production		3,700	4,310
Operating grants		195	705
Reversals of depreciations, amortizations and provisions, transfers of expenses		2,222	2,633
Other income	21.5.2	659	1
Operating income		**31,422**	**31,483**
Purchase of goods and raw materials		12,392	11,483
Changes in inventory		(1,058)	634
Other purchases and external expenses		14,631	12,784
Taxes and similar payments		251	315
Salaries and other short-term employee benefits		7,326	7,402
Social security costs		3,009	2,997
Amortization and depreciation of fixed assets	**2 and 3**	2,677	2,715
Provisions for current assets		2,520	1,746
Provisions for contingencies	**16**	707	818
Other expenses		831	703
Operating expenses		**43,285**	**41,597**
Operating income		**(11,862)**	**(10,115)**
Financial income from investments	21.3	172	153
Other interest and similar income	21.3	370	3
Reversals of provisions and transfers of expenses	21.3	522	151
Foreign exchange gains	21.3	-	443
Financial income	**21.3**	**1,064**	**751**
Financial allocations to depreciation, amortization and provisions	21.3	3,680	938
Interest and similar expenses	21.3	1,432	1,625
Foreign exchange losses	21.3	-	855
Financial expenses	**21.3**	**5,112**	**3,418**
Financial income (loss)	**21.3**	**(4,048)**	**(2,667)**
Exceptional income from management operations	21.4	60	655
Exceptional income from capital operations	21.4	-	-
Reversals of provisions and transfers of expenses	21.4	-	-
Exceptional income	**21.4**	**60**	**655**
Exceptional expenses from management operations	21.4	107	44
Exceptional expenses from capital operations	21.4	(4)	-
Exceptional allocations to depreciation, amortization and provisions	21.4	-	150
Exceptional expenses	**21.4**	**103**	**194**
Exceptional income	**21.4**	**(43)**	**460**
Income tax	28	(2,356)	(2,129)
Net income (loss)		**(13,597)**	**(10,192)**

TABLE OF CONTENTS – NOTES

1. General Information and Accounting Policies

The fiscal year is 12 months long and covers the period from January 1 to December 31, 2018.
The notes and tables below form an integral part of the Annual Financial Statements.

1.1. General Information

1.1.1. Presentation of the Company

SuperSonic Imagine ("the Company") is specialized in research and development, as well as in the sale of ultrasound medical imaging systems.
In 2009, it put on the market a 3rd generation ultrasound device called Aixplorer®, with a radically new, entirely software-based architecture that integrates several technological innovations. For this purpose, it has developed the related software (which forms an integral part of its Aixplorer® ultrasound system), allowing breast, thyroid, prostate, liver and abdominal lesions to be diagnosed in real time by measuring tissue elasticity (elastography).
In 2018, Supersonic Imagine launched the next generation of Aixplorer: the MACH 30. Its enhanced performance, refined functional design and greater ease of use have already won over countless practitioners.

The Group owns or co-owns numerous patents which it developed, acquired or operates under license.
The Company subcontracts production of the ultrasound systems it sells.
SuperSonic Imagine and its subsidiaries have sold the products of the Aixplorer® range since 2009.
As part of its international development, the Company has created six distribution subsidiaries in the following countries:

- SuperSonic Imagine Inc., USA in March 2007;
- SuperSonic Imagine GmbH, Germany, in March 2008;
- SuperSonic Imagine Ltd., United Kingdom, in March 2008;
- SuperSonic Imagine Srl, Italy, in October 2009;
- SuperSonic Imagine (H.K) Limited, China, in June 2011;
- SuperSonic Imagine (Shanghai) Medical Devices Co. Ltd, China in December 2015.

The Company also has a representative office based in Beijing, comprising a team of over 30 people, responsible for coordinating the local distributor network.

The Company is a limited company (*société anonyme*) with a Board of Directors incorporated in France. Its headquarters are registered at Jardins de la Duranne, 510 rue René Descartes, 13290 Aix-en-Provence, France. It is registered in the Trade and Companies Register of Aix-en-Provence under the number 481 581 890 and listed on Euronext Paris (ISIN FR0010526814).

1.1.2. Key Events of the Year

1.1.2.1. COMMERCIAL SPHERE

Revenue for the fiscal year totaled €23.4 million, down slightly (-2%) due to the period of transition between the two product generations.
2018 was in fact a pivotal year for SuperSonic Imagine with the release in September 2018 of the new Aixplorer MACH 30 platform, the latest member of the Aixplorer® range. Aixplorer MACH® 30 introduces a new generation of UltraFast™ imaging that allows the optimization of all innovative imaging modes: ShearWave PLUS, UltraFast™ Doppler, Angio PL.U.S, TriVu.

Following clearance from the FDA in June 2018, the company obtained the CE mark in July 2018.
The 2% fall in sales in 2018 was due to customers waiting to make purchases in anticipation of the launch of the MACH 30, as well as the time required to do clinical site demonstrations of the new product. Demonstrations of Aixplorer MACH 30 only started in mid-October.
Aixplorer MACH 30 accounted for over 60% of the products sold in Q4 2018 (excluding China).

Moreover, Supersonic Imagine signed its first industrial partnership agreement with a U.S. company in 2018, with the first revenue from this new activity amounting to €0.3 million.

1.1.2.2. FINANCIAL DEVELOPMENTS

New bond issue for Kreos Capital V (UK) Limited ("Kreos")
In 2017, the company had issued a total of €12 million in bonds to Kreos (€6 million in March 2017 and €6 million in December 2017) in the form of bonds with warrants (*Obligations à bons de souscription d'actions*).
On December 13, 2018, a new €12 million financing agreement was signed with Kreos comprising two €6 million tranches, each of which had €4.8 million in plain vanilla bonds and €1.2 million in convertible bonds with warrants (OCABSA).
The first €6 million tranche was subscribed by Kreos on December 13, 2018.
Terms and conditions of the loan can be found in Note 14.

Issue of a €2 million loan from Bpifrance
A 7-year €2 million loan was obtained from BPI in December 2018.

This financing will allow the company to accelerate its growth in its strategic markets (China, United States and France) strongly underpinning the launch of the new Aixplorer MACH 30 platform.

1.1.2.3. CORPORATE GOVERNANCE

Corporate governance – Board of Directors
SuperSonic Imagine's governance structure was changed at the Shareholders' Meeting of May 28, 2018. The company is now governed by a Board of Directors rather than by the Management Board and the Supervisory Board.

The Board of Directors has six directors who were formerly members of the Supervisory Board: Michaël Brock, Alexia Perouse, Sabine Lochmann, Mérieux Participations represented by Thierry Chignon, Bpifrance Investissement represented by Philippe Boucheron and Guy Frija.
The Board of Directors is chaired by Michaël Brock.
Michèle Lesieur is the company's Chief Executive Officer.

1.2. Accounting principles

a) Going concern

The financial statements have been prepared on a going concern basis, bearing in mind the following elements:

- The Company's historical loss-making situation may be explained by the innovative nature of the products developed, which involve several years of research and development, and by

funding of its sales force. The Company has been in the active marketing phase of its products since 2009;
- Available cash stood at €8 million at December 31, 2018. The Company is now in a position to pre-finance its 2018 RTC annually and factor its trade receivables for up to €5 million;
- The Group considers that it needs further funding sources to be able to cover all operating activities and investments planned for the 12 months following the reporting date of these financial statements;
- To have the necessary financial resources and underpin its development and growth, the company is currently negotiating with various financial partners regarding possible further new funding options. It has, for example, the option of issuing a €6 million Kreos Tranche 4 by September 2019 (signed in December 2018 and subject to certain conditions).

b) Accounting principles and methods

The financial statements have been presented in euros.
The general accounting conventions were applied, in accordance with the conservatism principle, and in conformity with the basic assumptions – going concern basis, independence of fiscal years, continuity of accounting methods from one year to the next – and in accordance with the general rules for preparing and presenting annual financial statements in France, pursuant to ANC Regulation 2014-03.
The basic method used to evaluate the items recorded in the accounting is the historical cost basis.

The main methods used are as follows:

1.2.1. Intangible assets

Patents and licenses
The technologies acquired are recorded at acquisition cost, excluding the costs incurred in their acquisition.
In the case of payments taking the form of future royalties, a debt corresponding to the discounted future payments is recorded in debts, against the cost of the acquisition, if the future royalties can be reliably estimated.
Acquired technologies are amortized in the income statement to the extent they are used for research projects. The amortization rate is determined on the basis of the term of legal protection for each technology.
When an acquired technology is no longer used, the corresponding gross amount and cumulative depreciation is removed from the balance sheet.

Research and development
Research charges are expensed as incurred.
The expenses corresponding to project developments – design and testing of new or improved solutions – are recognized as an intangible asset when the following criteria are met:
- The Company has the intention, financial capacity and technical capacity to complete the development project.
- The Company has the resources necessary to finish the development and to use or market the product developed.
- There is a high probability that the future economic benefits attributable to the products developed will flow to the Company.
- The expenditure attributable to the intangible asset during its development can be reliably measured.

Development expenses which do not meet the criteria are recognized as an expense for the period.

Capitalized development, which is principally composed of employee expenses, is amortized in the income statement upon the commissioning of the product, under the line "Amortization and depreciation of fixed assets" on a straight-line basis over the estimated residual life of the product. This estimated remaining life is reviewed at each year-end.

Other intangible assets
Other intangible assets correspond to acquired software which is depreciated over 12 months, with the exception of the ERP which is depreciated over 5 years. Costs linked to the acquisition of software licenses are recorded as assets based on the costs incurred to acquire and put into service the software concerned.

1.2.2. Property, plant and equipment

The offices of the Company primarily consist of the registered office located in Aix-en-Provence (France), under a lease expiring on September 30, 2019.

Equipment primarily refers to the items dedicated to research and development activities.
Furniture and administrative equipment is primarily comprised of IT equipment and office furniture.

All property and equipment are stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

All repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Depreciation is calculated using the straight-line basis over the estimated useful lives as follows:

- Fixtures and fittings 3 to 10 years (Straight-line basis)
- Research equipment and materials 18 months to 5 years (Straight-line basis)
- Production equipment and materials 5 years (Straight-line basis)
- Furniture, office and IT equipment 3 to 5 years (Straight-line basis)

Residual values and useful lives are reviewed and adjusted if necessary at each reporting date.

1.2.3. Financial assets

Financial assets consist of securities, related receivables, deposits and securities paid.

Equity securities, as well as other capitalized securities, were evaluated at the price at which they were acquired, excluding the costs incurred for their acquisition. In the event of a disposal affecting all securities of the same nature which grant the same rights, the starting value of the securities disposed was estimated at the weighted average purchase price. A write-down may, where appropriate, be recorded to take the present value into account.

Capitalized receivables were recorded in the Company's assets at their nominal value. A write-down may, where appropriate, be recorded to take the present value into account.

The present value of the equity investments and related receivables is estimated according to the amount of equity of the subsidiaries at year-end, along with their forecast performance for the upcoming years.

1.2.4. Inventories

Given the fact that the production of Aixplorer® products is outsourced, the Company mainly holds inventories of finished goods and spare parts as well as demonstration equipment to be sold.

Inventory is evaluated at the purchase price and recorded according to the FIFO method. Impairment is recognized for references whose net realizable value is lower than the carrying amount.

Inventories are reduced to their present value if this is lower than their cost. Net realizable value represents the estimated sale price in normal conditions of activity, less cost of sales.

1.2.5. Receivables and payables

These are recorded at their nominal value. Receivables and payables denominated in foreign currency have been evaluated based on the most recent exchange rate known at the reporting date.

Receivables are written down where applicable, on a case-by-case basis, after the Company assesses the risk of non-recovery.

The financial payables for the two years presented include:

- ANR or Bpifrance repayable advances
- A three tranche bond issue subscribed by Kreos
- Two long-term loans from BPI.

1.2.6. Tax credit and other grants

The research tax credit (RTC) and the innovation tax credit (ITC) are provided by the French tax authorities to encourage companies to carry out scientific and technical research and for the design of prototypes or pilot installations of new products.

These tax credits are recorded when (i) the company can receive them irrespective of taxes paid or owed in the future, (ii) the costs corresponding to the eligible programs have been incurred, and (iii) supporting documentation is available.
These receivable tax credits are recorded in the balance sheet as “Other receivables”.
When the RTC is pre-financed by means of the assignment of receivables, the receivable is derecognized from the balance sheet.

The research tax credit and the innovation tax credit can be set against the corporate income tax due by the company for the year in which it incurred its research expenses, and if they cannot be set against corporate income taxes they are repaid to the company in fiscal year N+1 in light of its status as an SME in EU terms.

They are presented as a reduction to the tax expense.

In addition, grants may be available to companies that perform technical and scientific research. Such grants are typically subject to performance conditions over an extended period of time. The Company recognizes these grants in the income statement as “Operating Grants” (i) over the cost of the

corresponding research and development program and (ii) when confirmation of the grant has been received.

1.2.7. Tax Credit for Competitiveness and Employment (Crédit Impôt pour la Compétitivité et l'Emploi – CICE)

The competitiveness tax credit is a tax credit which was equal in 2018 to 6% of the gross compensation under 2.5 times the minimum wage (SMIC). The tax credit is allocated to corporate income tax or, for SMEs, reimbursed to the company if the tax credit exceeds the corporate income tax payable. The tax credit funds the company's competitiveness through investment efforts, R&D, training and recruitment.

The tax credit is presented less employee expenses. In 2018, it in particular helped finance expenditure on research and innovation.

1.2.8. Marketable securities

Investment securities, primarily consisting of money market funds (SICAVs), are recorded in assets at the historic purchase price, excluding the costs incurred to acquire them. In the case of a disposal affecting all securities of a given type granting the same rights, the capital gains from the disposal were assessed upon application of the FIFO (First-In First-Out) method.

1.2.9. Conversion of foreign currency items

Transactions in foreign currencies other than the euro are recorded at the most recent price known at the transaction date.

At year-end, the assets and liabilities denominated in foreign currencies are translated at the closing price. In case of unrealized losses (translation losses), a provision for exchange risks is established. Unrealized foreign exchange gains (translation gains) are not recorded in income.

For fiscal years 2017 and 2018, the Company has not used an exchange rate risk hedging instrument.

1.2.10. Provisions

Provisions for contingencies
Provisions correspond to commitments resulting from litigation and other risks, the maturity or amount of which are uncertain, which the Company may be faced with as part of its activities.
Provisions are recognized when the Company has a legal or implicit obligation to a third party as a result of past events, for which it is probable or certain that an outflow of resources to the third party will be required to settle the obligation, without at least an equivalent value expected to be received in exchange, and when future outflows of liquidity may be reliably estimated.
The amount recorded as a provision is the best estimate of the expense needed to settle an obligation.

Provision for warranties
Sales are subject to a one-year warranty period. The measurement of the cost of the warranty as well as the probability that these costs will be incurred is based on an analysis of historic data. The

provision corresponds to the number of months remaining on existing warranties at the reporting date for all equipment sold.

Future operating losses are not provided for.

1.2.11. Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of products and services in the ordinary course of the Group's activities. Revenue is shown net of value-added tax, returns and discounts and after eliminating sales within the Group.

The Group recognizes revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the Group and when specific criteria have been met for each of the Group's activities as described below.

For both sales by the distributors or through Group sales representatives, the accounting treatment of revenue remains the same, and in compliance with standards on revenue recognition:

- **Revenue from the sale of Aixplorer systems**
- The Group's products are generally sold through contracts or via purchase orders placed by customers which include fixed, determinable prices that do not contain a right of return or any significant post-delivery obligation, nor any other clause inducing deferred revenue. Revenue is recognized for products when title and risk are transferred, in accordance with Incoterms as defined in the contracts, when the price is fixed and determined, and collectability of the receivable is reasonably assured.
- Distributors of Aixplorer products do not benefit from any contractual right of return on acquired products beyond the statutory warranty of 12 months granted on products.

- **Revenue for services**
- Revenue for services (principally maintenance, after-sales service, warranty extensions) is recognized over the period when services are rendered and when collectability is reasonably assured.
- A warranty is included in each sale of an Aixplorer system (see Note 1.2.10). Only revenue relating to the warranty period exceeding one year is deferred and recorded as revenue during the period concerned. Warranties of one year or less are not sold separately. Revenue from multiple element arrangements, such as those including services is recognized as each element is earned based on the relative fair value of each element.

1.2.12. Other operating income

Other operating income includes income linked to the SuperSonic Imagine technological and industrial partnerships, which corresponds to a third source of income after sales of products and services. It corresponds to rights to access technology developed by the Company or to technology or industrial access partnerships.

This income corresponds to a limited number of contracts for which the proceeds are recognized according to the terms and conditions negotiated. Depending on the latter, the associated income may be fully recognized upon signing the contract or spread out over the periods concerned.

1.2.13. Earnings per share

Earnings per share are calculated by dividing the net income (loss) attributable to equity holders of the Company by the average number of shares issued net of treasury shares. Diluted earnings per share are computed by dividing net income attributable to equity holders of the Company by the average number of shares issued, adjusted for the effects of all dilutive potential shares.

Dilutive instruments are taken into account when, and only when, their dilutive effect decreases earnings per share or increases loss per share.

1.2.14. Loan issuance costs

Loan issuance costs are recorded in expenses, to be distributed and spread out over the term of the loan.

1.2.15. Staff retirement commitment

The Company has chosen not to record retirement commitments in the balance sheet, and to consider them to be off-balance sheet commitments.

1.2.16. Preparation of Consolidated Financial Statements

The Company is required to have its consolidated financial statements certified because it is listed on a regulated market. The Company thus prepares consolidated financial statements according to IFRS, wherein it is the Group's parent.

2. Intangible assets

As at December 31, 2018, aggregate gross development costs amounting to €24.007 million primarily related to developments of Aixplorer versions V3 to Ultimate (amortized on a straight-line basis to end-2020), as well as capitalized expenses for the next generation ultrasound system Aixplorer MACH 30 that came into service in September 2018.

In thousands of euros	Patent/Licenses and software	Development Costs	Total
Year ended December 31, 2017			
Opening amount	797	11,525	12,323
Acquisitions	166	4,151	4,316
Depreciation and amortization	(220)	(1,917)	(2,137)
Closing amount	**743**	**13,759**	**14,502**
At December 31, 2017			
Gross value	2,970	20,773	23,744
Cumulative amortization and depreciation	(2,228)	(7,014)	(9,242)
Net book value	**743**	**13,759**	**14,502**

In thousands of euros	Patent/Licenses and software	Development Costs	Total
Year ended December 31, 2018			
Opening amount	743	13,759	14,502
Acquisitions	834	3,234	4,068
Depreciation and amortization	(202)	(1,975)	(2,177)
Closing amount	**1,375**	**15,017**	**16,393**
At December 31, 2018			
Gross value	3,805	24,007	27,812
Cumulative amortization and depreciation	(2,430)	(8,990)	(11,419)
Net book value	**1,375**	**15,017**	**16,393**

The amount of internal development costs capitalized for the fiscal year stood at €3.234 million, wholly on the Aixplorer MACH 30.

Given that the usable life of the Aixplorer product was extended from end-2019 to end-2020, the remaining amortization schedule for the development costs of the Aixplorer product was accordingly changed, applied prospectively from July 1, 2018. This change in estimate had a €341,000 impact on allocations for the fiscal year (calculated as follows: 2018 allocation under the former amortization schedule: €2.047 million, 2018 allocation under the new amortization schedule: €1.707 million).
The new Aixplorer MACH 30 platform came into service in September 2018, the date it was first launched, and its useful life is set at 12 years.

3. Property, plant and equipment

In thousands of euros	Plant and industrial equipment	General installations, fittings, other fixtures	Office and IT equipment	Property, plant and equipment in progress	Total
Year ended December 31, 2017					
Opening amount	902	152	143	-	1,197
Acquisitions	3,657	15	40	-	3,712
Disposals	(67)	-	-	-	(67)
Transfers	-	-	-	-	-
Depreciation and amortization	(305)	(98)	(107)	-	(510)
Closing amount	**4,186**	**70**	**77**	**-**	**4,331**
At December 31, 2017					
Gross value	10,972	482	1,289	-	12,743
Cumulative amortization and depreciation	(6,786)	(413)	(1,214)	-	(8412)
Net book value	**4,186**	**70**	**77**	**-**	**4,331**

In thousands of euros	Plant and industrial equipment	General installations, fittings, other fixtures	Office and IT equipment	Property, plant and equipment in progress	Total
Year ended December 31, 2018					
Opening amount	4,186	70	77	-	4,332
Acquisitions	866	10	52	-	928
Disposals	-	-	-	-	-
Transfers	-	-	-	-	-
Depreciation and amortization	(390)	(53)	(61)	-	(504)
Closing amount	**4,662**	**27**	**69**	**-**	**4,756**
At December 31, 2018					
Gross value	11,789	492	1,341	-	13,622
Cumulative amortization and depreciation	(7,127)	(465)	(1,274)	-	(8,866)
Net book value	**4,662**	**27**	**69**	**-**	**4,756**

In 2017, the Company purchased research equipment and capitalized the Aixplorer® systems in order to use them for research purposes, for a total of €3.605 million. It acquired €52,000 in production equipment (test bench, control set, various tools, etc.).
In 2018, the Company mainly purchased research and production equipment (test bench, control set, various tools, etc.).

4. Financial assets

In thousands of euros	Equity securities	Other financial assets	Cash – Marketable securities pledged	Total
Year ended December 31, 2017				
Opening amount	1,401	247	2,000	3,648
Increases	0	1,278	-	1,278
Disposals	-	-	(2,000)	(2,000)
Reclassifications			-	-
Provision for impairment	151	(803)		(652)
Closing amount	**1,553**	**721**	**-**	**2,274**
At December 31, 2017				
Gross value	13,247	24,862	-	38,109
Cumulative impairment	(11,694)	(24,141)	-	(35,835)
Net book value	**1,553**	**721**	**-**	**2,274**

In thousands of euros	Equity securities	Other financial assets	Cash – Marketable securities pledged	Total
Year ended December 31, 2018				
Opening amount	1,553	721	-	2,274
Increases	-	1,956	-	1,956
Disposals	-	-	-	-
Reclassifications			-	-
Provision for impairment	168	(1,711)		(1,543)
Closing amount	**1,721**	**967**	**-**	**2,687**
At December 31, 2018				
Gross value	13,247	26,818	-	40,065
Cumulative impairment	(11,526)	(25,852)	-	(37,378)
Net book value	**1,721**	**967**	**-**	**2,687**

The securities and receivables vis-à-vis subsidiaries, except those for the Chinese subsidiary, were written off; their net realizable value not pointing to the short-term repayment of the advances granted. The €1.543 million aggregate provision for impairment mainly consists of the impairment of receivables vis-à-vis subsidiaries and a €168,000 reversal with respect to the securities of the Chinese subsidiary.
To the extent that the Company has not made commitments beyond the capital invested, no additional provision was recorded.

At December 31, 2018, the number of treasury shares held under the liquidity agreement was 110,931, in addition to €65,000 in cash.

As part of its Kreos bond issue, the company provided a security deposit of €194,000 during the fiscal year that will be returned upon payment of the final installment.
When arranging its €2 million loan from BPI in 2018, the company paid a €90,000 deposit that was refunded following payment of all sums due under this loan.

5. Inventories

In thousands of euros	December 31, 2018	December 31, 2017
Raw materials and spare parts	4,149	3,081
WIP and finished goods	2,198	1,210
Demonstration equipment	1,654	1,349
Total gross inventories	**8,001**	**5,640**
Impairment of inventories	(2,246)	(1,385)
Total Net Inventories	**5,755**	**4,255**

Impairment of inventories primarily corresponds to write-downs of items that were defective or returned by clients pending possible repair, as well as the straight-line impairment of demonstration equipment.

6. Trade receivables

In thousands of euros	December 31, 2018	December 31, 2017
Trade receivables, gross	6,498	5,869
Impairment	(1,757)	(1,541)
Trade receivables, net	**4,741**	**4,327**

- Chinese distributor:

In China, the Group had chosen to terminate the exclusive distribution agreement between it and its distributor in April 2013. The latter had disputed and blocked the payment of the amounts due, a total of €474,000.

On October 22, 2009, the Company signed an exclusive distribution agreement with its distributor for some of its products in China (excluding Taiwan, Hong Kong and Macao).
In April 2013, the Company terminated this agreement, in particular noting that its distributor had not achieved its contractual objectives. After discussion between the parties, the distributor summoned the Company before the Beijing Chaoyang district court, and the intermediate district court of Beijing, in particular asking to continue the contract and extend it, given its interruption during the discussions between the parties, and that the Company comply with its exclusivity arrangement, disputing to that end the Company's statements and the applicability of the contractual arbitration clause. In September 2013, the Company had commenced an arbitration proceeding before the International Chamber of Commerce for payment of amounts owed under the contract as well as for damages.

In October 2014, the Company won its case and the Chinese distributor was ordered to repay its debt as well as pay €1 million in principal for damage suffered by the Group. Provisions continue to be funded for the related assets (€474,000 in trade receivables and €1.002 million in income receivable), unchanged on December 31, 2014.
At the same time, the distributor's claims were dismissed.

At the reporting date of the 2018 Consolidated Financial Statements, proceedings for recovery have been launched and are ongoing.

- Brazilian distributors:

The receivables owed by the former Brazilian distributor for a total of €520,000 had been fully provisioned in 2013, the latter facing significant financial difficulties.
The same year, the Company had signed an exclusive agreement with a new distributor for the Brazilian market, which included a repayment schedule for the debt of the former distributor. This schedule was respected until August 2014, and the corresponding provisions returned for a total of €181,000.

In 2015, this new distributor faced cash flow issues, primarily due to the fall in the BRL vis-à-vis the euro (which fell 34% over the fiscal year), foreign exchange risks being borne by the latter insofar as it is billed by the Group in euros.

The Group is in regular contact with this new distributor, which wants to continue distributing SuperSonic Imagine products once it has been able to clear its debt. To this end, a 100% provision was funded for the debt owed by this new distributor since the 2016 reporting date.

Legal proceedings were brought in 2017 and were still ongoing in 2018.

7. Other receivables

In thousands of euros	December 31, 2018	December 31, 2017
Supplier advances and deposits	511	867
Income Tax – Research Tax Credit – Innovation Tax Credit	868	468
Value Added Tax	706	584
Factor current account	779	1,108
Receivables	1,002	1,454
Personnel	2	-
Gross total	**3,868**	**4,482**
Impairment	(1,002)	(1,002)
Net total	**2,865**	**3,480**

Income Tax – Research Tax Credit – Innovation Tax Credit
Given its status as an SME under EU law, receivables relating to Research Tax Credits (RTC) are repaid in the year following their recognition.

At December 31, 2018, the RTC for the past fiscal year was pre-financed for 67% of its estimated value, totaling €1.6 million deducted from the above receivable.

Receivables
Within the context of the dispute against its former Chinese distributor, the Company recorded income receivable in 2014 equal to €1.002 million, which corresponded to damages following the judgment on October 30, 2014 of the International Chamber of Commerce that was rendered in favor of SuperSonic Imagine. To the extent that the Company has no warranty that its former distributor has the capacity to honor this debt, this amount was fully provisioned.

8. Cash

Cash held at banks is principally held in euros.

At December 31, 2018, the Group had short-term overdraft facilities totaling €4.8 million, including €1.6 million in 2018 RTC pre-financing through assignment of receivables (subject to the provisions of Articles L214-169 to L214-175 of the French Monetary and Financial Code) and €3.2 million under the trade receivables factoring agreement. It also had an unused authorized bank overdraft for €500,000.

At December 31, 2018, cash consisted of the following:

In thousands of euros	December 31, 2018	December 31, 2017
Marketable securities	163	163
Cash on hand	7,800	17,602
Total Cash	**7,963**	**17,765**

€51,000 in marketable securities are pledged (see Note 24.2).

9. Accrued assets and liabilities

9.1. Unrealized foreign exchange gains and losses

Following the revaluation of foreign currency payables and receivables at the closing price, the Company recognized unrealized foreign exchange gains and losses at December 31, 2018 as per the following tables:

In thousands of euros	December 31, 2018	December 31, 2017
Trade and intragroup receivables	1,665	244
Trade payables	570	377
Total unrealized foreign exchange losses	**2,235**	**621**

At December 31, 2018, provisions were fully funded for unrealized foreign exchange losses under financial expenses in the income statement.

In thousands of euros	December 31, 2018	December 31, 2017
Trade and intragroup receivables	2,617	884
Trade payables	536	404
Total unrealized foreign exchange gains	**3,152**	**1,288**

The increase in unrealized exchange gains and losses on receivables is primarily explained by the sharp movement in the dollar and the sizeable outstandings with the U.S. subsidiary.

9.2. Other accruals

ASSETS		
In thousands of euros	December 31, 2018	December 31, 2017
Prepaid expenses	191	257
Including operating expenses	*191*	*257*
Loan Issuance costs	480	733
Total other accruals	**671**	**990**
LIABILITIES		
In thousands of euros	December 31, 2018	December 31, 2017
Deferred revenue	949	712
Total other accrued liabilities	**949**	**712**

The deferred revenue pertains to i) a portion of the income from operating grants staggered to reflect actual expenses and ii) services (primarily maintenance, after-sales service, warranty extensions) the revenue for which is recognized once the service has been provided.

10. Maturity dates of receivables

Maturity date of receivables at period end

The chart on gross receivables is presented below, noting the maturity dates:

In thousands of euros	December 31, 2018	Less than 1 year	More than one year
Receivables related to equity interests	25,736	-	25,736
Other financial assets	1,083	-	1,083
Doubtful or litigious clients	*1,757*	-	*1,757*
Other trade receivables	*4,741*	*4,741*	-
Trade receivables	6,498	4,741	1,757
Supplier advances and deposits	511	511	
Income Tax – Research Tax Credit – Innovation Tax Credit and Tax Credit for Competitiveness and Employment	868	868	
Value-Added Tax	706	706	
Factor current account	779	779	-
Receivables	1,002		1,002
Personnel	2	2	-
Other receivables	3,868	2,866	1,002
Prepaid expenses	191	191	-
Loan Issuance costs	480	247	223
Total	**37,854**	**8,045**	**29,800**

11. Impairment of assets

The chart below presents the change in the impairment of assets between the opening and closing dates.

In thousands of euros	December 31, 2017	Provisions	Reversals	December 31, 2018
Equity securities	11,694		(168)	11,526
Other financial assets	24,141	2,233	(522)	25,852
Inventories	1,385	1,777	(916)	2,246
Trade receivables	1,541	349	(133)	1,756
Other receivables	1,002	-	-	1,002
Total impairment of assets	**39,763**	**4,359**	**(1,739)**	**42,382**

The provision for other financial assets mainly relates to the impairment of receivables from Group subsidiaries.

12. Shareholders' equity and composition of share capital

Since April 10, 2014, the Company's shares have been admitted for trading on the Euronext regulated market in Paris under the ISIN code FR0010526814 and the mnemonic SSI.

In June 2017, the capital increase gave rise to the entry into circulation of 6,932,000 dilutive instruments, raising the total number of shares to 23,209,127 at December 31, 2017.

In 2018, the 207,500 shares created following the vesting of the first tranche of free shares, raised the number of outstanding shares to 23,416,627 at December 31, 2018.

12.1. Share capital

Variations in share capital break down as follows:

In thousands of shares	January 1, 2018	Share capital increase	Expenses relating to the capital increase	Retained earnings (losses) allotted to the share premium	Subscription of dilutive instruments			Dec. 31, 2018
					Stock options	Founders' warrants (BSPCE)	Warrants (BSA)	
Ordinary shares	23,209,127	207,500	-	-	-	-	-	23,416,627
Total number of shares	**23,209,127**	**207,500**	**-**	**-**	**-**	**-**	**-**	**23,416,627**
In thousands of euros								
Share Capital	**2,321**	**21**	**-**	**-**	**-**	**-**	**-**	**2,342**
Share premium	**30,300**	**(21)**	**28**	**(10,192)**	**-**	**-**	**31**	**20,145**

The table below presents changes in the Company's capital and share premium (in thousands of euros) over two years:

Transaction	Capital	Share premium	Number of shares
At January 1, 2017	**1,627**	**59,755**	**16,271,481**
Cash capital increase – June 2017	693	10,814	6,931,829
Expenses relating to the capital increase	0	-786	0
Reclassification of retained earnings as a deduction from the share premium	0	-39,483	-
Exercise of Stock options	1	0	5,817
At December 31, 2017	**2,321**	**30,300**	**23,209,127**
At January 1, 2018	**2,321**	**30,300**	**23,209,127**
Share capital increase	21	-21	0
Expenses relating to the capital increase	0	28	0
Reclassification of retained earnings as a deduction from the share premium	0	-10,192	0
Allocation of free shares	0	0	207,500
Subscription for warrants	0	31	0
At December 31, 2018	**2,342**	**20,145**	**23,416,627**

12.2. Dividends

The Company has never distributed a dividend and will not do so for fiscal year 2018.

12.3. Liquidity agreement

On April 15, 2017, a new liquidity agreement was signed with Gilbert Dupont that cancels and supersedes the agreement with Exane BNP Paribas. This agreement was signed for a period of 12 months ending on April 14, 2018 and will be subject to tacit renewal.

At December 31, 2018, the number of treasury shares held under the liquidity agreement was 110,931, in addition to €65,000 in cash, presented under Other financial assets.

13. Share-based payments

The Group allots 2 types of instruments to certain senior managers, employees, and people related to the Company by a consulting agreement:

- Share-based dilutive instruments, such as options for shares, free shares, warrants or founders' warrants. The latter are described below in Note 13.1;
- Non-dilutive instruments based on shares. The latter are described below in Note 13.2.

13.1. Share-based dilutive instruments

13.1.1. Conditions of plans allocated

At December 31, 2018, the following share-based payments were granted by the Company:

Founders' warrants (*Bons de souscription de parts de créateur d'entreprise* – BSPCE):

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments: awarded at outset Exercisable at Dec. 31, 2018	Expiration date
10-2008 BSPCE November 5, 2009	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€8.85	296,000 (2) 122,183	Nov. 5, 19

(1) Following the IPO on April 9, 2014, these instruments became immediately exercisable.

(2) Following the 10-1 stock split dated May 16, 2012, each BSPCE entitled bearers to subscribe for 10 shares at the unit exercise price indicated above. To make it easier to understand, the number of instruments at the outset was multiplied by 10, thereby reflecting the number of shares in the capital post-split.

Warrants (BSA):

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments: awarded at outset Exercisable at Dec. 31, 2018	Expiration date
10-2008 BSA (2) April 16, 2010	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€8.85	169,500 (2) 10,266	Apr. 16, 20
2013 BSA October 4, 2013	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€0.10	27,000 2,772	Oct. 4, 23
2017 BSA November 22, 2017	Exercisable by tranche of 33.33% at the end of 12, 24 and 36 month vesting periods from the Award within at most 4 years (3)	€1.86	100,000 33,333	Nov. 22, 21

(1) Following the IPO on April 9, 2014, these instruments became immediately exercisable.

(2) Following the 10-1 stock split dated May 16, 2012, each BSPCE entitled bearers to subscribe for 10 shares at the unit exercise price indicated above. To make it easier to understand, the number

of instruments at the outset was multiplied by 10, thereby reflecting the number of shares in the capital post-split.

(3) The exercise of these warrants is subject to the holder being a member of the Supervisory Board/Board of Directors (continued membership) without any performance condition.

Ordinary shares/Stock options:

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments: awarded at outset Exercisable at Dec. 31, 2018	Expiration date
2013 ordinary options October 4, 2013	Exercisable up to 25% after 12 months starting from the allocation date then for the rest up to 7.5% at the end of each quarter for 30 months. (1)	€0.10	381,250 342,105	Oct. 4, 23
AGA Exchange 2013 options October 4, 2013	Exercisable up to 55% starting from the allocation date then for the rest up to 7.5% at the end of each quarter starting October 1, 2013. (1)	€0.10	254,500 256,105	Oct. 4, 23
09-2014 options September 19, 2014	Up to 6.25% of options may be exercised at the expiration of each successive 3-month period that has elapsed from the date of allocation, and at the latest within the 10 years following the date of allocation.	€8.40	411,850 102,964	Sep. 18, 24

(1) Following the IPO on April 9, 2014, these instruments became immediately exercisable.

Free shares:

Plan – Date of allocation	Vesting conditions	Exercise price per share	Number of instruments awarded at outset	Expiration date
Free performance shares March 31, 2017	Vested and delivered to the beneficiaries in tranches of 20% at the end of 12, 24, 36, 48 and 60 month vesting periods from the Award. (1)	-	1,073,500	N/A
Free performance shares April 2018	Vested and delivered to the beneficiaries in tranches of 20% at the end of 12, 24, 36, 48 and 60 month vesting periods from the Award. (1)	-	114,000	N/A

(1) Except in special instances approved by the Board of Directors, beneficiaries irrevocably lose their Performance Shares for unvested tranches:

- *Where their resignation takes effect before the end of a vesting period, the loss of the Performance Shares shall take effect on the date that the beneficiary's employment contract or corporate office ends;*
- *In the event of dismissal or termination for any reason whatsoever before the end of the Vesting period, the loss of the Performance Shares shall take effect on the date of notification of dismissal or termination, as the case may be.*

On April 26, 2018, the Management Board, after consulting the Supervisory Board, decided to change the performance conditions for the 2017 Performance Shares.

The former performance conditions were thus dropped in favor of a new performance condition (the "**Performance Condition**") corresponding to achievement of a ratio of Company EBITDA to

Revenue (the "**EBIDTA/Revenue Ratio**"). This condition should also be assessed annually for the delivery of each of the remaining tranches of 2017 Performance Shares, starting with the tranche vesting on March 31, 2019.
The Performance Shares will be delivered to each Beneficiary for each tranche at the end of each Vesting Period subject to the Company's achievement of a performance condition (the "**Performance Condition**") representing a ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**").

In March 2018, 207,500 new shares were created for delivery of the first tranche following achievement of the performance targets.

Moreover, on April 26, 2018, the Management Board awarded 114,000 free performance shares to the Company's employees under authorizations granted by the Combined Shareholders' Meeting of June 24, 2016.
The Performance Shares will effectively vest and be delivered to beneficiaries in tranches in the following proportions after the vesting periods indicated:

- twenty percent (20%) at the end of a twelve (12) month vesting period following the Award;
- twenty percent (20%) at the end of a twenty-four (24) month vesting period following the Award;
- twenty percent (20%) at the end of a thirty-six (36) month vesting period following the Award;
- twenty percent (20%) at the end of a forty-eight (48) month vesting period following the Award;
- twenty percent (20%) at the end of a sixty (60) month vesting period following the Award.

During the vesting periods, the beneficiaries don't own the shares awarded to them and may not transfer the rights arising from such awards. The free shares will be delivered to their beneficiaries at the end of this vesting period.

Performance Shares will only be delivered to beneficiaries who remain an employee or corporate officer of the Company or of an associate throughout the vesting period for each tranche, except where otherwise provided for under the Plan and below.

Except in special instances considered by the Board of Directors, beneficiaries irrevocably lose their Performance Shares for unvested tranches:

- where their resignation takes effect before the end of a vesting period, the loss of the Performance Shares shall take effect on the date of the end of the employment contract or of the corporate office of the beneficiary;
- in the event of dismissal or termination for any reason whatsoever before the end of the Vesting period, the loss of the Performance Shares shall take effect on the date of notification of dismissal or termination, as the case may be.

The Performance Shares will be delivered to each Beneficiary for each tranche at the end of each Vesting Period subject to the Company's achievement of a performance condition (the "**Performance Condition**") representing a ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**").

The EBITDA/Revenue ratio is calculated for each tranche by dividing Company EBITDA by Revenue in the fiscal year immediately preceding the corresponding Vesting Date. If the actual EBITDA/Revenue Ratio is equal to or greater than 80% of the target EBITDA/Revenue Ratio for the fiscal year in question, the number of Shares to be delivered shall be equal to 100% of the Performance Shares awarded for the tranche in question, before the adjustments provided for in Article 7 below. If it is under 80% of the target EBITDA/Revenue Ratio, no Share will be delivered for the tranche in question.

13.1.2. Changes in outstandings for dilutive instruments

Warrants (BSA)

a) Warrants

The number of warrants in circulation and their average exercise price are detailed below:

	2018		2017	
Warrants (BSA)	Average exercise price in € per share	Number of instruments	Average exercise price in € per share	Number of instruments
At January 1	**7.08**	**113,038**	**4.26**	**124,500**
Adjustment following the capital increase	-	-		338
Granted	-	-	1.86	100,000
Null and void	-	-	5.84	-8,800
Exercised	-	-	-	-
Expired	-	-	5.20	-103,000
At December 31	**7.08**	**113,038**	**7.08**	**113,038**
Exercisable	**7.08**	**46,371**	**7.34**	**13,038**

b) Founders' warrants (*Bons de Souscription de Parts de Créateur d'Entreprise* (BSPCE))

The number of founders' warrants outstanding and their average exercise price are detailed below:

	2018		2017	
Founders' warrants (BSPCE)	Exercise price in € per share	Number of instruments	Exercise price in € per share	Number of instruments
At January 1	8.62	128,856	7.76	215,300
Adjustment following the capital increase				2,356
Granted	-	-	-	-
Null and void	8.85	-6,673	5.84	-5,000
Exercised	-	-	-	-
Expired	-	-	8.85	-83,800
At December 31	**8.62**	**122,183**	**8.62**	**128,856**
Exercisable	**8.62**	**122,183**	**8.62**	**128,856**

Following the IPO, all of the founders' warrants are exercisable.

c) Share Subscription Options/Stock Options

The number of stock options in circulation breaks down as follows:

	2018		2017	
Share Subscription Options (OSA)	Exercise price in € per share	Number of options	Exercise price in € per share	Number of options
At January 1	0.20	701,481	0.20	692,061
Adjustment following the capital increase			-	15,171
Granted	-	-	-	-
Expired	-	-	-	-
Exercised *	0.10	-308	0.10	-5,750
At December 31	**0.20**	**701,174**	**0.20**	**701,482**
Exercisable	**0.20**	**701,174**	**0.20**	**701,481**

** The increase in the number of outstanding Company shares following the exercise of these stock options will be confirmed for legal purposes in early FY 2019.*

d) Free shares

The number of free shares in circulation breaks down as follows:

	2018		2017	
Free shares	Exercise price in € per share	Number of free shares	Exercise price in € per share	Number of free shares
At January 1	-	1,022,500	-	-
Adjustment following the capital increase	-	-	-	-
Granted	-	114,000	-	1,073,500
Expired	-	- 32,500	-	- 51,000
Issued	-	-207,500	-	-
At December 31	-	896,500	-	1,022,500

13.2. Share-based non-dilutive instruments

On July 1, 2014, the Group granted Stock Appreciation Rights (SAR) to employees at the Chinese representative office.

The principle is as follows:
Each of the nine beneficiaries has received a fixed number of SARs, which vest over two years (with the exception of one person where they were fully vested upon allocation), except in cases of a change in Company control, where all of them would immediately become exercisable. These SARs are exercisable through October 23, 2023 (subject to attendance conditions within the Group).

The Group shall pay the allottee upon written request, and for each year of the allotted SARs, the lower amount between the following two amounts:

- The market price of the Company's stock on the eve of the request for exercise, less €0.10;
- €20.

At the reporting date, the SARs allotted were valued at €23,000. This amount was recorded in the provision for contingencies at December 31, 2018 (See Note 16).

13.2.1. Conditions of plans allocated

Plan – Date of allocation	Vesting conditions	Number of instruments awarded at outset. *Exercisable at Dec. 31, 2018*	Expiration date
Stock Appreciation Right			
SAR 07-2014 July 1, 2014	Exercisable in thirds on July 1 of each year (2014, 2015, 2016), or immediately exercisable in the event of a change in control	10,000 *10,000*	Oct. 23, 23
SAR 07-2014 July 1, 2014	Fully exercisable at July 1, 2014.	5,000 *5,000*	Oct. 23, 23

13.2.2. Changes in outstandings for non-dilutive instruments

SAR	2018	2017
	Number of instruments	Number of instruments
At January 1	15,000	15,000
Granted	-	-
Null and void	-	-
Exercised	-	-
Expired	-	-
At December 31	**15,000**	**15,000**
Exercisable	**15,000**	**11,600**

14. Bond issues

2017 Kreos bond (Tranches 1 and 2)

In 2017, the company arranged a new bond issue for Kreos, for a total of €12 million, consisting of two tranches of bonds with warrants (OBSA), for €6 million each, which will help finance the commercial development of SuperSonic Imagine and pay down some existing debts.
The first tranche (Tranche 1) for €6 million was subscribed following the Management Board meeting of March 13, 2017.
The second tranche (Tranche 2) for €6 million was subscribed following the Management Board meeting of December 22, 2017.

The loan's terms and conditions are as follows:

- The loan is for a period of 42 months and bears interest at an annual fixed rate of 10.75%
- Standard pledges have been provided by SuperSonic Imagine over the bank accounts, intellectual property and certain trade receivables (see Note 39.2)
- each warrant shall entitle the holder to subscribe for a number of shares calculated using the following formula (the "Exercise Ratio"):

R = [(1,320,000 / P) * { 0.5 + [0.5 * (NOBSA / 12,000,000)] }] / NOBSA
where: R: means the Exercise Ratio
P: means the volume-weighted average price of the Company's shares on the Paris NYSE Euronext market during the ninety days preceding the date of issue of the bonds with warrants (OBSA);
NOBSA: means the number of bonds with warrants (OBSA) actually subscribed by said holder on the date of exercise of the warrants.
Accordingly, each warrant holder may subscribe for the number of shares ("N") resulting from the following formula: N = R * NBSA where: R: means the Exercise Ratio, and NBSA: means the number of warrants held by the relevant warrant holder.

A representative of Kreos is entitled to attend meetings of the Board of Directors of SuperSonic Imagine as a non-voting member (censeur).

In parallel with the issue of the bonds with warrants, in March 2017 the company had entered into a put option agreement for warrant holders, under which it undertook to buy back the Kreos warrants for a maximum of €660,000 at the request of the warrant holders.
The fair value of this debt was €514,000 at December 31, 2017.

When Tranche 3 was issued in December 2018 (see description below), Kreos outright waived all its pre-existing warrants along with the related put option.
All these warrants and related put options thus expired at 12/31/2018.

2018 Kreos bond (Tranche 3)

On December 13, 2018, the Company issued a new €12 million bond to Kreos comprising two €6 million tranches, each of which had €4.8 million in plain vanilla bonds and €1.2 million in bonds convertible into shares with warrants (OCABSA) and will help finance the commercial development of SuperSonic Imagine and the repayment of certain existing debts.

The first tranche (Tranche 3) was subscribed following the December 13, 2018 meeting of the Board of Directors.

The second tranche (Tranche 4) will be realizable by September 30, 2019 subject to certain financial performance conditions and additional financing.

The loan's terms and conditions are as follows:

- The loan is for a period of 42 months (42 monthly installments with capital repayments deferred for 6 months) at an annual interest rate of 10.75%;
- Standard pledges have been provided by SuperSonic Imagine over the bank accounts, inventories, intellectual property and certain trade receivables (see Note 39.2)
- Option for the Company to redeem these plain vanilla bonds at any time, provided all are redeemed. The penalties payable will thus be equal to the sum of future interest owed discounted at 10% per annum;
- Kreos may convert some or all of the convertible bonds into shares at any time. Each convertible bond may be converted into N_{CS} new ordinary shares calculated using the following formula:

The number of Conversion Shares to be issued to the Subscriber upon service of a Conversion Notice shall be equal to the result of following formula:

$$N_{CS} = CR * N_{CB}$$

Where:

N_{CS} means the number of Conversion Shares

CR means the Conversion Ratio, and

N_{CB} means the number of Convertible Bonds to be converted in accordance with the Conversion Notice.

The Conversion Ratio will be equal to the result of the following formula:

$$CR = 1 / (P - D)$$

Where:

P: means the lower of (i) 100% of the volume weighted average price per share of all shares traded on the NYSE Euronext in Paris for the 30-day period ending ten days prior to the Completion Date and (ii) the share price paid by investors in any new financing round, being specified however that P may not be lower than the floor determined by the General Meeting, in its 26th and 28th resolutions, i.e. the lower of (i) the volume weighted average price per share of all shares traded on the NYSE Euronext in Paris for the 3-day period ending the day before the day on which P is determined, discounted by 5%, and (ii) the volume weighted average price per share of all shares traded on NYSE Euronext in Paris for the 3-month period ending the day before the day on which P is determined, discounted by 15%;

D: means the cumulated amounts of dividends per share paid by the Issuer between Completion Date and the Conversion Date.

- The 1,200,000 warrants issued with the convertible bonds will entitle the holder to subscribe for a number of shares calculated using the following formula (the "Exercise Ratio") at an exercise price P:
  R = [(2,640,000 / P) * { 0.5 + [0.5 * (NB / 12,000,000)] }] / NW
  where: R: means the Exercise Ratio
  P: means the lower of (i) €1.5811 and (ii) the unit price of a share in a subsequent fundraising round, it being noted that P may not be under €1.2368. Accordingly, each warrant holder may subscribe for the number of shares ("N") resulting from the following formula: N = R * NBSA where: R: means the Exercise Ratio, and NBSA: means the number of warrants held by the relevant warrant holder.

The maximum number of shares that may be issued upon conversion of the Tranche 3 convertible bonds is 970,246 shares, and upon exercise of the Tranche 3 warrants is 1,600,906 shares, namely a total maximum to be issued of 2,571,152 new shares.

In parallel with the issue of the bonds with warrants, in December 2018 the Company entered into an alternate put option agreement for warrant holders, under which it undertook to buy back the Kreos warrants for a maximum of €1.10 per warrant at the request of the warrant holders. Kreos can thus elect to exercise this alternate put option, in whole or in part.
The alternate put option can only be exercised:
- (i) for an aggregate of 800,000 warrants: at any time following the expiry of Tranche 3 (after 42 months or early redemption, including acceleration), or prior to that in the event of the disposal of all the Company's share capital;
- (ii) for an additional 1,600,000 warrants (and limited to the number of warrants actually issued in Tranches 3 and 4): at any time following expiry of the earliest of the expiry of tranche 3 and of tranche 4 (full term or early redemption, including acceleration) or prior to that in the event of the disposal of all the Company's share capital.

The exercise price of this put is as follows:
- If the alternate put option is exercised, in whole or in part, before tranche 4 is drawn down, the sale price will be €1.10 per warrant.
- If tranche 4 is then drawn down and subscribed under the OCABSA issue agreement, the sale price of the warrants issued under this tranche 4 of the OCABSA issue would thus be €0.55 per warrant.

• If the alternate put option is only exercised after the draw-down and subscription of tranche 4, the sale price will be €0.825 for the warrants of both tranches 3 and 4.

In parallel with the issue of the OCABSA, the Company also approved a put option agreement for the warrant holders. This put option agreement is a cashless exercise put option, which means that warrant holders exercising warrants do not have to pay the exercise price of the warrants: at the time of exercise of the warrants, a proportion of the warrants exercised are bought back by the Company in cash and this sum immediately used to settle the exercise price for the remaining warrants exercised. This mechanism will create a payable due by the Company to Kreos, which will be used to complete the capital increase by offsetting the payable, corresponding to the remainder of the warrants exercised.

Norgine warrant
The €5 million bond subscribed by Norgine in 2013 was repaid early in March 2017.

There nevertheless continue to be warrants with the following characteristics.

Number: 50,000 warrants

Exercise ratio: each warrant entitles its bearer to subscribe for a share with a unit price of €10.

Exercise period: Due to the Company's IPO in April 2014, these warrants became exercisable through December 17, 2023.

15. Contingent advances

Repayable advances *(in thousands of euros)*	Balance at Dec. 31, 2018	Balance at Dec. 31, 2017
Business France	15	15
ICARE – OSEO	1,441	1,130
TUCE – OSEO	407	407
Total	**1,863**	**1,552**

The change in the Icare contingent advance relates to receipts of €274,000 during the fiscal year as well as €38,000 in accrued interest.

16. Provisions for contingencies and Other provisions

In thousands of euros	December 31, 2017	Provisions	Reversals	December 31, 2018
Provisions for foreign exchange losses	620	1,614	-	2,234
Provisions given to clients – Warranties	535	707	(806)	436
Provisions for litigation	150	-	-	150
Other provisions for contingencies	36	-	(12)	24
Total provisions for contingencies	**1,341**	**2,321**	**(818)**	**2,844**

All reversals of provisions are used.

Provision for foreign exchange losses
This €2.234 million provision is intended to cover unrealized exchange losses.

Provision for client warranties
This €436,000 provision is intended to cover the costs of warranties for systems sold during the past fiscal year. In fact, the sales made by the Company are subject to a one-year warranty period. The measurement of the cost of the warranty as well as the probability that these costs will be incurred is based on an analysis of historic data. The provision corresponds to the number of months remaining on existing warranties at the reporting date for all equipment sold.

SAR China – Other provisions for contingencies
On July 1, 2014, the Group granted Stock Appreciation Rights (SAR) to employees at the Chinese representative office (See Note 13.2).

Provision for litigation
A €150,000 provision was funded for litigation arising in respect of events prior to December 31, 2017 and still pertinent at December 31, 2018.

17. Loans and other financial debts

In thousands of euros	December 31, 2018	December 31, 2017
Short-term debt	-	500
Payables related to equity interests	2,635	2,204
Long-term BPI loan	3,800	1,800
Warrant component – put option (see Note 14)	-	514
Others	14	14
Total loans and other financial debts	**6,449**	**5,032**

18. Tax and corporate debts

In thousands of euros	December 31, 2018	December 31, 2017
Personnel and related accounts	1,044	1,429
Corporate bodies	1,231	1,013
Other taxes and similar	243	443
Total tax and corporate debts	**2,518**	**2,885**

19. Maturity dates of debts at period end

The chart on debts is presented below noting the maturity dates:

In thousands of euros	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
Contingent advances	1,864	219	814	831
Convertible bonds	14,623	4,983	9,640	-
Loans and other financial debts	6,449	180	2,654	3,615
Including Group and associates	*2,649*	-	*14*	*2,635*
Advances and deposits received on current orders	55	55		
Trade payables	6,728	6,287	221	220
Tax and corporate debts	2,518	2,518	-	-
Other debts	1	1	-	-
Deferred revenue	949	477	472	-
Total debts	**33,187**	**14,720**	**13,801**	**4,666**

The table below shows the breakdown of expenses payable:

In thousands of euros	December 31, 2018	December 31, 2017
Financial debt	-	-
Trade payables and related	4,001	2,666
Tax and corporate debts	1,713	2,209
Other debts	-	-
Total expenses payable	**5,714**	**4,875**

20. Deferred revenue

In thousands of euros	December 31, 2018	December 31, 2017
Operating income	949	712
Total deferred revenue	**949**	**712**

Deferred revenue includes the amounts billed under the contractual terms, but for which the income is not recognizable for the period, as well as the operating grants for which income is staggered to reflect the rate of the expenses incurred.

21. Additional information relating to the income statement

21.1. Revenue

At December 31, 2017 and December 31, 2018, revenue broke down as follows:

In thousands of euros	December 31, 2018			December 31, 2017
	France	Foreign	Total	Total
Sale of merchandise	98	338	435	406
Production sold (goods)	2,411	18,138	20,548	20,923
Production sold (services)	634	1,734	2,368	2,506
Total	**3,143**	**20,209**	**23,352**	**23,835**

21.2. Net earnings per share

	Dec. 31, 2018	Dec. 31, 2017
Loss attributable to equity holders of the Company (in thousands of euros)	(13,597)	(10,192)
Weighted average number of ordinary shares outstanding	23,364,233	20,120,838
Weighted average number of treasury shares	-96,785	-76,673
Weighted average number of ordinary shares used to calculate basic earnings per share	23,267,448	20,044,165
Basic earnings per share (in euros)	(0.58)	(0.51)

In line with the current rules, since earnings per share are negative for the fiscal years presented, it is not necessary to calculate a diluted loss per share because this would be lower than the basic loss.

21.3. Financial income (loss)

Financial income breaks down as follows:

In thousands of euros	December 31, 2018	December 31, 2017
Financial income from investments	172	153
Other interest and similar income	370	3
Reversals of provisions and transfers of expenses	522	151
Foreign exchange gains	-	443
Total financial income	**1,064**	**751**
Interest and similar expenses	1,432	1,625
Financial allocations to depreciation, amortization and provisions	3,680	938
Foreign exchange losses	-	855
Total financial expenses	**5,112**	**3,418**
Total financial income (loss)	**(4,048)**	**(2,667)**

Financial allocations to amortization and depreciation, and provisions primarily for impairment of receivables and equity investments vis-à-vis subsidiaries as well as an increase in the provision for foreign exchange losses.

21.4. Exceptional income

At December 31, 2018, exceptional income and expenses broke down as follows:

In thousands of euros	December 31, 2018	December 31, 2017
Exceptional income from management operations	60	655
Exceptional income from capital operations	-	-
Reversal of provisions and transfers of expenses	-	-
Total exceptional income	**60**	**655**
Exceptional expenses from management operations	107	44
Exceptional expenses from capital operations	(4)	-
Exceptional allocations to depreciation, amortization and provisions	-	150
Total exceptional expenses	**103**	**194**
Total exceptional income	**(43)**	**460**

The 2018 exceptional expenses mainly consisted of discounts on the liquidity agreement.

The 2018 exceptional income solely consisted of bonuses on the liquidity agreement.

Last year, a €150,000 provision had been funded for these disputes.

22. Licensing agreements

22.1. Licenses acquired or adopted

When it was incorporated, the Group entered into licensing agreements on basic patents.
During the second round of funding in 2008, the Group acquired licensed CNRS patents upon their creation, and the share of the CNRS patents taken in co-ownership arising from the collaborative framework contract with the CNRS (contract from 2006 to 2008). These agreements also provide for the payment of royalties.

In 2014, the Company signed a new non-exclusive international licensing agreement for the entire portfolio of patents of a major industry player in the area of ultrasound medical imaging methods and equipment.

At present, the Company is committed to paying royalties, in an amount which is indexed on a portion of its revenue, with the expense being recorded under Other Operating Expenses.

22.2. Licenses granted

Through an agreement signed March 3, 2014, the Company granted a major industrial player a worldwide non-exclusive license over some of its patents. This agreement will run until at least November 2023, in consideration for the payment of royalties which were spread out over 2014 and 2015. All these royalties were recognized in "Other operating income" in 2014. This player also agreed not to enforce the medical ultrasound imaging patents that it owns against the Company. The company also negotiated a worldwide non-exclusive cross licensing agreement in 2016 for some of its patents with a second major industrial player.
No other license has since been granted.

23. Contingent liability related to ongoing operations

On November 22, 2017, Verasonics Inc. filed a lawsuit in the U.S. District Court for the Western District of Washington in which it alleged that SuperSonic Imagine had infringed three of its U.S. patents and claimed trade secrets.
SuperSonic Imagine rejects these claims and will vigorously defend itself.
SuperSonic Imagine intends to challenge the validity and legitimacy of the asserted intellectual property.

Given that the Company disputes this claim and that there is little evidence at December 31, 2018, no provision has been funded.

24. Other financial commitments

Commitments received
The amount of trade receivables at the balance sheet date is covered under a reservation of property clause in the general terms and conditions of sale, to the benefit of the company.
As the Company benefits from the assistance of OSEO in the financing of its Research and Development activities, it received commitments to finance a part of its future work in the form of grants and repayable advances:

In thousands of euros	Grants received				Amount of grant on contract	Balance receivable
	Before 2017	2017	2018	Cumulative total		
ICARE – OSEO	1,775		354	**2,129**	2,838	709*
DARMUS – DGA	645			**645**	645	
CARDIO – ANR	215			**215**	215	
TUCCIRM – ANR	126			**126**	126	
Elastobus – OSEO	454			**454**	454	
TUCE – OSEO	1,027	181		**1,208**	1,208	
Micro Elasto – ANR	181			**181**	186	4
PLIK – OSEO	54			**54**	133	79
PLIK – Pays d'Aix	25			**25**	80	55

PLIK – PACA					80	80
BITHUM – ANR	94	18		**112**	118	6
IDITOP – OSEO	268		67	**335**	335	
IDITOP – PACA	219		31	**250**	250	0
Cartographics – INCA INSERM	133			**133**	133	
Capacity – BPI SOLUS	197		147	**344**	408	64
Ultra Fast 4D-ANR	92			**92**	306	214
RHU STOP AS		80	25	**105**	203	98
Total	**5,505**	**279**	**624**	**6,407**	**7,716**	**1,309**

** Icare grant: see Section 24.3 above, the outstanding amount of the grant will likely never be obtained.*

Repayable advances

In thousands of euros	Balance at Dec. 31, 2017	Advances received	Repayments	Balance at Dec. 31, 2018	Amount of grant on contract	Outstanding amounts to be received
Business France	15			15	200	185*
ICARE – BPI	1,026	274		1,300	3,039	1,739
TUCE – BPI	407			407	407	
Total	**1,448**	**274**		**1,722**	**3,646**	**1,924**

** Icare contingent advance: see Section 24.3 above, the remainder of the advance will likely never be paid.*

Commitments made

24.1. Pledge to guarantee the bonds

To guarantee all the Company's obligations under the Kreos Tranches 1 to 3 bond issuance agreement (see Note 14), the Company granted a series of sureties to Kreos in the event of an unresolved Event of Default:

- Pledge of bank account balances;
- Pledge of trade receivables;
- Pledge of Intellectual Property Rights (brands, patents, software) of certain families;
- Non-possessory pledge of inventory (excluding certain items decided by the Company, for a maximum of €500,000 and including demonstration equipment).

And up to the date of payment in full of all sums due under the Venture Loan.

24.2. Pledge of marketable securities

Marketable securities amounting to €51,000 have been pledged to BNP Paribas Real Estate as a deposit on the rent for the Aix-en-Provence business premises. This guarantee was given for a period of nine years and will end on September 30, 2024.

24.3. ICARE program repayable advance and grant

The Company received a repayable Bpifrance advance for €863,000 for the Icare program and a grant for the amount of €1.775 million.
The initial contract stipulated that the advance will be repaid according to the future sales of products from the project, up to the fiscal year ending in 2022. Repayments may therefore exceed the nominal amount received.
In the 2017 fiscal year, the Company had reached an agreement with Bpifrance, which is funding this program, in particular regarding the revenue base to be considered for future payments, since part of the initial objectives have not been achieved.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet for the interest portion.
The portion of the outstanding payments in excess of the amount of the advance is recognized on the balance sheet at 25% of the repayable advance received.

24.4. Operating lease commitments:

The commercial lease signed by the company for the premises located in Aix-En-Provence, renewable for a period of three years, which ran to July 17, 2017. This lease was tacitly renewed and will end on September 30, 2024. At 12/31/2018, the outstanding commitments amounted to €198,000.
In July 2015, the Company signed a new lease for new premises located in Aix-en-Provence, renewable for a three-year period, which runs to June 30, 2018. An amendment was signed in November 2018 permitting departure from the building in question each quarter on 6 months' notice up to 12/31/2020. The outstanding commitments in this respect were €25,000 at 12/31/2018.

24.5. TUCE program repayable advance:

A non-interest bearing repayable advance was granted, for a total of €0.4 million for the TUCE program, including €77,000 received on June 26, 2012, €242,000 received on July 1, 2015, €27,000 on June 13, 2016 and €61,000 on July 5, 2017. The repayments will be based on future sales of products from this project, and may thus exceed the nominal amount received, but in the absence of a reliable estimate of the amount to be paid until 2023, this amount is not recorded in the balance sheet.

24.6. Business France

A repayable advance under the "Export+ santé Cosmétique" program covering up to 50% of the total amount of filing and certification costs with €200,000 being awarded. This program is meant to support corporate growth. A €15,000 advance was paid on December 21, 2016.
The repayments plus a 7.5% surcharge will be made if within 18 months to 3 years from certification, revenue from the products and country in question is equal to or more than double the amount of expenses the advance helped finance.

24.7. Financing by assignment of receivables

The assignment of receivables (subject to the provisions of Articles L214-169 to L214-175 of the French Monetary and Financial Code) arranged in December 2016 with an investment fund enabled the pre-financing of 67% of the 2018 RTC at December 31, 2018, for a total of €1.6 million. In accordance with applicable accounting rules in France, the receivable was derecognized for the amount financed.

In January 2017, the company also signed a trade receivables factoring agreement.
At December 31, 2018, factored receivables totaled €3.2 million. In accordance with applicable accounting rules in France, these receivables were derecognized for the amount financed.

25. Staff retirement commitments

At December 31, 2018, the amount of staff retirement commitments was €529,000, which was not recorded in the balance sheet.

The main actuarial assumptions used are as follows:

In thousands of euros	Dec. 31, 2018	Dec. 31, 2017
Discount rate	1.65%	1.5%
Rate of increase in salaries	3.0%	3.0%
Inflation rate	2.0%	2.0%
Social security rate: Non-management	38.5%	41.7%
Social security rate: Management	45.9%	46.2%

Obligations are calculated based on an assumption of voluntary retirement at 62 for employees and 64 for management.
Assumptions regarding future mortality expectations are set based on data from published statistics and historical data in France (INSEE table TD/TV 2012 – 2014).
The mobility rates used were determined on the basis of statistics from recent years. This rate represents an average annual mobility rate of 7.1% of employees.

26. Compensation of executive directors and corporate officers

The total gross amount of compensation and benefits of all kinds for executive directors and corporate officers paid in fiscal year 2018 totaled €927,000 compared with €1.356 million in 2017.

27. Staff

At the reporting date, the Company had 117 employees. At 12/31/2018, it also had 3 Chinese employees at its Beijing establishment and a manager in Italy.

The staff in France by category and by year broke down as shown below:

	December 31, 2018	December 31, 2017
Management	94	90
First-line supervisors and technicians	18	16
Employees	5	3
Total employees at year-end	**117**	**109**

28. Taxes and future tax position

At the close of the period, the Company's tax position broke down as follows:

- Research Tax Credit at December 31, 2018: €2.322 million;
- Other tax credits: €46,000
- Income tax: (€12,000)

The income tax concerns the Chinese establishment.

The Tax Credit for Competitiveness and Employment for €113,000 is presented as a reduction from employee expenses.

Loss carryforwards totaled €128 million at December 31, 2018 compared with €114 million at December 31, 2017.

29. Impact of special tax valuations

In thousands of euros	December 31, 2018	December 31, 2017
Profit (loss) for the year	(13,597)	(10,192)
Income tax	(2,356)	(2,129)
Income (loss) before tax	(15,953)	(12,321)
Change in regulated provisions: special amortization and depreciation allowances	-	-
Income excluding special tax valuations before taxes	**(15,953)**	**(12,321)**

30. Breakdown of income tax

At period end, the income tax payable broke down as follows:

In thousands of euros	Total	Corresponding tax	Net income (loss)
Current income (loss)	(15,910)	2,356	(13,554)
Exceptional income	(43)	-	(43)
Total	(15,953)	1,878	(13,597)

31. Information on associates

The table below shows information concerning associates. A company is considered to be an associate when it is fully consolidated within a single consolidation group. Companies are fully consolidated when the parent has exclusive control.

In thousands of euros	12/31/2018 gross	12/31/2018 net
SSI USA securities	11,209	-
SSI China securities	2,000	1,721
SSI DE securities	25	-
SSI UK securities	2	-
SSI Italy securities	10	-
SSI HK securities	1	1
Total	**13,247**	**1,722**
SSI USA receivables	20,515	-
SSI China debts	(2,408)	(2,408)
SSI DE receivables	3,095	-
SSI UK receivables	2,080	-
SSI Italy receivables	39	-
SSI China receivables	7	7
SSI HK debts	(228)	(228)
Total	**23,100**	**(2,629)**

There are no trade receivables or payables between associates at the reporting date.

Financial expenses for the fiscal year relating to associates consist of a net provision for asset impairment of €1.533 million.

Financial income for the fiscal year relating to associates consists of interest income on related receivables of €172,000.

32. Statutory Auditors' fees

Statutory Auditors' fees in the income statement for the fiscal year break down as follows:

Statutory Auditors' fees for fiscal year 2018	Ernst & Young et Autres	AresXpert Audit
In euros excluding VAT		
Certification of the separate and consolidated financial statements and review	88,000	37,000
Services other than statutory auditing	26,105	4,000
Total	**114,105**	**41,000**

33. Events after the reporting period

None.

34. Subsidiaries and equity interests

In thousands of euros		SuperSonic Imagine Inc	SuperSonic Imagine Ltd	SuperSonic Imagine, GmbH	SuperSonic Imagine Srl	SuperSonic Imagine (HK) Ltd	SuperSonic Imagine (Shanghai) Medical Devices Co. Ltd
Capital		10,396	1	25	10	1	2,002
Shareholders' equity other than share capital		(29,356)	(2,021)	(3,049)	(33)	189	(182)
Percentage of share capital held		100%	100%	100%	100%	100%	100%
Carrying amount of shares held	Gross	11,209	2	25	10	1	2,000
	Net	-	-	-	-	-	1,721
Loans and advances provided and outstanding, net		-	-	-	-	(228)	(2,408)
Securities and guarantees provided by the company		-	-	700	12	-	-
Revenue 2018		3,481	43	648	-	416	3,862
2018 net income (loss)		(1,429)	(131)	(172)	(2)	39	264
Dividends received by the company		-	-	-	-	-	-

20.4. EXAMINATION OF ANNUAL HISTORICAL FINANCIAL INFORMATION

20.4.1 Audit Report of the Statutory Auditors on the Consolidated Financial Statements prepared according to IFRS for the Fiscal Year ended December 31, 2018

Statutory Auditors' Report on the Consolidated Financial Statements

Dear Shareholders,

Opinion

In performance of the engagement with which you have entrusted us, we audited the accompanying Consolidated Financial Statements of SuperSonic Imagine for the fiscal year ended December 31, 2018.

We certify that, having regard to the IFRS as adopted by the European Union, the Consolidated Financial Statements give a true and fair view of the operating results for the past fiscal year, as well as the financial position and assets of the consolidated group at the end of said fiscal year.

The above opinion is consistent with our report to the Audit Committee.

Basis for our opinion

■ Audit framework

We have carried out our audit in accordance with the professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Our responsibilities under these standards are detailed in the section of this report entitled "Responsibilities of the Statutory Auditors with respect to the audit of the Consolidated Financial Statements".

■ Independence

We carried out our audit work in accordance with the applicable rules on independence, for the period from January 1, 2018 to the date on which this report was issued. It should be noted that we did not provide any of the services prohibited under Article 5 (1) of EU Regulation no. 537/2014 or the French Code of Ethics for Statutory Auditors.

Key audit matters

Pursuant to the provisions of Articles L. 823-9 and R. 823-7 of the French Commercial Code on the basis for our opinion, we hereby inform you of the key audit matters relating to the risks of material misstatements that, in our professional judgment, were of the greatest importance for the audit of the Consolidated Financial Statements for the fiscal year, and of how we addressed these risks.

The assessments thus made are part of the audit of the Consolidated Financial Statements as a whole and contributed to the opinion we have expressed above. We express no opinion on the components of these Consolidated Financial Statements taken individually.

■ Going concern

Risk identified	How we addressed it
2018 was a pivotal year for SuperSonic Imagine, as it represented a period of transition between two product generations, the new Aixplorer MACH 30 platform having been launched in September 2018. Despite this, the Group continued to post a consolidated net loss in 2018 (-€13.3 million). Group operations are primarily funded through equity injections (in the form of capital increases), debt issues and borrowing.	We examined available or future financing and spending plans. Our work mainly focused on: ► analyzing spending plans for the twelve months following the reporting date and their consistency with the business and the Group's strategy; ► comparing the amount of financing required to expected spending; ► analyzing available credit facilities and, as the case may be, obtaining available supporting documentation. We also:

As stated in Note 2.2 to the Consolidated Financial Statements, the Company was treated as a going concern given the cash levels at end-December 2018, the sales outlook, the ability to annually pre-finance the 2017 Research Tax Credit, to factor trade receivables, the option under certain conditions to draw down Tranche 4 of the Kreos bonds, and ongoing negotiations with a series of financial partners regarding possible further new funding options.

Assessing estimated financing needs for the coming twelve months and the Group's ability to find appropriate financing was a key point of the audit of the fiscal year.

- examined 12-month cash flow forecasts prepared by the Finance Department including both credit facilities and sales forecasts;
- reconciled these forecasts with the actual performance at December 31, 2018 and the budget approved by the Board of Directors;
- reconciled past managerial estimates with actual performance at December 31, 2018;
- queried management regarding its knowledge of events or circumstances after December 31, 2018 that might impact future cash flow forecasts.

We also reviewed whether Note 2.2 to the Consolidated Financial Statements provides appropriate disclosure.

■ **Measurement of capitalized development costs**

Risk identified	How we addressed it
At December 31, 2018, the Group's net development costs totaled €14.7 million out of a total balance sheet of €51.3 million. The Group capitalizes expenses incurred in the course of developing its products when they satisfy the criteria in "IAS 38 – Intangible assets". These development costs mainly consist of the development costs for versions V3 to V12/Ultimate of Aixplorer as well as the expenses capitalized for the Aixplorer MACH 30 next generation ultrasound that was launched in September 2018. Note 3.4 to the Consolidated Financial Statements details how development costs are recognized as assets as well as how they are amortized and tested for impairment. As detailed in this note, development costs are capitalized when they satisfy the following criteria: ► The Group has the intention, financial capacity and technical capability to see the development project through; ► The Group has the resources necessary to finish the development and to use or market the product developed; ► There is a high probability that the future economic benefits attributable to the products developed will flow to the Group;	Our audit approach included the following steps: ► Reviewing the work done by the Group in determining whether development costs qualified for capitalization and in analyzing their compliance with IAS 38; ► Doing detailed tests on a sample of invoices and time sheets to assess whether the sums selected qualified for capitalization and were for projects qualifying for capitalization; ► Assessing the amortization principles and methods used for development costs; ► Assessing, primarily through interviews with management, the key data and assumptions underlying the choice of their amortization period; ► Examining the impairment testing procedures for development costs on products on the market and under development, and those used to calculate their value in use. We have checked the cash flow forecasts against the budgets prepared by management; ► Reviewing the appropriateness of the information provided in Note 3.4 to the Consolidated Financial Statements.

- The expenditure attributable to the intangible asset during its development can be reliably measured.

Capitalized developments are amortized on a straight-line basis over the estimated life of the product.

Development costs that are capitalized for ongoing projects, which cannot yet be amortized, are tested for impairment at least once a year. An impairment test is done on the net carrying amount of the capitalized and amortized development costs and an impairment loss recognized where necessary.

We considered the measurement of these development costs on the asset side of the balance sheet and the policies governing their amortization and impairment to be a key audit matter due to their significance for the Group's financial statements and the judgment required (i) when assessing whether development costs qualify for capitalization and (ii) when making the estimates and assumptions used to determine the amortization period for the development costs and their non-impairment.

■ **Revenue recognition**

Risk identified	How we addressed it
At December 31, 2018, the Group's revenue totaled €24.3 million. It is generated from the sale of Aixplorer and Aixplorer MACH 30 ultrasound medical imaging equipment in addition to service activities (primarily maintenance, updates and warranty extensions). In accordance with Note 3.17 to the Consolidated Financial Statements, the revenue generated from the sale of equipment is recognized when control of the asset is transferred to customers, typically upon delivery of the equipment. Revenue for services is recognized over the period when services are rendered and when collectability is reasonably assured. Revenue from multiple element arrangements, such as those including services is recognized as each element is earned based on the relative fair value of each element. We considered revenue recognition to be a key audit matter because of the material amount in the Group's financial statements, the range and number of contracts between the Group and its customers, and because effective internal control	Our audit approach regarding revenue recognition includes both looking at internal control and substantive testing of the financial statements themselves. Our work on internal control primarily involved an analysis of the contractual terms and conditions, invoicing and revenue recognition. We reviewed the internal control procedures established by the Group in this regard and the general revenue recognition policy, and tested the key checks identified in order to assess that they were applied. Our substantive testing with regard to revenue primarily consisted of: ► analyzing the contractual provisions on a sample of contracts, in particular the largest new contracts during the fiscal year, the contracts with the distributors, and the specific transactions in order to review the applicable accounting treatment; ► applying analytical procedures to the budget and the prior fiscal year; ► testing the substance of the revenue recognized for equipment sales by looking at

is important to ensure income is exhaustive and accurate.

- delivery notes for a selection of transactions over the fiscal year;
- testing the application of the matching principle by means of detailed tests.

Specific checks

In line with the professional standards applicable in France, we likewise performed the specific checks provided for by law and regulation regarding the disclosures on the Group, in the Management Report of the Board of Directors.
We have no comments to make as concerns their accuracy and conformity with the Consolidated Financial Statements.

Information derived from other statutory and regulatory obligations

Appointment of Statutory Auditors

We were appointed Statutory Auditors of SuperSonic Imagine at the Shareholders' Meeting of May 16, 2012 for the firm ARESXPERT AUDIT and July 5, 2010 for the firm ERNST & YOUNG et Autres.
As of December 31, 2018, ARESXPERT AUDIT was in the seventh continuous year of its engagement and ERNST & YOUNG et Autres in the ninth year, including five years since the company's stock was admitted to trading on a regulated market.

Responsibilities of management and those charged with governance for the Consolidated Financial Statements

Management is responsible for preparing consolidated financial statements pursuant to IFRS as adopted by the European Union that give a true and fair view and for putting in place whatever internal control it feels is necessary to prepare consolidated financial statements that are free from material misstatement, whether resulting from fraud or errors.
When preparing the Consolidated Financial Statements, Management must assess the company's ability to continue operating, presenting all relevant information in those financial statements and applying the going concern basis, except where there are plans to liquidate the company or to discontinue operations.
The Audit Committee is responsible for overseeing the process for preparing financial information and monitoring the effectiveness of internal control and risk management systems, as well as, where applicable, internal audit systems, with respect to procedures for preparing and processing accounting and financial information.
The Consolidated Financial Statements have been approved by the Board of Directors.

Responsibilities of Statutory Auditors in auditing the Consolidated Financial Statements

Audit objective and approach

Our role is to prepare a report on the Consolidated Financial Statements. Our objective is to obtain reasonable assurance about whether the Consolidated Financial Statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
As indicated in Article L. 823-10-1 of the French Commercial Code, our auditing of the financial statements does not represent a guarantee as to the viability or quality of the company's management.

In the course of an audit conducted in accordance with applicable professional standards in France, the Statutory Auditors exercise professional judgment throughout this audit. The Statutory Auditors also:

- identify and assess the risks of material misstatement of the Consolidated Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for its opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the Consolidated Financial Statements;
- evaluate the appropriateness of Management's application of the going concern basis and, depending on the evidence collected, the existence or otherwise of significant uncertainty regarding events or circumstances likely to imperil the company's ability to continue operating. This view is based on the evidence collected up to the date of the report, it being noted that subsequent circumstances or events may imperil continued operation. If significant uncertainty is found, the Statutory Auditors draw the attention of readers of their report to the disclosures in the Consolidated Financial Statements regarding this uncertainty or, if this information is not supplied or relevant, they issue a qualified opinion or choose not to issue an opinion;
- evaluate the overall presentation of the Consolidated Financial Statements and assess whether the Consolidated Financial Statements reflect the underlying transactions and events in a manner that achieves fair presentation;
- with respect to financial information on consolidated entities, the Statutory Auditors collect sufficient and appropriate evidence to express an opinion on the Consolidated Financial Statements. The Statutory Auditors are responsible for managing, overseeing and conducting the audit of the Consolidated Financial Statements and for the opinion expressed on these financial statements.

■ **Report to the Audit Committee**

We will submit a report to the Audit Committee detailing in particular the scope of the audit work and the program of work undertaken, along with the conclusions arising from our work. We also disclose any significant weaknesses in internal control that we have identified as regards the procedures relating to the preparation and processing of accounting and financial information.

The report to the Audit Committee contains the risks of material misstatements that we feel are the most critical for the audit of the Consolidated Financial Statements for the fiscal year and that accordingly constitute key audit matters, which we are required to detail in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of EU Regulation no. 537-2014 confirming our independence, as per the applicable rules in France found in particular in Articles L. 822-10 to L. 822-14 of the French Commercial Code and in the French Code of Ethics for Statutory Auditors. Where necessary, we discuss the risks to our independence and the safeguards applied with the Audit Committee.

Avignon and Montpellier, April 19, 2019

French original signed by the Statutory Auditors

Johan Azalbert Xavier Senent Frédérique Doineau

20.4.2 Statutory Auditors' Report on the Annual Financial Statements of SuperSonic Imagine SA

Statutory Auditors' Report on the Annual Financial Statements

Dear Shareholders,

Opinion

In performance of the engagement with which you have entrusted us, we audited the accompanying Annual Financial Statements of SuperSonic Imagine for the fiscal year ended December 31, 2018.

We certify that the Annual Financial Statements, prepared pursuant to French GAAP accounting rules and principles, provide a true and fair view of the operating results for the fiscal year ended, as well as of the financial position and assets of the company at year-end.

The above opinion is consistent with our report to the Audit Committee.

Basis for our opinion

■ Audit framework

We have carried out our audit in accordance with the professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Our responsibilities under these standards are detailed in the section of this report entitled "Responsibilities of the Statutory Auditors with respect to the audit of the Annual Financial Statements".

■ Independence

We carried out our audit work in accordance with the applicable rules on independence, for the period from January 1, 2018 to the date on which this report was issued. It should be noted that we did not provide any of the services prohibited under Article 5 (1) of EU Regulation no. 537/2014 or the French Code of Ethics for Statutory Auditors.

Key audit matters

Pursuant to the provisions of Articles L. 823-9 and R. 823-7 of the French Commercial Code on the basis for our opinion, we hereby inform you of the key audit matters relating to the risks of material misstatements that, in our professional judgment, were of the greatest importance for the audit of the Annual Financial Statements for the fiscal year, and of how we addressed these risks.

The assessments thus made are part of the audit of the Annual Financial Statements as a whole and contributed to the opinion we have expressed above. We express no opinion on the components of these Annual Financial Statements taken individually.

■ Going concern

Risk identified	How we addressed it
2018 was a pivotal year for SuperSonic Imagine, as it represented a period of transition between two product generations, the new Aixplorer MACH 30 platform having been launched in September 2018. Despite this, the entity continued to post a net loss in 2018 (-€13.6 million). Company operations are primarily funded through equity injections (in the form of capital increases), debt issues and borrowing. As stated in Note 1.2a to the Annual Financial Statements, the Company was treated as a	► We examined available or future financing and spending plans. Our work mainly focused on: ► Analyzing spending plans for the twelve months following the reporting date and their consistency with the business and the company's strategy; ► comparing the amount of financing required to expected spending; ► analyzing available credit facilities and, as the case may be, obtaining available supporting documentation. ► We also:

going concern given the cash levels at end-December 2018, the sales outlook, the ability to annually pre-finance the Research Tax Credit, to factor trade receivables, the option under certain conditions to draw down Tranche 4 of the Kreos bonds, and ongoing negotiations with a series of financial partners regarding possible further new funding options.

Assessing estimated financing needs for the coming twelve months and the company's ability to find appropriate financing was a key point of the audit of the fiscal year.

- examined 12-month cash flow forecasts prepared by the Finance Department including both credit facilities and sales forecasts;
- reconciled these forecasts with the actual performance at December 31, 2018 and the budget approved by the Board of Directors;
- reconciled past managerial estimates with actual performance at December 31, 2018;
- queried management regarding its knowledge of events or circumstances after December 31, 2018 that might impact future cash flow forecasts.

- We also reviewed whether Note 1.2a to the Annual Financial Statements provides appropriate disclosure.

■ **Measurement of capitalized development costs**

Risk identified	How we addressed it
At December 31, 2018, the Company's net development costs totaled €15 million out of a total balance sheet of €48.1 million. The Company capitalizes expenses incurred in the course of developing its products when they satisfy the criteria in the applicable accounting rules in France. These development costs mainly consist of the development costs for versions V3 to V12/Ultimate of Aixplorer as well as the expenses capitalized for the Aixplorer MACH 30 next generation ultrasound that was launched in September 2018. Note 1.2.1 to the Annual Financial Statements details how development costs are recognized as assets as well as how they are amortized and tested for impairment. As detailed in this note, development costs are capitalized when they satisfy the following criteria: - The company has the intention, financial capacity and technical capability to see the development project through; - The company has the resources necessary to finish the development and to use or market the product developed; - There is a high probability that the future economic benefits attributable to the products developed will flow to the company;	Our audit approach included the following steps: - Reviewing the work done by the Company in determining whether development costs qualified for capitalization and in analyzing their compliance with applicable accounting rules in France; - Doing detailed tests on a sample of invoices and time sheets to assess whether the sums selected qualified for capitalization and were for projects qualifying for capitalization; - Assessing the amortization principles and methods used for development costs; - Assessing, primarily through interviews with management, the key data and assumptions underlying the choice of their amortization period; - Examining the impairment testing procedures for development costs on products on the market and under development, and those used to calculate their value in use. We have checked the cash flow forecasts against the budgets prepared by management; - Reviewing the appropriateness of the information provided in Note 1.2.1 to the Annual Financial Statements.

- The expenditure attributable to the intangible asset during its development can be reliably measured.

Capitalized developments are amortized on a straight-line basis over the estimated life of the product.

Development costs that are capitalized for ongoing projects, which cannot yet be amortized, are tested for impairment at least once a year. An impairment test is done on the net carrying amount of the capitalized and amortized development costs and an impairment loss recognized where necessary.

We considered the measurement of these development costs on the asset side of the balance sheet and the policies governing their amortization and impairment to be a key audit matter due to their significance for the Company's financial statements and the judgment required (i) when assessing whether development costs qualify for capitalization, and (ii) when making the estimates and assumptions used to assess the amortization period for the development costs and their non-impairment.

■ **Revenue recognition**

Risk identified	How we addressed it
At December 31, 2018, the Company's revenue totaled €23.4 million. It is generated from the sale of Aixplorer and Aixplorer MACH 30 ultrasound medical imaging equipment in addition to service activities (primarily maintenance, updates and warranty extensions). In accordance with Note 1.2.11 to the Annual Financial Statements, revenue from products is recognized upon transfer of risks and ownership, in accordance with the contractually-agreed incoterms, provided the price is fixed and determined and when collectability is reasonably assured. Revenue for services is recognized over the period when services are rendered and when collectability is reasonably assured, applied prorata temporis for annual contracts. We considered revenue recognition to be a key audit matter because of the material amount in the company's financial statements, the range and number of contracts between the company and its customers, and because effective internal	Our audit approach regarding revenue recognition includes both looking at internal control and substantive testing of the financial statements themselves. Our work on internal control primarily involved an analysis of the contractual terms and conditions, invoicing and revenue recognition. We reviewed the internal control procedures established by the Company in this regard and the general revenue recognition policy, and tested the key checks identified in order to assess that they were applied. Our substantive testing with regard to revenue primarily consisted of: ► analyzing the contractual provisions on a sample of contracts, in particular the largest new contracts during the fiscal year, the contracts with the distributors, and the specific transactions in order to review the applicable accounting treatment; ► applying analytical procedures to the budget and the prior fiscal year;

control is important to ensure income is exhaustive and accurate.

- Testing the substance of the revenue recognized for equipment sales by looking at delivery notes for a selection of transactions over the fiscal year;
- Testing the application of the matching principle by means of detailed tests.

Specific checks

In line with the professional standards applicable in France, we have likewise performed the specific checks required by law and regulation.

- **Information in the management report and in other documents on the financial position and the Annual Financial Statements sent to shareholders**

We have no comments to make as to the accuracy and conformity with the Annual Financial Statements of the information provided in the Management Report of the Board of Directors and in the other documents on the financial position and the Annual Financial Statements sent to shareholders.

We confirm that the information on payment time limits required under Article D. 441-4 of the French Commercial Code is accurate and conforms with the Annual Financial Statements.

- **Information on corporate governance**

We confirm that the information required under Articles L. 225-37-3 and L. 225-37-4 of the French Commercial Code is in the corporate governance section of the Management Report of the Board of Directors.

As concerns the information provided in application of Article L. 225-37-3 of the French Commercial Code on compensation and benefits paid to corporate officers, as well as on the commitments granted to them, we have verified their consistency with the financial statements or with the data used to prepare these financial statements and, where applicable, with the information collected by your company from the companies that control it, or that are controlled by it. Based on this work, we certify that this information is true and accurate.

- **Other information**

In application of the law, we have ensured that the various information relating to the identity of holders of capital or voting rights was communicated to you in the Management Report.

Information derived from other statutory and regulatory obligations

- **Appointment of Statutory Auditors**

We were appointed Statutory Auditors of SuperSonic Imagine at the Shareholders' Meeting of May 16, 2012 for the firm ARESXPERT AUDIT and July 5, 2010 for the firm ERNST & YOUNG et Autres.

As of December 31, 2018, ARESXPERT AUDIT was in the seventh continuous year of its engagement and ERNST & YOUNG et Autres in the ninth year, including five years since the company's stock was admitted to trading on a regulated market.

Responsibilities of management and those charged with governance for the Annual Financial Statements

Management is responsible for preparing annual financial statements pursuant to French GAAP accounting rules and principles that give a true and fair view and for putting in place whatever internal control it feels is necessary to prepare annual financial statements that are free from material misstatement, whether resulting from fraud or errors.

When preparing the Annual Financial Statements, Management must assess the company's ability to continue operating, presenting all relevant information in those financial statements and applying the

going concern basis, except where there are plans to liquidate the company or to discontinue operations.
The Audit Committee is responsible for overseeing the process for preparing financial information and monitoring the effectiveness of internal control and risk management systems, as well as, where applicable, internal audit systems, with respect to procedures for preparing and processing accounting and financial information.
The Annual Financial Statements have been approved by the Board of Directors.

Responsibilities of Statutory Auditors in auditing the Annual Financial Statements

■ Audit objective and approach

Our role is to prepare a report on the Annual Financial Statements. Our objective is to obtain reasonable assurance about whether the Annual Financial Statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
As indicated in Article L. 823-10-1 of the French Commercial Code, our auditing of the financial statements does not represent a guarantee as to the viability or quality of the company's management.
In the course of an audit conducted in accordance with applicable professional standards in France, the Statutory Auditors exercise professional judgment throughout this audit. The Statutory Auditors also:

- identify and assess the risks of material misstatement of the Annual Financial Statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for its opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of internal control;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the Annual Financial Statements;
- evaluate the appropriateness of Management's application of the going concern basis and, depending on the evidence collected, the existence or otherwise of significant uncertainty regarding events or circumstances likely to imperil the company's ability to continue operating. This view is based on the evidence collected up to the date of the report, it being noted that subsequent circumstances or events may imperil continued operation. If significant uncertainty is found, the Statutory Auditors draw the attention of readers of their report to the disclosures in the Annual Financial Statements regarding this uncertainty or, if this information is not supplied or relevant, they issue a qualified opinion or choose not to issue an opinion;
- Evaluate the overall presentation of the Annual Financial Statements and assess whether the Annual Financial Statements reflect the underlying transactions and events in a manner that achieves fair presentation.

■ Report to the Audit Committee

We will submit a report to the Audit Committee detailing in particular the scope of the audit work and the program of work undertaken, along with the conclusions arising from our work. We also disclose any significant weaknesses in internal control that we have identified as regards the procedures relating to the preparation and processing of accounting and financial information.

The report to the Audit Committee contains the risks of material misstatements that we feel are the most critical for the audit of the Annual Financial Statements for the fiscal year and that accordingly constitute key audit matters, which we are required to detail in this report.
We also provide the Audit Committee with the declaration provided for in Article 6 of EU Regulation no. 537-2014 confirming our independence, as per the applicable rules in France found in particular in Articles L. 822-10 to L. 822-14 of the French Commercial Code and in the French Code of Ethics for Statutory Auditors. Where necessary, we discuss the risks to our independence and the safeguards applied with the Audit Committee.
Avignon and Montpellier, April 19, 2019

French original signed by the Statutory Auditors

ARESXPERT AUDIT — ERNST & YOUNG et Autres

Johan Azalbert — Xavier Senent — Frédérique Doineau

20.4.3 Other information verified by the Statutory Auditors

Expenses and charges that are not tax deductible:
In application of Articles 223 quater and 39.4 of the French General Tax Code (CGI), the amount of non-tax-deductible expenses and charges amounted to €35,157. These mainly concern the share of non-deductible leases of passenger vehicles.

Information concerning time limits for supplier and customer payments:

	Invoices received and unpaid on the reporting date that are due						Invoices sent and unpaid on the reporting date that are due					
	0 days	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days and over**	**Total (1 day and over)**	**0 days**	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days and over**	**Total (1 day and over)**
(A) Late payment tranches												
Number of invoices involved	117	175	51	50	284	677	229	91	24	11	342	697
Total amount of invoices in question including VAT	851,318	775,830	212,862	234,425	549,180	2,623,616	5,525,703	2,004,917	24,113	-13,658	2,921,255	10,462,330
% of total purchases in the fiscal year including VAT	3%	2%	1%	1%	2%	8%						
% of revenue for the fiscal year including VAT							23%	8%	0%	12%	44%	
(B) Invoices excluded from (A) relating to disputed payables and receivables or not recognized												
Number of invoices excluded												
Total amount of invoices excluded												
(C) Reference payment time limits used (contractual or statutory – Article L. 441-6 or Article L. 443-1 of the French Commercial Code)												
Reference payment time limits used to calculate overdue payments	Contractual time limits: depending on the supplier						Contractual time limits: depending on the client					

Five-year results of SuperSonic Imagine S.A.
SuperSonic Imagine SA's results for the last 5 years were as follows:

	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2017	Dec. 31, 2018
CAPITAL AT YEAR-END					
Share capital	1,606,823	1,621,718	1,627,148	2,320,913	2,341,663
Number of ordinary shares in existence	16,068,228	16,217,179	16,271,481	23,209,127	23,416,627
Number of priority dividend shares in existence	-	-	-	-	-
Maximum number of future shares to be created	1,525,831	1,420,663	1,081,861	2,647,455	4,454,047
-by conversion of bonds	50,000	50,000	50,000	681,579	2,621,152
-by exercise of a subscription right	1,475,831	1,370,663	1,031,861	1,965,876	1,832,895
OPERATIONS AND RESULTS					
Revenue before taxes	19,394,154	19,453,452	22,145,581	23,834,757	23,352,086
Result before taxes, employee participation and allocations to amortization and depreciation and provisions	-6,845,839	-10,432,678	-5,436,495	-8,657,592	-8,746,000
Income tax	-1,749,560	-2,075,666	-2,226,788	-2,128,712	-2,356,000
Employee participation for the fiscal year	-	-	-	-	-
Result after taxes, employee participation and allocations to amortization and depreciation and provisions	14,580,845	14,938,481	-9,963,993	-10,192,444	-13,597,000
Distributed earnings	-	-	-	-	-
EARNINGS PER SHARE					
Result after taxes and employee participation but before allocations to amortization and depreciation and provisions	-0,317	-0,515	-0,197	-0,281	-0,273
Result after taxes, employee participation and allocations to amortization and depreciation and provisions	-0,907	-0,921	-0,612	-0,439	-0,581
Per-share dividend distributed	-	-	-	-	-
PERSONNEL					
Average headcount of staff employed during the fiscal year	94	103	104	114	121
Amount of payroll for the fiscal year	7,456,210	8,391,392	7,081,390	7,401,665	7,325,532
Total amount paid in employee benefits for the fiscal year	3,144,580	3,126,970	2,760,453	997,441	3,009,000

20.5. DATE OF THE MOST RECENT FINANCIAL INFORMATION

December 31, 2018

20.6. INTERIM CONSOLIDATED FINANCIAL INFORMATION

No financial information has been published since December 31, 2018.

Before that date, the most recent audited information published was the Consolidated Financial Statements and Notes at June 30, 2018, included in the interim financial report which is available on the Group's website in the Investor section.

20.7. DIVIDEND DISTRIBUTION POLICY

20.7.1. Dividends paid during the last three fiscal years

The Group has not paid a dividend during the last 3 fiscal years and does not intend to pay one in 2019.

20.7.2. Dividend distribution policy

Given the Company's stage of development, it does not anticipate initiating a dividend payment policy in the short term.

20.8. LEGAL PROCEEDINGS AND ARBITRATION

- In China, the Group had chosen to terminate the exclusive distribution agreement between it and its distributor in April 2013. The latter had disputed and blocked the payment of the amounts due, a total of €474,000.

On October 22, 2009, the Company had signed an exclusive distribution contract with its distributor for some of its products in China (excluding Taiwan, Hong Kong and Macao) for a four-year term to start once the authorizations for marketing said products were obtained from the competent authorities, which occurred on July 14, 2010. The contract was subject to French law and contained an arbitration clause, which process would be carried out before an arbitral tribunal formed in application of the Rules of Arbitration of the International Chamber of Commerce.

In April 2013, the Company terminated this contract, in particular noting that its distributor had not achieved its contractual objectives, and offered it a new distribution agreement to sign. After discussion between the parties, the distributor summoned the Company before the Beijing Chaoyang district court, and the intermediate district court of Beijing, in particular asking to continue the

contract and extend it, given its interruption during the discussions between the parties, and that the Company comply with its exclusivity arrangement, disputing to that end the Company's statements and the applicability of the contractual arbitration clause. In September 2013, the Company had commenced an arbitration proceeding before the International Chamber of Commerce for payment of amounts owed under the contract as well as for damages.

The Company had prevailed, as per a decision handed down on October 30, 2014 by an arbitral tribunal that was formed in application of the Arbitration Regulations of the International Chamber of Commerce. In October 2014 as well, the Intermediate District Court of Beijing rendered its decision, affirming that the Arbitral Tribunal formed under the auspices of the International Chamber of Commerce was the sole party competent to hear all of the disputes relating to the agreement between the company and its distributor, and dismissed its claims against the company before the Chaoyang Beijing District Court.
The arbitral award thus ordered the Chinese distributor to repay its debt (€474,000, fully provisioned), and that it pay €1 million in principal for other damage suffered by the Group. In 2014, the income expected for damage suffered was recorded on the assets side of the balance sheet under other current assets for €1 million, and then fully provisioned to the extent that it was uncertain that the distributor would be able to honor the judgment.

As of the date of this report, proceedings for recovery were ongoing.

- On November 22, 2017, Verasonics Inc. ("Verasonics") sued SuperSonic Imagine ("SSI") in the Western District of the State of Washington in the United States. Verasonics claims that SSI manufactures, uses, offers for sale and imports its Aixplorer product in infringement of its patents U.S. No. 8,287,456, U.S. No. 9,649,094 and U.S. No. 9,028,411 and misappropriates Verasonics' so-called trade secrets under the cover of the Trade Secrets Act of the State of Washington. Verasonics is seeking damages along with declaratory and injunctive relief. On June 5, 2018, SSI responded to the complaint, denying that it infringed Verasonics' patents or misappropriated its so-called trade secrets. SSI asserts that Verasonics' patents are invalid, and in so doing rejects Verasonics' claim for damages.

On October 8, 2018, SSI filed a complaint in the State of Washington claiming that Verasonics manufactures, uses, offers for sale and imports an ultrasound imaging product that infringes patent U.S. No. 7,252,004, seeking damages along with declaratory and injunctive relief. On January 24, 2018, Verasonics responded to the complaint denying that it infringed the patent.

A judgment is expected to be delivered in September 2020. SSI intends to vigorously defend itself against the complaints filed by Verasonics and to pursue Verasonics for infringing its patent.

- There were no other governmental, legal or arbitration proceedings, including any proceedings of which the Company is aware, that are pending or threatened, which are likely to have or have had in the course of the last 12 months any material effect on the financial position or profitability of the Company and/or Group.

20.9. SIGNIFICANT CHANGES IN FINANCIAL OR BUSINESS POSITION

To the best of the Company's knowledge, there has been no significant change in the Group's financial or business situation since December 31, 2018.

21. ADDITIONAL INFORMATION

21.1. SHARE CAPITAL

21.1.1. Amount of the share capital

At the date of registration of this document, the Company's share capital amounted to €2,341,693.50, divided into 23,416,935 ordinary shares with a nominal value of €0.1 each, fully paid-up.

21.1.2. Non-equity securities

None.

21.1.3. Acquisition by the Company of treasury shares

Resolution 15 of the Company's Combined Shareholders' Meeting on May 28, 2018:

- **Authorized** the Management Board, or in the event of a change to the Company's governance structure the Board of Directors, with the right to further delegate in the manner provided for by law, for a period of eighteen months therefrom, to acquire Company shares, in accordance with Articles L. 225-209 et seq. of the French Commercial Code;
- **Resolved** that in the absence of a change to the Company's governance structure, the Management Board should seek the approval of the Supervisory Board before using this authorization;
- **Resolved** that these shares may be acquired, disposed of or transferred, on one or more occasions, in particular on the market or over the counter, including through block purchases or sales, public offerings, the use of options or derivatives, in the manner permitted by market authorities and in line with applicable regulations.

The main terms of this authorization were as follows:

- maximum number of shares that may be purchased: 10% of the total number of shares, at any time, it being stipulated that, when the shares are purchased with the goal of facilitating the liquidity of the Company's shares, the number of shares taken into account for the calculation of this limit will correspond to the number of shares purchased, reduced by the number of shares re-sold during the authorization period; when they are bought for the purpose of being retained and used later as payment or for exchange in connection with a merger, spin-off, or contribution, the number of shares purchased may not exceed 5% of the total number of shares.

The authorization may be used to:

- Promote the liquidity of the Company's shares under a liquidity agreement to be entered into, as may be appropriate, with an investment services provider, complying with the ethics charter recognized by the AMF;
- Meet its obligations under share purchase options, free share and employee savings plans and other awards of shares to the employees and directors of the Company and its affiliates;
- Allot shares upon exercise of rights attached to securities giving access to the share capital;
- Purchase shares in order to retain and deliver them at a later stage in payment or exchange in acquisitions;
- Cancel some or all of the shares bought back in the manner indicated therein.

Maximum purchase price (excluding expenses and commission): €15, it being noted that this purchase price shall be adjusted as necessary to reflect changes to the share capital (in particular the capitalization of reserves and allocation of free shares, share splits or reverse splits) made during the period of validity of this authorization;
Maximum total amount of purchases: €3 million.

The Company has established a liquidity agreement for these instruments, for which the procedures and flows for the fiscal year are described in Section 20.1 of this document, Note 16.3.
At December 31, 2018, the number of treasury shares held under this agreement with Gilbert Dupont was 110,931, in addition to €65,000 in cash.

21.1.4. Securities giving rights to an interest in the capital

As of the date of this document, securities and other instruments currently issued and outstanding that give access to the Company's share capital are as follows.

21.1.4.1. FOUNDERS' WARRANTS (BONS DE SOUSCRIPTION DE PARTS DE CREATEUR D'ENTREPRISE (BSPCE))

	10-2008 BSPCE
Date of the Shareholders' Meeting	Oct. 23, 08
Management Board date	Nov. 5, 09
Number of BSPCE authorized	79,750
Number of BSPCE granted	29,600
Total number of shares that can be subscribed[1]	296,000
Of which number can be subscribed by current directors [1]	0
Number of non-director beneficiaries (at outset)	55
Start date for the exercise of the founders' warrants	Nov. 5, 10
Expiration date of the founders' warrants	Nov. 5, 19
Subscription price per share	€8.847
Terms of exercise	[2]
Number of shares subscribed at April 8, 2019 resulting from the exercise of the founders' warrants[1]	5,000
Cumulative number of shares canceled or void resulting from the founders' warrants allocated [1] [3]	171,173
Adjustment following the capital increase	2,356
Maximum number of shares at April 8, 2019 resulting from the exercise of all the founders' warrants [1]	122,183
Number of shares that could result from the exercise of founders' warrants exercisable at April 8, 2019 [1]	122,183

(1) The figures take into account the 10-1 stock split decided upon by the Combined General Meeting of Shareholders held on May 16, 2012.
(2) These founders' warrants are all exercisable at the date of this document.
(3) Cancellations of founders' warrants are the result of the departure of the employee beneficiaries.

21.1.4.2. SHARE WARRANT (BONS DE SOUSCRIPTION D'ACTIONS (BSA)) PLAN

The share warrant plans still in effect to date include:

- 3 plans for corporate officers and/or employees and outside consultants, described below,
- 1 plan (BSA OBSA) resulting from the issuance of Norgine bonds with share warrants completed in December 2013 (see Note 21.1.4.5),
- 1 plan (BSA OBSA) resulting from the issuance of Kreos bonds with share warrants completed in March 2017, December 2017 and December 2018 (see Note 21.1.4.6),

	10-2008 warrants	2013 warrants	2017 warrants
Date of the Shareholders' Meeting	Oct. 23, 08	Mar. 22, 13	May 15, 17
Management Board date	Apr 16, 10	Oct. 4, 13	Nov. 22, 17

Number of warrants authorized	79,750	989,715	1,500,000
Number of warrants issued	16,950	27,000	100,000
Total number of shares that could be subscribed by exercise of warrants (1)	169,500	27,000	100,000
Of which number can be subscribed by current directors (1)	-	-	100,000
Directors concerned:			
Michael Brock	-	-	100,000
Number of non-director beneficiaries (at outset)	14	2	0
Start date for the exercise of warrants	(2)	(2)	Nov. 22, 18
Expiration date of the warrants	Apr. 16, 20	Oct. 4, 23	Nov. 21, 27
Issue price of the warrants	€0.10	€0.01	€0.31
Exercise price of warrants(1)	€8.847	€0.10 (3)	€1.86
Terms of exercise	(2)	(2)	(5)
Number of shares subscribed at April 8, 2019 resulting from the exercise of warrants (1)	-	18,300	-
Cumulative number of shares canceled or void resulting from the exercise of warrants (1)(4)	159,500	6,000	-
Adjustment following the capital increase	266	72	-
Maximum number of shares at April 8, 2019 that could result from the exercise of all the warrants (1)	10,266	2,772	100,000
Number of shares that could result from the exercise of warrants exercisable at April 8, 2019 (1)	10,266	2,772	33,333

(1) These figures take into account the 10-1 share split decided on by the Combined Shareholders' Meeting held on May 16, 2012. Following this, a warrant affords its bearer the right to subscribe for 10 new shares.
(2) These warrants are all exercisable at the date of this document
(3) The exercise price of 09-2010 BSA, and of the 2013 BSA, determined by an independent expert, takes into account the fact that the ordinary shares to which they give the right to subscribe did not have a favorable ranking for the preferential distribution of the Company's sale price that was stipulated in the shareholders' agreement in effect when they were allotted.
(4) The BSA cancellations arising from death, waiver or departure of their beneficiaries.
(5) Exercisable by tranche of 33.33% at the end of 12, 24 and 36 month vesting periods from the Award within at most 4 years and subject to continued employment.

21.1.4.3. STOCK OPTION OR PURCHASE PLAN

	Ordinary stock options	Exchange free share (AGA) stock options (4)	SO 09-2014
Date of the Shareholders' Meeting	Mar. 22, 13	Mar. 22, 13	Mar. 3, 14
Management Board date	Oct. 4, 13	Oct. 4, 13	Sep. 19, 14
Number of stock options authorized	989,715	989,715	963,479
Number of stock options allocated	381,250	254,500	411,850
Total number of shares that could be subscribed(1)	381,250	254,500	411,850

Of which number can be subscribed by current directors (1)	-	-	-
Number of non-director beneficiaries (at outset)	72	4	0
Start date for the exercise of the S.O.	Oct. 4, 14	Oct. 4, 13	Sep. 19, 14
Expiration date of the S.O.	Oct. 4, 23	Oct. 4, 23	Sep. 18, 24
Subscription price per share	€0.10 (3)	€0.10 (3)	€8.40
Terms of exercise	(2)	(2)	(2)
Number of shares subscribed at April 8, 2019 (1)	47,403	5,000	-
Cumulative number of S.O. exercised	308	-	-
Adjustment following the capital increase	8,566	6,605	-
Cumulative number of S.O. canceled or void	-	-	308,886
Stock options remaining as at April 8, 2019	342,105	256,105	102,964
Maximum number of shares at April 8, 2019 that could result from the exercise of all the S.O. (1)	342,105	256,105	102,964
Number of shares at April 8, 2019 that could result from the exercise of all the exercisable S.O. (1)	342,105	256,105	102,964

(1) These figures take into account the 10-1 share split decided on by the Combined Shareholders' Meeting held on May 16, 2012.
(2) These stock options can all be exercised at the date of this document.
(3) The exercise price for the Ordinary and Exchange Stock Options, determined by an independent expert, takes into account the fact that the ordinary shares to which they give the right to subscribe did not have a favorable ranking for the preferential distribution of the Company's sale price that was stipulated in the shareholders' agreement in effect when they were allotted.
(4) The Stock Option Exchange Plan was allocated as compensation for its beneficiaries' waiver of the free share plan which had been allocated to them by the Management Board on September 30, 2011.

21.1.4.4. FREE SHARE ALLOCATIONS

On March 31, 2017, the Management Board had awarded a total of 1,073,500 free performance shares for the Company's employees and corporate officers under authorizations granted by the Combined Shareholders' Meeting of June 24, 2016.

On April 26, 2018, the Management Board, after consulting the Supervisory Board, decided to change the performance conditions for the 2017 Performance Shares.

The former performance conditions were thus dropped in favor of a new performance condition (the "**Performance Condition**") corresponding to achievement of a target ratio of Company EBITDA to Revenue (the **"EBIDTA/Revenue Ratio**"). This condition should also be assessed annually for the delivery of each of the remaining tranches of 2017 Performance Shares, starting with the tranche vesting on March 31, 2019.
The Performance Shares will be delivered to each Beneficiary for each tranche at the end of each Vesting Period subject to the Company's achievement of a performance condition (the "**Performance**

Condition") corresponding to a target ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**").

In March 2018, 207,500 new shares were created for delivery of the first tranche following achievement of the performance targets.

Moreover, on April 26, 2018, the Management Board awarded 114,000 new free performance shares to the Company's employees under authorizations granted by the Combined Shareholders' Meeting of June 24, 2016.
The Performance Shares will effectively vest and be delivered to beneficiaries in tranches in the following proportions after the vesting periods indicated:

- twenty percent (20%) at the end of a twelve (12) month vesting period following the Award;
- twenty percent (20%) at the end of a twenty-four (24) month vesting period following the Award;
- twenty percent (20%) at the end of a thirty-six (36) month vesting period following the Award;
- twenty percent (20%) at the end of a forty-eight (48) month vesting period following the Award;
- twenty percent (20%) at the end of a sixty (60) month vesting period following the Award.

During the vesting periods, the beneficiaries don't own the shares awarded to them and may not transfer the rights arising from such awards. The free shares will be delivered to their beneficiaries at the end of this vesting period.

Performance Shares will only be delivered to beneficiaries who remain an employee or corporate officer of the Company or of an associate throughout the vesting period for each tranche, except where otherwise provided for under the Plan and below.

Except in special instances considered by the Board of Directors, beneficiaries irrevocably lose their Performance Shares for unvested tranches:

- where their resignation takes effect before the end of a vesting period, the loss of the Performance Shares shall take effect on the date of the end of the employment contract or of the corporate office of the beneficiary;
- in the event of dismissal or termination for any reason whatsoever before the end of the Vesting period, the loss of the Performance Shares shall take effect on the date of notification of dismissal or termination, as the case may be.

The Performance Shares will be delivered to each Beneficiary for each tranche at the end of each Vesting Period subject to the Company's achievement of a performance condition (the "**Performance Condition**") representing a target ratio of Company EBITDA to Revenue (the "**EBIDTA/Revenue Ratio**").

The EBITDA/Revenue ratio is calculated for each tranche by dividing Company EBITDA by Revenue in the fiscal year immediately preceding the corresponding Vesting Date. If the actual EBITDA/Revenue Ratio is equal to or greater than 80% of the target EBITDA/Revenue Ratio for the fiscal year in question, the number of Shares to be delivered shall be equal to 100% of the Performance Shares awarded for the tranche in question, before the adjustments provided for in Article 7 below. If it is under 80% of the target EBITDA/Revenue Ratio, no Share will be delivered for the tranche in question.

	2017 free share plan	2018 free share plan
Date of the Shareholders' Meeting	Jun. 24, 16	Jun. 24, 16
Management Board date	Mar. 31, 17	April 26, 18
Number of free shares allocated	1,073,500	114,000
Of which number of shares that may vest for the current corporate officers	300,000	-
Directors concerned:		
Michèle Lesieur	300,000	-
Start date of the vesting period	Mar. 31, 17	April 28, 18
Expiration date of the lock-in period	(1)	(1)
Vesting conditions	(2)	(2)
Number of shares awarded at April 8, 2019	1,073,500	114,000
Total number of free shares canceled or void	(32,500)	-
Number of free shares vested	207,500	-
Number of free shares remaining at April 8, 2019 that may result from their vesting	782,500	1,140

(1) For each Performance share tranche, 12 months from vesting.

(2) The Performance Shares will effectively vest and be delivered to the beneficiaries in tranches of 20% at the end of 12, 24, 36, 48 and 60 month vesting periods from the Award. During the vesting periods, the beneficiaries don't own the shares awarded to them and may not transfer the rights arising from such awards. The free shares will be delivered to their beneficiaries at the end of this vesting period.

21.1.4.5. BOND ISSUE WITH CLASS D PREFERRED SHARE WARRANT: NORGINE

The €5 million issue in 2013 was redeemed in March 2017.

Characteristics of Warrants (BSA)
Number: a warrant is attached to each bond (i.e. 50,000 warrants).

Exercise ratio: each warrant entitles its bearer to subscribe for a share with a unit price of €10.

Exercise period: Due to the Company's IPO in April 2014, these warrants became exercisable through December 17, 2023.
See Note 18.2 to the consolidated financial statements presented in Section 20.1 of this document.

21.1.4.6. BOND WITH WARRANT ISSUE: KREOS

2017 Kreos bond (Tranches 1 and 2)

The March 13, 2017 meeting of the Management Board, pursuant to the powers granted in resolution 14 of the Combined Shareholders' Meeting of June 24, 2016, and following the authorization of the Supervisory Board on March 13, 2017, resolved to arrange a €12 million Venture Loan type bond issue involving the issue of bonds with share warrants (OBSA) issued with preferential subscription rights being waived in favor of Kreos Capital V (UK) Ltd with its registered office at 5th Floor, 25-

28 Old Burlington Street, London W1S 3AN, UK, company No. 09728300 (hereinafter, "**Kreos**"), the key terms of which are as follows:

Key characteristics of the loan
The €12 million loan arranged with Kreos consists of two €6 million tranches of bonds with share warrants (OBSA).
The first tranche was subscribed following the Management Board meeting of March 13, 2017.
The second tranche was issued in December 2017 at the request of the Management Board.
The loan is for a period of 42 months and bears interest at an annual rate of 10.75%.
In order to guarantee all of the Company's obligations under the Venture Loan, it provided a number of securities: pledge of bank accounts, pledge of receivables and pledge of some intellectual property rights (see Sections 11.2.2 and 11.3.1 for the details of these pledges).
A representative of Kreos is entitled to attend meetings of the Board of Directors of SuperSonic Imagine as a non-voting member (*censeur*).

The 12,000,000 warrants that had been awarded to Kreos in 2017 for tranches 1 and 2 were wholly surrendered by Kreos upon awarding of Tranche 3 described below on December 13, 2018. There are thus no longer any warrants outstanding for the Kreos bond Tranches 1 and 2.

2018 Kreos bond (Tranche 3)
On December 13, 2018, the Company issued a new €12 million bond to Kreos comprising two €6 million tranches, each of which had €4.8 million in plain vanilla bonds and €1.2 million in bonds convertible into shares with warrants and will help finance the commercial development of SuperSonic Imagine and the repayment of certain existing debts.

The first tranche (Tranche 3) for €6 million was subscribed following the December 13, 2018 meeting of the Board of Directors.

The second tranche (Tranche 4), namely for €6 million, will be realizable by September 30, 2019 subject to certain financial performance conditions and additional financing.

The loan's terms and conditions are as follows:

(1) The loan is for a period of 42 months (42 monthly installments with capital repayments deferred for 6 months) at an annual interest rate of 10.75%;

(2) Standard pledges have been provided by SuperSonic Imagine over the bank accounts, inventories, intellectual property and certain trade receivables (see Note 39.2 to the consolidated financial statements)

(3) Option for the Company to redeem early these plain vanilla bonds at any time, provided all are redeemed. The penalties payable will thus be equal to the sum of future interest owed discounted at 10% per annum.

(4) Kreos may convert some or all of the convertible bonds into shares at any time. Each convertible bond may be converted into a number of N_{CS} new ordinary shares calculated using the following formula:

The number of Conversion Shares to be issued to the Subscriber upon service of a Conversion Notice shall be equal to the result of following formula:

$$N_{CS} = CR * N_{CB}$$

Where:

N_{CS} means the number of Conversion Shares

CR means the Conversion Ratio, and

N_{CB} means the number of Convertible Bonds to be converted in accordance with the Conversion Notice.

The Conversion Ratio will be equal to the result of the following formula:

$$CR = 1 / (P - D)$$

Where:

P: means the lower of (i) 100% of the volume weighted average price per share of all shares traded on the NYSE Euronext in Paris for the 30-day period ending ten days prior to the Completion Date and (ii) the share price paid by investors in any new financing round, being specified however that P may not be lower than the floor determined by the General Meeting, in its 26th and 28th resolutions, i.e. the lower of (i) the volume weighted average price per share of all shares traded on the NYSE Euronext in Paris for the 3-day period ending the day before the day on which P is determined, discounted by 5%, and (ii) the volume weighted average price per share of all shares traded on NYSE Euronext in Paris for the 3-month period ending the day before the day on which P is determined, discounted by 15%;

D: means the cumulated amounts of dividends per share paid by the Issuer between Completion Date and the Conversion Date.

(5) The 1,200,000 warrants issued with the Tranche 3 convertible bonds will entitle the holder to subscribe for a number of shares calculated using the following formula (the "Exercise Ratio") at an exercise price P:

R = [(2,640,000 / P) * { 0.5 + [0.5 * (NB / 12,000,000)] }] / NW

where: R: means the Exercise Ratio

P: means the lower of (i) €1.5811 and (ii) the unit price of a share in a subsequent fund-raising round, it being noted that P may not be under €1.2368. Accordingly, each share warrant holder may subscribe for the number of shares ("N") resulting from the following formula: N = R * NBSA where: R: means

the Exercise Ratio, and NBSA: means the number of share warrants held by the relevant share warrant holder.

The maximum total number of shares that may be issued upon conversion of the Tranche 3 convertible bonds is 970,246 shares, and upon exercise of the Tranche 3 warrants is 1,600,906 shares, namely a total maximum to be issued of 2,571,152 new shares.

21.1.4.7. SUMMARY OF DILUTIVE INSTRUMENTS

The exercise or vesting, as the case may be, of all of the securities and instruments providing access to the Company's capital would result in the issue of 7,314,474 new Company shares, i.e. a maximum dilution of 19% based on the capital at December 31, 2018, brought down to 15.99% based on the diluted voting rights and capital.

	Maximum number of new shares likely to result from their exercise
Founders' warrants (BSPCE)	122,183
Warrants (BSA)	113,038
Stock options	701,174
Free shares	896,500
Bonds (warrants and bonds convertible into shares with warrants) (a)	2,621,152
Total	**4,454,047**

(a) The 2,621,152 new shares break down into 50,000 new shares resulting from the 50,000 Norgine warrants described in Section 21.1.4.5 and 2,571,152 new shares resulting from the Kreos bonds convertible into shares with warrants described in Section 21.1.4.6.

21.1.5. Authorized Capital, Currently Valid Delegations

The currently valid resolutions concerning issues of securities approved by the Combined Shareholders' Meeting of May 28, 2018 (delegations to the Board of Directors), voting on an extraordinary basis, are summarized below:

Resolution No.: Type of delegation		
Type of securities authorized	**Number of securities or maximum nominal amount authorized**	**Subscription price of the security**
i- Exercise price of the share where applicable ii- Length of the authorization and date of expiration iii- Use		
24: Delegation of authority to increase the capital by issuing ordinary shares or any equity-linked security, maintaining shareholders' preferential subscription right		
Ordinary shares and/or securities which provide access through all means, immediately and/or in the future, to ordinary shares of the Company	The total nominal amount of the capital increases may not exceed €1,200,000 [1]	Free or for consideration
i- N/A ii- 26 months, date of expiration of July 27, 2020 iii- N/A		
25: Delegation of authority to increase the capital by issuing ordinary shares or any equity-linked securities, waiving shareholders' preferential subscription right, and a public offering		
Ordinary shares and/or securities which provide access through all means, immediately and/or in the future, to ordinary shares of the Company	The total nominal amount of the capital increases may not exceed €600,000 [1]	Free or for consideration. Price set by the Board of Directors according to the following terms: the issue price of the shares shall be at least equal to the weighted average price quoted over the last three trading days preceding its determination, where applicable, reduced by the maximum discount authorized by law (i.e., currently 5%) and adjusted for differences in ex-dividend date [2]
i- N/A ii- 26 months, date of expiration of July 27, 2020 iii- N/A		
26: Delegation of authority to increase the capital by issuing ordinary shares or any equity-linked security, waiving the preferential subscription right of shareholders as part of an offer to qualified investors or a restricted group of investors as per Article L. 411-2(II) of the French Monetary and Financial Code		
Ordinary shares and/or securities which provide access through all means, immediately and/or in the future, to ordinary shares of the Company	The total nominal amount of the capital increases may not exceed €480,000, and may not exceed the limits prescribed by the regulations which apply at the issue date [1]	Free or for consideration. Price set by the Board of Directors according to the following terms: the issue price of the shares shall be at least equal to the weighted average price quoted over the last three trading days preceding its determination, where applicable, reduced by the maximum discount authorized by law (i.e., currently 5%) and adjusted for differences in ex-dividend date [2]
i- N/A ii- 26 months, date of expiration of July 27, 2020 iii- December 13, 2018 meeting of the Board of Directors: issue of 1,200,000 convertible bonds with warrants with a par value of €1 each, representing total debt of €1,200,000. The conversion of the convertible bonds would give entitlement to the issue of a maximum of 970,245 shares, representing a maximum total capital increase of €97,024.50. The exercise of warrants would give entitlement to the issue of a maximum of 1,600,905 shares, representing a maximum total capital increase of €160,090.50.		
27: Delegation of authority to increase the share capital by issuing ordinary shares or equity convertible securities with the waiving of shareholders' preferential subscription rights for any credit institution, investment service provider or any other investment fund underwriting the capital increase(s) or other issues that may over time result in one or more capital increases under said authorization as part of an equity financing facility		

Ordinary shares and/or securities which provide access through all means, immediately and/or in the future, to ordinary shares of the Company	The total nominal amount of the capital increases may not exceed €480,000, and may not exceed the limits prescribed by the regulations which apply at the issue date [1]	Free or for consideration. Price set by the Board of Directors as follows: the issue price of the shares shall be at least equal to the weighted average price quoted over the three trading months preceding its determination, minus, where applicable, a maximum discount of 15% and adjusted for differences in ex-dividend date

i- N/A
ii- 18 months, date of expiration of November 27, 2019
iii- N/A

29: Delegation of authority to increase the number of securities to be issued in case of a capital increase with or without a preferential subscription right determined under resolutions 24 to 27

Same type as provided for in the resolution covering the increase	Within the limit of 15% of the initial issue	Same price as provided for in the resolution which could be subject to the increase

i- N/A
ii- 26 months, date of expiration of July 27, 2020
iii- N/A

30: Delegation of authority with the effect of issuing ordinary shares and equity-linked Company securities, in case of a public offering containing an exchange component initiated by the Company

Ordinary shares and/or securities which provide access through all means, immediately and/or in the future, to ordinary shares of the Company	The total nominal amount of the capital increases may not exceed €600,000 [1]	Exchange ratio as well as, where applicable, the amount of the cash balance payable as determined by the Board of Directors

i- N/A
ii- 26 months, date of expiration of July 27, 2020
iii- N/A

31: Delegation of powers to increase the share capital, up to at most 10% of the capital, to pay for contributions in kind of equity securities or equity-linked securities of third-party companies, outside of a public exchange offer

Ordinary shares of the Company or securities which provide access through all means, immediately and/or in the future, to ordinary shares of the Company	The total nominal amount of the capital increases may not exceed 10% of the Company's capital [1]	-

i- N/A
ii- 26 months, date of expiration of July 27, 2020
iii- N/A

33: Delegation of authority to increase the capital by incorporating premiums, reserves, profits or other

Ordinary shares	The total nominal amount of the capital increases may not exceed €50,000	-

i- N/A
ii- 26 months, date of expiration of July 27, 2020
iii- N/A

34: Authorization to grant Company share subscription or purchase options

Share purchase or subscription options	A maximum of 1,500,000 shares [3]	-

i- Price to be determined by the Board of Directors, in accordance with legal provisions
ii- 38 months, date of expiration of July 27, 2021
iii- N/A

35: Authorization for the Board of Directors to proceed with the free allocation of shares existing or to be issued

Free shares	A maximum of 1,500,000 shares [3]	-

i- N/A
ii- 38 months, date of expiration of July 27, 2021
iii- N/A

36: Delegation of authority to issue and award warrants to (i) members of the Company's Board of Directors on the basis of the warrant allocation date who are not employees or directors of the Company or of one of its subsidiaries or (ii) people linked by a service or consulting contract to the Company or to one of its subsidiaries or (iii) members of any committee that the Board of Directors has or may establish who are not employees or directors of the company or of one of its subsidiaries

Warrants ("**BSA**")	A maximum of 1,500,000 shares [3]	The issue price of a warrant will be determined by the Board of Directors on the date of issue of said warrant on the basis of its characteristics and will in any case be equal to at least 5% of the volume-weighted average price over the five (5) trading sessions on the Euronext Paris regulated market preceding the date of award of said warrant by the Board of Directors

i- Price to be determined by the Board of Directors, in accordance with legal provisions
ii- 18 months, date of expiration of November 27, 2019
iii- N/A

(1) Following the Combined Shareholders' Meeting of May 28, 2018 (resolution 32), the overall maximum nominal amount of capital increases that may be carried out under the delegations granted in resolutions 24 to 27, 29 to 31 and resolution 38 is set at €1.20 million, it being specified that this threshold will be increased by the additional amount of shares to be issued to maintain, in accordance with statutory or regulatory provisions and, where relevant, applicable contractual provisions, the rights of holders of equity-linked securities. The overall maximum nominal amount of debt securities that may be issued under resolutions 24 to 27, resolutions 29 to 31 and resolution 38 is set at €15 million (or the equivalent on the date of issue of this amount in a foreign currency or a unit of account established with reference to a basket of currencies).

(2) Resolution 28 of the Combined Shareholders' Meeting of May 28, 2018 authorizes the Board of Directors, with the option to further delegate, for a period of 26 months, for each issue decided under resolutions 25 to 27 and up to 10% of the Company's capital per 12-month period, to derogate from the terms and conditions governing the setting of prices stated in the above resolutions and to set the issue price of ordinary shares and/or immediate or deferred equity-linked securities, in the following manner:

- *The issue price of ordinary shares shall be at least equal to the weighted average price over the three trading months preceding the date of its determination, potentially reduced by a maximum discount of 15%, it being recalled that it cannot in any event be under the nominal value of a Company share on the date of issue of the shares in question;*
- *The issue price of equity-linked securities will be such that the sum received immediately by the Company, plus, as the case may be, any sum that may be received subsequently by it, shall, for every share issued as a result of the issue of these securities, at least equal the issue price defined in the above paragraph.*

(3) The Combined Shareholders' Meeting of May 28, 2018 (Resolution 37) resolved that the total number of shares issued under resolutions 34 to 36 may not exceed 1,500,000 shares in total.

21.1.6. Information concerning the share capital of all members of the Group subject to an option or a conditional or unconditional agreement allowing it to be placed under option

To the Company's knowledge, there are no options or conditional or unconditional agreements that provide for the establishment of such an option on the capital of a Group member.

Due to the Company's IPO in April 2014, the shareholders' agreement which entered into the scope of this note was automatically terminated.

21.1.7. History of the share capital

The following table presents a summary of the historical changes in the Company's share capital.

Date	Nature of operations	Number of shares issued or canceled	Capital in €	Share premium or contribution in €	Total nominal amount of share capital in €	Cumulative number of total shares outstanding	Nominal value in €	Issue (or exercise) price per adjusted share
Apr. 15, 09	Capital increase through issue of class 2 preferred shares	36,978	36,978	3,234,466	431,308	431,308	1.00	€ 8.85
Jun. 5, 09	Exercise of warrants $(BSA)_{10\text{-}2008\text{-}Tranche\ 1.2}$	45,211	45,211	3,954,606	476,519	476,519	1.00	€8.85
Nov. 23, 09	Exercise of warrants $(BSA)_{10\text{-}2008\text{-}Tranche\ 2}$	67,817	67,817	5,931,953	544,336	544,336	1.00	€8.85
Apr. 27, 10	Exercise of anti-dilutive warrants	42,230	42,230		586,566	586,566	1.00	€0.10
Sep. 27, 10	Capital increase through issue of C1 class preferred shares with $warrant_{C1\text{-}2010\text{-}R}$	153,204	153,204	13,400,754	739,770	739,770	1.00	€8.85
Sep. 27, 10	Capital increase through issue of C1a class preferred shares	1,096	1,096	81,323	740,866	740,866	1.00	€7.52
Sep. 27, 10	Conversion of bonds into C1 shares	66,886	66,886	4,962,941	807,752	807,752	1.00	€7.52
Nov. 25, 10	Capital increase through issue of C1 class preferred shares with $warrant_{C1\text{-}2010\text{-}R}$	48,981	48,981	4,284,368	856,733	856,733	1.00	€8.85
Dec. 30, 11	Exercise of warrant $(BSA)_{C2\text{-}2010\text{-}T2}$	106,746	106,746	9,808,890	963,479	963,479	1.00	€9.29
May 15, 12	Exercise of warrant $(BSA)_{C2\text{-}2010\text{-}T2}$	20,897	20,897	1,562,469	984,376	984,376	1.00	€7.58
May 16, 12	Division of the nominal value of shares				984,376	9,843,760	0.10	N/A
Mar. 27, 13	Capital increase through issue of class D preferred shares with warrant $(BSA)_{D\text{-}2013}$	1,255,502	125,550	12,429,470	1,109,926	11,099,262	0.10	€10.00
Apr. 15, 13	Capital increase through issue of class D preferred shares with warrant $(BSA)_{D\text{-}2013}$	150,000	15,000	1,485,000	1,124,926	11,249,262	0.10	€10.00
May 13, 13	Exercise of warrant $(BSA)_{D\text{-}2013\text{-}T2}$	30,554	3,055	302,485	1,127,982	11,279,816	0.10	€10.00
Sep. 30, 13	Definitive vesting of free shares	42,625	4,263	-	1,132,244	11,322,441	0.10	N/A

Dec. 16, 13	Exercise of BSA09-2010	4,125	413	-	1,132,657	11,326,566	0.10	€0.10
Dec. 16, 13	Exercise of founders' warrants 03-2006	5,000	500	28,690	1,133,157	11,331,566	0.10	€5.84
Dec. 31, 13	Definitive vesting of free shares	5,810	581	-	1,133,738	11,337,376	0.10	N/A
Mar. 3, 14	Reclassification of reserves below share premium	-		(22,550,179)	1,133,738	11,337,376	0.10	N/A
Apr. 9, 14	Capital increase in cash – IPO	4,273,504	427,350	45,132,000	1,561,088	15,610,880	0.10	€10.66
Apr. 9, 14	Creation of free shares	29,065	2,907		1,563,995	15,639,945	0.10	€ 0.10
May 9, 14	Shares created after the over-allotment	407,783	40,778	4,676,000	1,604,773	16,047,728	0.10	€11.57
Jun. 30, 14	Exercise of Stock options	6,500	650		1,605,423	16,054,228	0.10	€0.10
Dec. 31, 14	Exercise of founders' warrants (BSPCE)	5,000	500	43,735	1,605,923	16,059,228	0.10	€8.85
Dec. 31, 14	Exercise of Stock options	5,000	500		1,606,423	16,064,228	0.10	€0.10
Dec. 31, 14	Exercise of warrants	4,000	400		1,606,823	16,068,228	0.10	€0.10
Jun. 30, 15	Exercise of Stock options	153	15		1,606,838	16,068,381	0.10	€0.10
Jun. 30, 15	Exercise of founders' warrants (BSPCE)	2,200	220	12,624	1,607,058	16,070,581	0.10	€5.84
Jun. 30, 15	Exercise of warrants	22,000	2,200		1,609,258	16,092,581	0.10	€0.10
Dec. 31, 15	Exercise of Stock options	2,500	250		1,609,508	16,095,081	0.10	€0.10
Dec. 31, 15	Exercise of founders' warrants (BSPCE)	25,680	2,568	9,553	1,612,076	16,120,761	0.10	€0.47
Dec. 31, 15	Exercise of warrants	96,418	9,642	59,751	1,621,718	16,217,179	0.10	€0.72
Jun. 30, 16	Exercise of Stock options	27,500	2,750		1,624,468	16,244,679	0.10	€0.10
Jun. 30, 16	Exercise of warrants	21,802	2,180		1,626,648	16,266,481	0.10	€0.10
Dec. 31, 16	Exercise of Stock options	5,000	500		1,627,148	16,271,481	0.10	€0.10
Jun. 12, 17	Cash capital increase –	6,931,829	693,183	10,027,741	2,320,331	23,203,310	0.10	€1.66
Jun. 30, 17	Exercise of Stock options	3,250	325		2,320,656	23,206,560	0.10	€0.10
Dec. 31, 17	Exercise of Stock options	2,567	257		2,320,913	23,209,127	0.10	€0.10
Mar. 3, 18	Allocation of free shares	207,500	20,750	(20,750)	2,341,663	23,416,627	0.10	€0
Jan 2019	Exercise of stock options	308	31		2,341,694	23,416,935	0.10	€0.10

21.2. ARTICLES OF INCORPORATION AND BYLAWS

21.2.1. Corporate purpose

The Company's objectives are:

- Research and development in medical imaging;
- Marketing of all products related to diagnostics and therapy in the field of medicine;
- Marketing of all services and support relating to the medical products described above;
- Design and operation of all solutions arising directly or indirectly from the Company's R&D activities;
- As well as, more generally, all industrial and business activities relating to:
- The establishment, purchase, rental, responsibility for property management of a business, the leasing, the installation, and operation of any companies, businesses, factories, or workshops related to one or another of the activities described above;
- Holding, acquiring, operating or selling any procedures, patents and intellectual property rights concerning the activities described above;
- The direct or indirect investment by the Company in any financial, real estate or property transactions or commercial or industrial companies that may relate to the corporate purpose or any similar or associated purpose;
- Any transactions whatsoever contributing to the achievement of this purpose.

21.2.2. Management and Supervisory Bodies

21.2.2.1. BOARD OF DIRECTORS

21.2.2.1.1. COMPOSITION

The company is governed by a Board of Directors with a number of individuals or legal entities determined by the Ordinary Shareholders' Meeting within the confines of the law.

Upon appointment, each legal entity must appoint an individual as permanent representative to the Board of Directors. The term of office of the permanent representative is the same as that of the legal entity it represents. When a legal entity dismisses its permanent representative it must replace him/her as soon as possible. The same provisions apply in the event of the death or resignation of the permanent representative.

The term of office of directors is three years. The term of office of a director ends following the Ordinary Shareholders' Meeting having voted on the financial statements for the prior fiscal year held in the year in which that director's term of office expires.

Directors can be reappointed. They can be dismissed at any time by the Shareholders' Meeting.

In the event of a vacancy through death or resignation of one or more seats on the Board of Directors, the Board of Directors can temporarily fill positions between Shareholders' Meetings.

Appointments by the Board, by virtue of the above provision, are subject to ratification at the following Ordinary Shareholders' Meeting.

If they are not ratified, any prior resolutions and acts by the Board shall nevertheless remain valid.

When the number of directors falls below the legal minimum, the remaining directors must immediately call an Ordinary Shareholders' Meeting to appoint new members.

A company employee may be appointed director. His/her employment contract must nevertheless relate to actual employment. In this instance he/she will not lose the benefit of his/her employment contract.

No more than one third of serving directors may have an employment contract with the Company.

No more than one third of serving directors may be over 75 years of age. When this threshold has been exceeded during a term of office, the oldest director is deemed to resign following the upcoming Shareholders' Meeting.

21.2.2.1.2. CHAIRPERSON

The Board of Directors elects from amongst its members a chairperson who must be an individual. It determines the term of office, which cannot exceed the term of office as director, and can dismiss him/her at any time. The Board will determine any remuneration.

The chairperson organizes and presides over the Board's work and reports thereon to the Shareholders' Meeting. He/she sees to the effective functioning of the company's bodies and in particular that the directors are able to carry out their duties.

The Board chairperson cannot be over 75 years of age. If the chairperson reaches this age during his/her term of office as chairperson, he/she shall be deemed to have automatically resigned. His/her term of office shall nevertheless continue to the following meeting of the Board of Directors at which his/her successor shall be appointed. Subject to this limit, the Board chairperson may be reappointed.

21.2.2.1.3. MEETING OF THE BOARD OF DIRECTORS

The Board of Directors meets as often as necessary.

Board meetings are called by the Board chairperson. Meetings may be called by any means, either written or oral.

The CEO may also ask the chairperson to call a meeting of the Board of Directors to discuss specific matters.

Moreover, directors representing at least one third of Board members can validly call a Board meeting. Should they do so, they must specify the meeting agenda.

Where there is a Works Council, its representatives, appointed in accordance with the provisions of the French Labor Code, must be invited to all Board meetings.

Board meetings are held at the registered office or anywhere else in France or outside France.

For the Board's proceedings to be valid, at least half of its members must be in attendance.

Decisions of the Board of Directors are by majority vote. In the event of a tie, the person chairing the meeting has the casting vote.

Bylaws adopted by the Board of Directors may provide that, for the purposes of calculating the quorum and majority, directors participating in the Board meeting by videoconferencing or other means of telecommunications that comply with applicable regulations may be deemed present. This provision does not apply for the adoption of the decisions provided for in Articles L. 232-1 and L. 233-16 of the French Commercial Code.

Each director receives the information needed to carry out their duties and may obtain any documents they feel are necessary.

Directors may appoint another director as proxy to represent him/her at any Board meeting by letter, fax, email or any other electronic means. No director may represent more than one other at any given meeting.

Copies or excerpts from proceedings of the Board of Directors may be validly certified by the Chairperson of the Board of Directors, the CEO, a director temporarily filling in for the chairperson or a person duly empowered to this end.

21.2.2.1.4. POWERS OF THE BOARD OF DIRECTORS

The Board of Directors determines the company's business strategy and oversees its implementation. Subject to the powers expressly reserved for Shareholders' Meetings and within the scope of the corporate purpose, it may deal with any matter pertaining to the proper functioning of the company and takes decisions on any matter within its remit.

In dealings with a third party, the company is bound even by acts of the Board of Directors that are outside the corporate purpose, unless it is proven that the third party knew that the act was outside the corporate purpose or that such third party could not have been ignorant thereof given the circumstances, it being excluded that the mere publication of the bylaws suffices to represent this proof.

The Board of Directors may carry out any checks and controls it deems necessary.

The Board of Directors may also exercise any special powers granted it by law.

21.2.2.2. SENIOR MANAGEMENT

21.2.2.2.1. CHOICE BETWEEN TWO MANAGEMENT MODES

The management of the company is the responsibility of either the chairperson of the Board of Directors or another individual appointed by the Board of Directors and having the title of CEO.

By means of a majority vote of the directors present or represented, the Board of Directors chooses between the two management modes listed in the first paragraph of this section.

Shareholders and third parties are informed of this decision in accordance with legal and regulatory requirements.

The resulting choice by the Board of Directors remains in effect until the Board decides otherwise or, should the Board so decide, for the duration of the term of office of the CEO.

When the chairperson of the Board of Directors is responsible for the management of the company, the provisions pertaining to the CEO apply to him/her.

21.2.2.2.2. CEO

The CEO has the broadest possible powers to act in the company's name in all circumstances. He/she exercises his/her powers within the scope of the corporate purpose subject to those powers expressly reserved by law to the Shareholders' Meetings and the Board of Directors.

He/she represents the company in dealings with third parties. The company is bound even by acts of the CEO that are outside the corporate purpose, unless it is proven that the third party knew that the act was outside the corporate purpose or that such third party could not have been ignorant thereof given the circumstances, it being excluded that the mere publication of the bylaws suffices to represent this proof.

The CEO cannot be over 75 years of age. If the CEO reaches this age, he/she shall be deemed to have resigned. His/her term of office would nevertheless continue to the following meeting of the Board of Directors at which the new CEO would be appointed.

The Board of Directors can dismiss him/her at any time. If this decision is taken without due cause, the CEO may be entitled to damages unless he/she is appointed Chairperson of the Board of Directors.

In accordance with the provisions of Article 706-43 of the French Criminal Procedure Code, the CEO may validly delegate to any person of his/her choice the power to represent the company in criminal proceedings brought against it.

21.2.2.2.3. CHIEF OPERATING OFFICERS

At the behest of the CEO, the Board of Directors may appoint one or more individuals as Chief Operating Officers to assist the CEO.

In agreement with the CEO, the Board of Directors determines the scope and term of the powers granted to the Chief Operating Officers. The Board of Directors determines their remuneration. When a Chief Operating Officer is a director, the term of his/her role cannot exceed that of his/her position as director.

Vis-à-vis third parties, the Chief Operating Officers have the same powers as the CEO. Chief Operating Officers notably have the power to engage in legal proceedings.
There may not be more than five Chief Operating Officers.

The Chief Operating Officer(s) may be dismissed at any time by the Board of Directors, at the behest of the CEO. If the dismissal is decided without due cause, it may give rise to damages.

A Chief Operating Officer cannot be over 75 years of age. If a Chief Operating Officer reaches this age, he/she shall be deemed to have resigned. His/her term of office would nevertheless continue to the following meeting of the Board of Directors at which a new Chief Operating Officer may be appointed.

When the CEO ceases to or is prevented from exercising his/her duties, the Chief Operating Officer(s) retain, unless decided otherwise by the Board of Directors, their roles and powers until the appointment of the new CEO.

21.2.3. Rights, privileges and restrictions attached to the Company's shares

21.2.3.1. FORM OF SHARES

Shares are held in registered or in bearer form at the shareholder's discretion. They may not be converted to bearer form until they are completely paid up.
Shares and all other securities issued by the Company are registered in an account subject to the terms and conditions of applicable legal and regulatory provisions.

21.2.3.2. VOTING RIGHTS

Except where provided otherwise by law, each shareholder has the same number of voting rights and can exercise that number at Shareholders' Meetings as shares owned, provided that all payments due for such shares have been met. With the same nominal value, all shares give entitlement to one vote. Any mechanism automatically granting double voting rights to shares that have been registered in the same shareholder's name for at least two years is expressly rejected by these Bylaws.

21.2.3.3. RIGHTS TO DIVIDENDS AND PROFITS

Each share entitles its owner to a portion of the corporate assets, profits of the Company and the liquidation surplus proportionate to the percentage of the share capital that it represents.
At least five per cent (5%) of the Company's net income, reduced where relevant by any prior losses, must be allocated to the "legal reserve". The allocation is no longer required when the amount of the legal reserve reaches one-tenth of shareholders' equity.
Distributable income consists of the fiscal year's net income reduced by prior losses and the allocation described in the preceding paragraph, increased by income carried forward.

The Shareholders' Meeting records any distributable income in one or more reserves over which it controls the allocation and use, or decides to carry it forward, or to distribute it in the form of dividends.
If there are available reserves, the Shareholders' Meeting may decide on the distribution of amounts from such reserves. In this case, the decision will specify expressly the reserve entries from which these withdrawals will be made. However, dividends are to be drawn first from the fiscal year's distributable net income.
The Shareholders' Meeting or, failing this, the Board of Directors, decides the dividend payment methods.
However, the payment of dividends must occur within nine months following the close of the fiscal year.
The Shareholders' Meeting voting on the financial statements may grant to each shareholder, for all or part of the dividend distributed, a choice between payment of the dividend in cash or in shares.
Similarly, the Ordinary Shareholders' Meeting voting under the conditions described in Article L. 232-12 of the French Commercial Code, may make an interim dividend payment to each shareholder, and for all or part of said partial payment, may offer a choice between paying the interim dividend in cash or in shares.

The offer for payment in shares, the price and terms of issue of the shares as well as the request for payment in shares and the conditions for carrying out the capital increase will be governed by law and the regulations.

When a balance sheet that is prepared during or at the end of the fiscal year and that has been certified as compliant by the statutory auditor(s) shows that the company has earned a profit since the preceding reporting date, following recognition of the depreciation, amortization, and provisions necessary, and upon deducting, where applicable, prior losses as well as the amount to be put in reserves in application of the law or of these bylaws, the Board of Directors may decide to distribute interim dividends before the financial statements are approved, as well as to set the amount and date of distribution. The amount of these interim dividends may not exceed the amount of the profit defined in this paragraph. In this case, the Board of Directors may not use the option described in the paragraphs above.

21.2.3.4. PREFERENTIAL SUBSCRIPTION RIGHT

The Company's shares have a preferential subscription right to capital increases under the conditions specified by the French Commercial Code.

21.2.3.5. LIMITATION ON VOTING RIGHTS

There is no clause in the bylaws that restricts the voting rights attached to shares.

21.2.3.6. IDENTIFIABLE BEARER SHARES

In addition and subject to legal and regulatory conditions in effect, the Company may request at any time and at its own cost from any authorized entity, the name or the company name, if a legal person, the nationality and the address of the holders of shares that immediately or in the future confer a voting right at its Shareholders' Meetings, as well as the number of shares held by each of them and, if applicable, the restrictions to which these shares may be subject.

21.2.3.7. BUYBACK BY THE COMPANY OF TREASURY SHARES

See Section 21.1.3.

21.2.4. Terms for modification of the rights of shareholders

The rights of shareholders as they are set forth in the Company's bylaws may be modified only by an Extraordinary Shareholders' Meeting.

21.2.5. Shareholders' Meetings

21.2.5.1. HOLDING OF MEETINGS

Shareholders' Meetings are convened and held under the conditions established by law.

When the Company wishes to call a meeting by means of electronic telecommunication instead of by mail, it must obtain the prior approval of the shareholders concerned, who must provide their respective email address.

Meetings will be held at the headquarters or at any other location specified in the meeting notice.

The right to participate in meetings is regulated by the legal and regulatory provisions in effect and in particular is subject to shares being registered in the name of the shareholder or the intermediary registered on its behalf on the second (2nd) business day preceding the meeting at midnight, Paris time, either in the registered shares ledger held by the Company or for bearer share records held by an authorized intermediary.

Instead of personally attending the meeting, the shareholder may choose from among the following three options:

- Appointing a proxy in the manner permitted by law and regulation;
- Voting by mail, or
- Sending a proxy to the company without indicating instructions;

under the conditions provided for by the law and regulations.

The Board of Directors may organize, subject to the conditions specified by the law and regulations in effect, both the shareholder participation and the voting in the meetings by means of videoconference or by means of telecommunication that allow them to be identified. If the Board of Directors decides to exercise this right for any given meeting, it will so indicate in the meeting notice (*avis de réunion*) and/or the convocation notice (*avis de convocation*). Shareholders participating in the meetings by videoconference or by any other means of telecommunication described above, pursuant to the Board of Directors' choice, will be considered to be present for the calculation of the quorum and the majority.
Meetings are chaired by the chairperson of the Board of Directors or, in his/her absence, the CEO, a Chief Operating Officer if he/she is a director, or a director specially appointed to this end by the Board. Failing this, the Shareholders' Meeting elects its chairperson.

The duties of scrutineers are performed by the two members of the meeting who are present and accept these duties, and have the largest number of votes. The office names the secretary, who is not required to be a shareholder.

An attendance record will be maintained subject to the conditions specified by law.

The Ordinary Shareholders' Meeting on a first convocation may make valid decisions only if the shareholders present or represented own at least one fifth of the shares with voting rights. The Ordinary Shareholders' Meeting on a second convocation may make valid decisions regardless of the number of shareholders present or represented.

Decisions of the Ordinary Shareholders' Meeting are made by the majority of votes of shareholders present or represented.

The Extraordinary Shareholders' Meeting on a first convocation can only make valid decisions if the shareholders present or represented own at least a quarter of the shares with voting rights. The Extraordinary Shareholders' Meeting on a second convocation can only make valid decisions if the shareholders present or represented own at least one fifth of the shares with voting rights.

Decisions of the Extraordinary Shareholders' Meeting are made by a majority of two thirds of the shareholders present or represented.

Copies or extracts of the meeting minutes may be validly certified by the chairperson of the Board of Directors, or by a director carrying out the duties of CEO, or by the secretary of the meeting.

21.2.5.2. POWERS AT MEETINGS

Ordinary and Extraordinary Shareholders' Meetings exercise their respective powers subject to the conditions provided by law.

21.2.6. Provisions for the delay, deferral or prevention of a change of control

The Company's bylaws do not contain mechanisms allowing the delay, deferral or prevention of a change of control.

21.2.7. Exceeding Statutory Limits

Any individual or legal person acting alone or in concert, that comes to hold, in any manner whatsoever, within the meaning of Articles L. 233-7 et seq. of the French Commercial Code, directly or indirectly, a fraction equal to three per cent (3%) of the Company's share capital or voting rights, must notify the Company by providing the information specified in Article L. 233-7-I of the French

Commercial Code (in particular, the total number of shares and the voting rights that it owns) by registered mail with request for acknowledgment of receipt, or by any other equivalent means for persons residing outside of France, sent to the Company's headquarters within four trading days of the threshold being crossed.
This obligation also applies, subject to the conditions above, every time a further threshold of three percent (3%) of the company's capital or voting rights is reached or crossed, for whatever reason, including a crossing of a threshold above the statutory threshold of 5%.
Any shareholder whose ownership in the share capital or voting rights decreases below one of the thresholds described above is also required to inform the Company within the same period of four trading days, in the same manner as described above.
In the event of non-compliance with these provisions, at the request of one or more shareholders holding at least five percent (5%) of the company's share capital or voting rights, the shares exceeding the fraction which should have been declared are deprived of their voting rights in any Shareholders' Meetings held for two years from the date on which the notification is duly served.

21.2.8. Special provisions governing changes in the share capital

There is no special provision in the Company's bylaws that governs changes in its share capital.

22. MAJOR CONTRACTS

22.1. COOPERATION AGREEMENTS

Contract relating to the exploitation of Patent No. L09189 entered into by and between the Centre National de la Recherche Scientifique (CNRS), the Université Paris Diderot – Paris 7 and SuperSonic Imagine dated December 4, 2009.

The purpose of this contract is to formalize the conditions under which the parties may exploit a French patent application filed on February 21, 2007 by the Company in the names of SuperSonic Imagine and CNRS under number FR07 01235 and entitled "Procedure for optimizing the focusing of waves through an element that introduces aberrations", resulting from the works performed under a collaboration master agreement entered into by and between the Company, the CNRS and the Ecole Supérieur de Physique et de Chimie Industrielles de la Ville de Paris, on September 13, 2005, regarding scientific and technical cooperation between the parties in the field of medical and therapeutic imaging using focused ultrasound.

The exploitation agreement also covers the international patent application filed on February 20, 2008 under number WO2008/113940, together with corresponding patents in foreign countries, as well as any application for renewal of, extension of or a protection certificate resulting therefrom.

The Company owns fifty percent (50%) of the above-mentioned patents on which the agreement is based and the CNRS and the Université Paris Diderot – Paris 7 jointly own the remaining fifty percent (50%).

The contract became effective retroactively on February 21, 2007 and will remain in force for the valid term of the underlying patents; it may not therefore be terminated early except in the event of gross negligence by one of the parties, subject to the applicable law for this type of agreement. In addition, the agreement would be automatically terminated if one of the parties becomes the sole owner of the patents.

Under this agreement, the Company is granted (i) an exclusive and worldwide right, including the right to sub-license, to use or exploit the patents, and (ii) the right to manufacture and market, directly or indirectly, products using all or part of the patents, in the areas of ultrasonic imaging, multi-wave medical imaging where at least one wave is ultrasonic, and ultrasonic therapy.

As consideration, the Company undertakes to pay royalties on a proportional basis calculated as follows:

- Royalties on indirect exploitation: annual royalty calculated on revenue of any kind earned by the Company from the licenses granted to it;
- Royalties for direct exploitation:
- Annual royalties calculated on the net sales of the products sold by the Company which use all or part of the underlying patents and the patents sold by the CNRS to the Company under the patent transfer agreement No. L08186 entered into by and between the parties on September 11, 2008, until expiry of the last patent so sold; and
- Annual royalties calculated on the net sales of the products sold by the Company by using all or part of the licensed patents and until the termination of the last patent licensed.

In addition, these annual royalties are accompanied by the payment of a guaranteed minimum annual fee.

Outside of the areas described above, the CNRS and the Université Paris Diderot – Paris 7 have an exclusive right, including the right to sub-license, to use and to exploit the patents. In the event of indirect exploitation, the CNRS and the Université Paris Diderot – Paris 7 owe the Company a proportional royalty on all types of revenues received from their licenses.

This agreement is governed by French law and the jurisdiction of the French courts.

Licensing agreement between Société d'Elastographie Impulsionnelle pour les Systèmes de Mesures de l'Elasticité (SEISME) and SuperSonic Imagine dated July 20, 2011

Under this licensing agreement, SEISME grants the Company a license (non-exclusive since 2013) on a French patent and an international patent application in imaging using elastography by shear waves to manufacture, have manufactured, market and have marketed any device or product integrating all or part of the licensed technologies in the specific area employing path formation in ultrafast imagery.
This license, which is valid in all countries where said patents are filed, is limited in several ways. The license is first limited to the following area of application:

- Products and processes using shear waves according to any mode of imaging employing path formation in ultrafast imaging;
- Products and processes using shear waves according to any method of imaging employing path formation in ultrafast imaging in the sector of cardiovascular imaging excluding the 1D imaging mode, since January 1, 2013.

Under this agreement, the Company is granted the right to sub-license its rights to third parties.

Since 2013, the Company is required to pay a royalty, which is calculated on the net sale price of products implementing all or part of the licensed patents, noting that this royalty will be decreased whenever the total amount of annual royalties is greater than €10,000. In the event that one or another of the patents included under the license agreement is declared null, the contract expressly provides that the royalties that are then due will remain acquired by SEISME.

The contract, which came into effect on July 20, 2011, will expire at the end of the effective term of the last of the patents concerning it, or in March 2020. Each of the parties may terminate the contract in case of a breach by the other party of contractual obligations which have not ended within the 60 days following notice.

The Company takes on its own the entire responsibility regarding the exploitation of the licensed patents. SEISME cannot be held liable for damages resulting from such exploitation nor for indirect damages or financial losses caused by this exploitation.

This agreement is governed by French law and the jurisdiction of the French courts.

Licensing agreement between the Company and a major industrial player dated March 3, 2014
On March 3, 2014, the Company entered into a licensing agreement with a major industrial player (the "Industrial Player") pursuant to which the Company grants the Industrial Player a worldwide non-exclusive and non-transferable right to use that may not be sub-licensed for four key patents in the field of shear wave elastography. In consideration for payments to the Company, this licensing agreement authorizes the Industrial Player to manufacture and market products that implement the licensed patents, according to a time-phased schedule established by mutual agreement between the parties.

The Company and the Industrial Player also mutually waive, until November 30, 2023, the enforcement of the patents in the field of ultrasound medical imaging that they own or for which they hold a license as of June 1, 2013.

The contract is concluded on a personal basis and no party may assign its contractual rights or obligations without the prior written consent of the other party, with the understanding, however, that, as an exception and under certain conditions, the Company may transfer its rights and obligations to the first person or entity to acquire its assets or shares upon a change of control.
This contract is subject to the laws of New York State, and any dispute relating to it is to be submitted to prior mediation, then to an arbitration tribunal or a court of the State of New York.

Patent licensing agreement between the Company and a major industrial player dated December 23, 2014
On December 23, 2014, the Company entered into a licensing agreement with a major industrial player (the "**Industrial Player**") concerning almost all of its imaging patents portfolio, pursuant to which the Company was granted a worldwide non-exclusive and non-transferable license that may not be sub-licensed (except to the Company's subsidiaries, under certain conditions).
In consideration for the granting of this license to the Company the latter is required to pay the Industrial Player royalties, the amount of which takes into account the net price from sales of products covered by the license (see Note 34.1 to the Consolidated Financial Statements presented in Section 20.1 of this document).

This license was entered into for an initial period beginning (retroactively) on January 1, 2014 and ending on December 31, 2016. It was then subject to tacit renewal for successive periods of one year each. This agreement was terminated on May 3, 2017 to be replaced, on similar terms, by a new cross-licensing agreement between almost all of the two companies' patent portfolios. This agreement terminates on March 31, 2029. Thereafter it is subject to tacit renewal for successive periods of one year each.

The contract may likewise be terminated (i) by the Industrial Player in the event that the Company disputes the validity of the patents covered by the license and/or (ii) at the end of the initial period, by each of the parties, respecting the period of 30 days' prior notice before the anniversary date of the next renewal.

22.2. MASTER AGREEMENT RELATING TO PRODUCTION

Contract for professional services signed with Plexus Corp. on November 1, 2013.
The Company signed a contract with Plexus Corp. (a U.S. company) pursuant to which Plexus Corp. provides the Company with the assembly and testing of the Aixplorer® system and provides it with related services.

Through the expiration date of the contract, the Company undertakes to exclusively use Plexus Corp. for any manufacture it envisages concerning the assembly of the Aixplorer® system, as well as any testing.

The parties have had a contractual relationship since June 2007; the contract signed on November 1, 2013 will expire on May 13, 2016. This contract is automatically renewable each year, for a one-year term. Each party may terminate the contract at its discretion by giving prior notice of 270 days or, in the event there is a serious breach of the obligations under the contract which is not resolved within 45 days following notice. Termination is likewise permitted in cases of insolvency or insolvency proceedings of the other party.

Plexus Corp. also offers the Company guarantees of compliance and of the absence of any defects concerning the assembly and testing of the Aixplorer® system, save for when a design flaw, fault or delay is attributable to the Company.

The contract may only be transferred to a third party if there is a prior agreement from the co-contracting party, unless there is any kind of merger or restructuring. The contract is subject to the laws of New York State and provides for a prior mediation clause which must take place in Milwaukee, Wisconsin, without the competent jurisdiction being more fully specified.

22.3. MASTER AGREEMENT RELATING TO DISTRIBUTION

Distribution agreement with a major distributor in the U.S. for gastrointestinal diagnostic solutions dated March 14, 2016, renewable on March 14, 2019.

SuperSonic Imagine signed an agreement with Sandhill Scientific, Inc. for the distribution throughout the United States of its sonography technology with ShearWave™ Elastography (SWE™) in real time for assessment of liver diseases. Since March 14, 2016, Sandhill Scientific had been the exclusive distributor for the Aixplorer® ultrasound system to gastroenterologists and hepatologists. Sales in the breast sector are now directly managed by the Group's sales force.

This distribution agreement was terminated by mutual consent at the end of 2017. Sales in the liver sector are now directly managed by the Group's sales force.

As of the date of this report, there are no other major distribution agreements over the previous two years, other than contracts within the ordinary course of business.
In accordance with the AMF's recommendations, this paragraph details the major contracts over the previous two years.

22.4. VENTURE LOAN WITH NORGINE B.V.

The €5 million issue in 2013 was redeemed in March 2017.

Characteristics of Warrants (BSA)
Number: a warrant is attached to each bond (i.e. 50,000 warrants).
Exercise ratio: each warrant entitles its bearer to subscribe for a share with a unit price of €10.

Exercise period: Due to the Company's IPO in April 2014, these warrants became exercisable through December 17, 2023.
See Note 18.2 to the Consolidated Financial Statements presented in Section 20.1 of this document.

22.5. VENTURE LOAN WITH KREOS CAPITAL V (UK) LIMITED

The Company arranged two Venture Loans with Kreos in March 2017 and December 2018.

The first Venture Loan in March 2017, for a total of €12 million, consists of two tranches of bonds with share warrants (OBSA) for €6 million each. These were subscribed for on March 13 and December 22, 2017 by Kreos Capital V (UK) Limited and helped finance the commercial development of SuperSonic Imagine and pay down some existing debts. The loan's terms and conditions are as follows:

- The loan is for a period of 42 months and bears interest at an annual rate of 10.75%;
- The first tranche of 6,000,000 bonds with share warrants was issued with preferential subscription rights being waived in favor of Kreos pursuant to the authorization granted to the Management Board under resolution 14 of the Combined Shareholders' Meeting of June 24, 2016;
- The second tranche of 6,000,000 bonds with share warrants was issued in December 2017 at the request of the Management Board;
- The warrants issued in respect of this loan were waived by Kreos on December 13, 2018.

The second Venture Loan in December 2018 totaled €12 million and consists of two tranches of €6 million each, composed of €4.8 million in plain vanilla bonds and €1.2 million in bonds convertible into shares with share warrants (OCABSA). At the time of writing, only the first €6 million tranche had been subscribed for, by Kreos on December 13, 2018. The loan's terms and conditions are as follows:

- each tranche is subscribed for at the annual interest rate of 10.75% for a period of 42 months for the first tranche and 36 months for the second;
- repayments are monthly after a deferral period of 6 months for the first tranche;
- the first tranche consists of 4,800,000 plain vanilla bonds, subscribed for by Kreos Capital V (UK) Ltd, and 1,200,000 OCABSA, issued with preferential subscription rights being waived in favor of Kreos Capital V (Expert Fund) L.P. pursuant to the authorization granted to the Board of Directors under resolutions 26 and 28 of the Combined Shareholders' Meeting of May 28, 2018;
- the second tranche will be issued no later than September 30, 2019 at the request of Supersonic Imagine and subject in particular to the authorization of the Board of Directors and the fulfillment of certain conditions;
- convertible bonds can be converted into Supersonic Imagine shares at any time, upon request from Kreos, at a price equal to the volume-weighted average price per share during the 30-day trading period ending 10 days prior to the drawdown of the first tranche of convertible bonds (moving volume-weighted average price – **MVWAP**). This price may be adjusted downwards in the event of a capital increase at a lower price, subject to the volume-weighted average price per share during the 3 days prior to the issuance of the convertible bonds,

discounted by 5% (discounted volume-weighted average price – **DVWAP**). The number of shares that can be subscribed for in the event of conversion of the two convertible bond tranches (amounting to €2.4 million) will be capped at 1,940,491 shares (970,246 shares for the first tranche issued for €6 million and 970,245 shares for the second tranche, not yet issued). This equates to approximately 7.65% of the share capital on an undiluted basis. For example, assuming a conversion price per share of €1.5811 (i.e. 100% of the MVWAP as of December 13, 2018), a shareholder who holds 1% of the share capital prior to the issue would end up holding around 0.968% of the share capital following the conversion of all the convertible bonds in the first tranche and 0.939% of the share capital following the conversion of all the convertible bonds in the first and second tranches.

- warrants can be exercised at any time, upon request from Kreos, at a price equivalent to the MVWAP. This price will be adjusted downwards in the event of a capital increase at a lower price, subject to the DVWAP. The number of shares that can be subscribed for if the two tranches of warrants are exercised (amounting to €2.64 million) will be capped at 2,134,540 shares (1,600,906 shares for the first tranche of warrants issued for €6 million and 533,634 shares for the second tranche, not yet issued). This equates to approximately 8.35% of the share capital on an undiluted basis. For example, assuming an exercise price per share of €1.5811 (i.e. 100% of the MVWAP as of December 13, 2018), a shareholder who holds 1% of the share capital prior to the issue would end up holding around 0.949% of the share capital following the exercise of all warrants in the first tranche and 0.933% of the share capital following the exercise of all warrants in the first and second tranches.
- A representative of Kreos is entitled to attend meetings of the Board of Directors of SuperSonic Imagine as a non-voting member (*censeur*).

In order to guarantee all of the Company's obligations under the two Venture Loan agreements, it provided a number of securities: pledge of bank accounts, pledge of receivables, pledge of inventories (only for the December 2018 Venture Loan) and pledge of some intellectual property rights (see Sections 11.2.2 and 11.3.1 for the details of these pledges).

With regard to the pledge of receivables, the Company undertook to pledge all receivables owed by French third parties in the normal course of the Company's business. The research tax credit is not affected by this pledge.

23. INFORMATION PROVIDED BY THIRD PARTIES, STATEMENTS OF EXPERTS AND STATEMENTS OF INTEREST

23.1. APPOINTMENT OF EXPERTS

None.

23.2. DESIGNATION OF THIRD PARTIES

None.

24. DOCUMENTS ACCESSIBLE TO THE PUBLIC

Copies of this Registration Document are available free of charge at the Company's headquarters, Les Jardins de la Duranne – Bât E & F, 510 rue René Descartes, Aix-en-Provence, France. This document may also be viewed on the Company's website (www.supersonicimagine.fr) and on the website of the French Financial Markets Authority (www.amf-france.org).

The bylaws, minutes of the Shareholders' Meetings and other Company documents, as well as historical financial information and all evaluations or statements prepared by an expert at the Company's request, are available to shareholders in accordance with applicable legislation, and may be consulted, free of charge, at the Company's headquarters.

Ever since the Company's shares have been admitted to trading on the Paris Euronext regulated market, regulatory information as defined by the provisions of the AMF's General Regulation has also been available on the Company's website (www.supersonicimagine.com).

25. INFORMATION ON EQUITY INVESTMENTS

Information regarding companies in which the Company holds a portion of capital that may have a significant impact on the value of its assets, its financial position or its results appears in Chapters 7 “Organizational Chart” and 20 “Financial Information” of this document.

26. GLOSSARY

Biopsy: a mechanism whereby a sample is taken from the body for the purposes of examination under a microscope.

Mucinous carcinoma: mucinous mammary carcinomas are a rare form of breast cancer, the cells of which secrete mucus.

Coronal incision: incision which is perpendicular to a horizontal or transverse incision.

Cytology: examination under the microscope of a small number of cells, which have been harvested by puncture with a fine needle or by taking blood and which are stained and spread out onto a slide.

Doppler: use of ultrasonic waves to measure the speed or velocity of blood flow in blood vessels.

Color Doppler: color Doppler displays the result of echocardiographic shots over a large area of interest in 2D. Color Doppler is used to locate in space the flow within a region of interest.

Pulsed Doppler: pulsed Doppler enables the flow located by color Doppler within the region of interest to be quantified.

Stiffness: see Elasticity.

Sonography: use of ultrasonic waves to measure the speed or velocity of blood flow in blood vessels.

Elasticity (or stiffness): elasticity is the property of a body, organ or tissue of being able to stretch itself and then return to its original shape and size. The elasticity of human tissues varies. However, this variability is particularly significant as a reflection of the pathological condition of tissues.

Elastography: term for imaging techniques concerning tissue elasticity. The main objectives of elastography are to refine diagnosis and to improve the specificity of an ultrasound scan.

ShearWave™ Elastography: a new type of ultrasound imaging created by SuperSonic Imagine, which displays maps of elasticity (kPa) in real time. ShearWave™ Elastography is the first to use shear waves in sonography and is the only method able to provide a local and quantitative measure of tissue elasticity in real time.

Multicenter clinical trials: a clinical trial which takes place simultaneously in several different locations.

FDA: the Food and Drug Administration is a U.S. government agency primarily responsible for controlling and regulating drugs prior to market release.

Goiter: increase, often visible, in the volume of the thyroid gland.

UltraFast™ imaging: a technological breakthrough patented by SuperSonic Imagine, which enables the Aixplorer® ultrasound system to acquire data at a speed of up to 20,000 Hz, which is around 200 times faster than with a traditional ultrasound system.

Acoustic impedance: resistance of an environment to the passage of sound.

ICC index: The "Intraclass Coefficient Correlation" is defined as the proportion of total variability due to inter-subject variability. It is traditionally used to estimate the reproducibility of a measuring instrument.

Insonify: to use a method enabling the recovery of raw data collected by an acoustic signal, which accurately reflects the subject surveyed, without processing.

Invasive: capable of creating lesions in the body. A non-invasive examination is a medical examination that does not require any penetration of the skin other than to obtain a blood sample or to inject a product.

MRI (Magnetic Resonance Imaging): images in sections in different planes, based on the magnetic properties of tissues, which enables the structure being analyzed to be reconstructed in three dimensions.

Pascals (or kiloPascals): unit of pressure, which allows for measurement of elasticity (stiffness) of human tissue by means of elastography.

Lesions: an anatomical and histological (study of cells) change in the tissues of an organ.

Malignancy: nature of a dangerous tumor.

Palpable masses: presence of a hard mass located within an organ, which can be felt by touch and which is possibly related to the existence of an abnormality. Examinations such as mammography, sonography, MRI or even biopsy are necessary to obtain a diagnosis.

Nodules: abnormal, rounded formation, which can be felt in or under the skin, benign or malignant. Some nodules can be cancerous tumors.

Shear waves: shear waves are slow waves which cause a sliding (or pinching together) of tissue layers relative to each other. Like palpation (which consists of shearing or pinching tissues), they are directly related to tissue stiffness. The shear waves used for the first time by SuperSonic Imagine's Aixplorer® are a source of valuable information, because measurement of their velocity enables tissue stiffness to be determined.

Parenchyma: all the cells which make up the functional tissue of an organ.

PCT (Patent cooperation treaty): international patent application procedure.

Pelvic: concerning the pelvis.

PSA: Prostate-Specific Antigen, a protein produced exclusively by the prostate.

Radiography: X-ray imaging technique which allows an organ or body part to be viewed on a photosensitive film.

Reproducibility: ShearWave^{TM} Ultrasound Elastography measures tissue elasticity and provides quantifiable data in real time, which can be directly interpreted by the user regardless of his or her level of experience. The results can be repeated as many times as required and enable effective

monitoring of a patient. They do not depend on how the examination was performed, as is the case with traditional ultrasound imaging.

Scintigraphy: scintigraphy is emission imaging (namely, the radiation comes from the patient after injection of the tracer) as opposed to radiographic imaging, which is transmission imaging (the beam is external and goes through the patient).

Sensitivity: capability to detect something abnormal.

Specificity: capability to characterize the identified data.

Computed Tomography: medical imaging technique, in which the absorption of x-rays by tissues is measured, and then digitized by computer processing, and finally reconstructed into 2D or 3D images of anatomical structures.

Fast Fourier Transformation: Fourier transformation consists of decomposing an arbitrary periodic signal into a sum of sinusoidal signals of different amplitudes and phase shifts. Fast Fourier transformation (FFT) is a simplified mathematical procedure, which enables this transformation to be performed rapidly in certain conditions.

Positive predictive value: the probability that the condition is present when the test is positive.

27. CORRESPONDENCE TABLES

This Registration Document contains the information required by the annual financial report and the management report.

27.1. MANAGEMENT REPORT CONCORDANCE TABLE

For this document, the concordance table below identifies the information included in the annual financial report referred to in Article L. 451-1-2 of the French Monetary and Financial Code and Article 222-3 of the AMF's General Regulations.

Information contained in the management report	Location
Key events of the period	Section 6.1, Chapter 9 and Section 20.1, note 1.2
Major events after the balance sheet date	Section 12.1, Section 20.1, note 37
Anticipated developments	Sections 12.2 and 12.3
Data changes	Section 9.1 and 9.2
Corporate Governance Report	Section 16.4
Societal and Environmental Report	Section 8.2 and 8.3
Compensation and manager interest in capital	Chapter 15
Corporate governance, functions and terms of office	Chapter 14 and Chapter 16
Market and competition	Section 6.4
Operating resources	Chapter 8
R&D, investment policy and products	Chapter 11, Section 5.2, Section 6.5, Section 9.2.1.4
Subsidiaries	Chapter 7
Risk factors	Chapter 4
Insurance	Section 4.6
Non-deductible expenses	Section 20.4
Information of a general nature concerning capital	Chapter 18 and Chapter 21
Employee incentives	Section 17.5
Earnings during the past 5 years	Section 20.4
Dividend distribution policy	Section 20.7
Treasury stock	Section 21.1.3
Information on supplier payment times	Section 20.4
Regulated-party agreements	Chapter 19
Summary of delegations of authority in effect	Section 21.1.5
Employee participation in capital	Section 17.4
Bylaws	Section 21.2

27.2. ANNUAL FINANCIAL REPORT CONCORDANCE TABLE

The purpose of the concordance table below for this document is to identify the information included in the annual financial report referred to in Article L. 451-1-2 of the French Monetary and Financial Code and Article 222-3 of the AMF's General Regulations.

Information in the "transparency directive" annual financial report	Location
Annual Financial Statements	Section 20.3
Consolidated Financial Statements	Section 20.1
Management report	Section 27.1
Statement by the person responsible	Section 1.2
Report by the Statutory Auditors on the SuperSonic Imagine SA Annual Financial Statements	Section 20.4.2
Statutory Auditors' Report on the Consolidated Financial Statements	Section 20.4.1
Statutory Auditors' fees	Section 20.10
Corporate Governance Report	Section 16.4
Special report by the Statutory Auditors on the related-party agreements	Section 19.3