



X FAB

MIXED-SIGNAL FOUNDRY EXPERTS

Annual Report 2019
X-FAB Silicon Foundries SE

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DEAR STAKEHOLDERS,



2019 was a challenging year. After the semiconductor industry had enjoyed a strong and long-lasting upward cycle, a mix of economic factors and political conflicts in the world led to a high level of uncertainty in the market, triggering inventory corrections along the supply chain. This also had an impact on our business. In 2019, revenues of the X-FAB group came in at USD 506.4 million, down 14% compared to the previous year. The decline was mainly caused by a drop in automotive production revenues as well as in the consumer, communications and computer business (CCC).

On the other hand, we continued to see strong prototyping activities throughout the year recording revenues of USD 66.7 million, which is an increase of 14% compared to the previous year. Our prototyping revenues are an indicator for future business with each prototype representing a new contract adding up to the pipeline of projects driving future growth.

Revenues in X-FAB's key end markets – automotive, industrial, and medical – totaled USD 364.0 million, down 10% year on year. Our automotive business fell by 14%, entirely driven by the decline in production revenues. Automotive prototyping revenues recorded a growth of 4% year on year. Industrial revenues in 2019 went down by 4% caused by an 8% decline in production revenues, while prototyping revenues went up 6%. In 2019, X-FAB's medical business grew strongly by 17% with prototyping revenues going up by 28% and production revenues by 13%.

X-FAB provides technologies helping to address today's challenges, such as the need for greener energy to respond to the climate change or smart medical solutions in light of growing populations and aging societies. I am proud of our technological capabilities that enable our cus-

tomers to develop smart solutions in many areas that will become increasingly important, while at the same time providing great potential in terms of X-FAB's future growth.

In 2019, we continued to make good progress with our silicon carbide (SiC) offering, which enables us to support the electrification of cars but also the transition to greener energy in other areas. As at the year end, our site in Lubbock, Texas, counted 20 SiC customers and recorded SiC revenues of 23.2 million, up 104% year on year. A major share of our SiC business goes into the industrial market for different applications, such as power conversion for photovoltaic systems and windmills, inverters for electric trains, or inverters for uninterruptible power supply systems. The main application for the automotive market will be inverters for electric cars, which is underway. We already supply SiC power electronics for on-board charging as well as charging stations.

We also moved forward with the preparations for offering in-house SiC epitaxy. The line successfully started to build customer samples, which have produced very good results. Internal qualification is scheduled to be completed in the first quarter 2020, which is the final milestone to kick off volume production. Epitaxy refers to the process of depositing a thin epitaxial layer on a SiC raw wafer, which is a significant value-add step in the overall process of manufacturing silicon carbide semiconductors.

Our SiC business is an important growth driver for X-FAB and, along with our high-voltage CMOS offering and the galvanic high-voltage isolation capability, we will not only support but also benefit from the electrification of cars.

"Medical is the next automotive." In fact, the technological advancements in the medical sector are fantastic and, just like in the automotive industry 25 years ago, the number of medical applications requiring semiconductor content keeps growing. We are well positioned to benefit from this growth, and I expect the share of X-FAB's medical revenues to increase significantly over the next years. We produce ICs that go into a variety of personal medical devices, such as pacemakers or hearing aids, and into medical equipment, such as ultrasound or x-ray.

The third group of applications is the lab-on-a-chip applications, which are particularly exciting and growing strongly. A lab-on-a-chip device integrates one or several laboratory functions on an integrated circuit, enabling highly automated, high-throughput analyses. These devices are being designed to do, for example, DNA sequencing, cancer cell sorting, allergy testing, or sepsis detection – accurately and fast.

In response to the growing importance of China as an economic region, we have made efforts to further increase awareness for X-FAB's offering in the Chinese market. During a China roadshow organized in July 2019 we counted close to 200 attendees from more than 100 companies. In December, a technical seminar held in Shenzhen on X-FAB's automotive grade processes attracted 120 people on only one day. This high level of interest is reflected in the fact that prototyping revenues from Chinese customers doubled over a period of two years, indicating future growth of X-FAB's business in this market. In China, we see a rising demand in particular for our SOI technologies, for our high-voltage SOI for applications serving increasing electrification, and also for our RF SOI technology supporting the transition to 5G, the latest mobile radio standard.

We are a company with a high share of fixed costs, so the decline in production demand and the resulting drop in our factories' utilization levels heavily impacted profitability. In early 2019, X-FAB therefore launched a cost-saving program comprising several measures to lower costs related to staff, travel, electricity, and raw materials, which has been yielding savings throughout the year. At the same time, our manufacturing sites continued their capacity expansion and optimization projects tailored to increase output and productivity, thereby taking advantage of the lower utilization levels. While some of the improvements will have an effect only at higher utilization levels, X-FAB Sarawak in Malaysia managed to expand its available capacity to 30,000 wafer starts per month, bringing the Group's total capacity up to 100,000 wafer starts per month (8-inch equivalents).

In the last couple of months, we have started to see signs of a recovery. Bookings have been trending up and the order behavior of our customers, who had been very cautious, have begun to change. We have seen not only an increase in new orders but also more and more customers requesting fast deliveries, which is pointing towards low inventory levels in the supply chain. We are confident that X-FAB is well positioned for future growth based on the technologies we offer and the markets we serve.

After the close of 2019, there is of course one event that has been requiring a lot of our attention: COVID-19. The topic was discussed at length during the meeting of the Board of Directors of March 20, 2020. The following statement summarizes the main messages from that meeting.

Our main focus lies with the health and wellbeing of our people. We are following up on the events closely and taking action immediately in accordance with the recommendations of the relevant authorities. We have taken precautions to prevent further spread of infections and are informing our employees on a continuous basis. The continuity of production is our second point of focus. We have implemented business continuity measures and confirm that the factories continue to operate.

The financial impact of COVID-19 is at this point in time impossible to predict. For now, bookings remain stable and there are no adjustments necessary yet to the Company's revenue forecast. Visibility going forward is, however, very low. Therefore we cannot exclude the possibility that our forecast will have to be adjusted as the events progress, either because of a slowdown of the global economy leading to a drop in demand, because of issues on the supply side or because of an impact on X-FAB's daily operations due to an increased sickness-rate.

I would like to conclude by thanking all X-FAB employees for their continued commitment, and our customers, investors, and business partners for the trust they have placed in us.

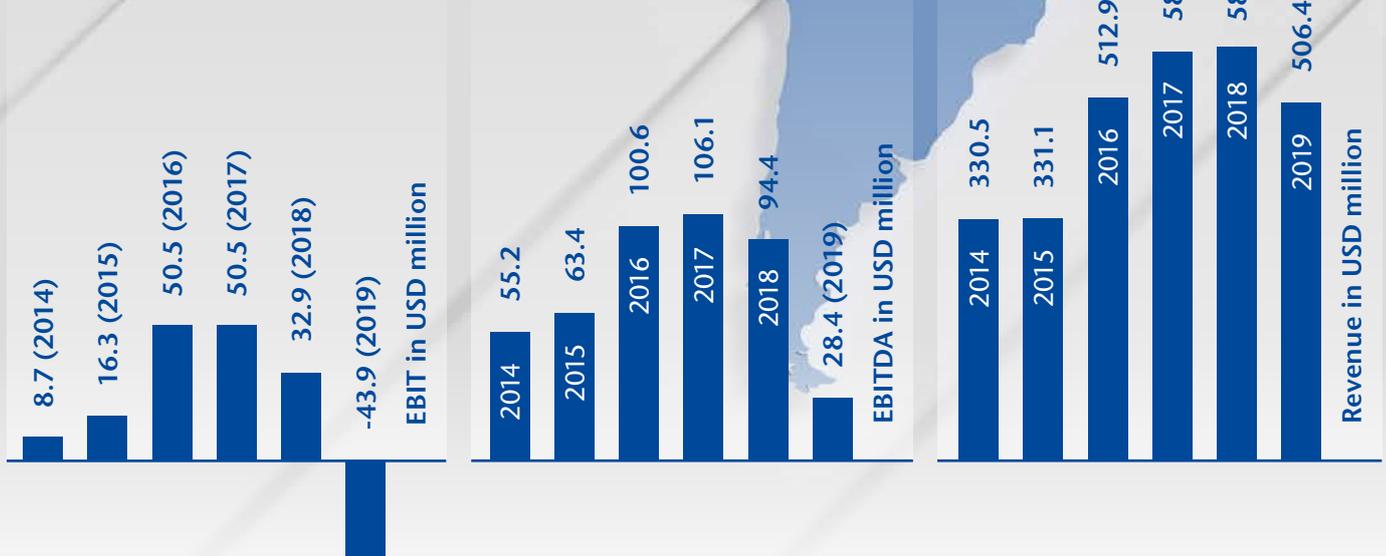
Best regards,
Rudi De Winter
CEO

X-FAB AT A GLANCE

Specialty foundry for analog/mixed-signal semiconductor technologies with strategic focus on automotive, industrial, and medical markets



KEY FINANCIALS 2014 – 2019





3. OUR CULTURE

Diversity at X-FAB

Since its inception in 1992, X-FAB has grown to become a global company with a strong presence in Europe, North America, and Asia with approximately 3,900 employees spread all over the globe. At X-FAB, you will find an international and diverse working environment. Our employees represent about 45 nationalities and have varied cultural backgrounds. This makes working at X-FAB an inspiring experience – across borders and cultures. Nonetheless, we are well aware that our customers expect excellent products and services independent from nationalities and locations. It is therefore essential to enable our employees – no matter where they are located or come from – to collaborate successfully.

What are we striving for?

OUR VISION

To be the foundry of choice for the analog world

OUR MISSION

We are fully engaged to be the foundry of choice for the analog world by focusing on innovative solutions and manufacturing excellence

that meet customer expectations, enabling long-lasting success for all our stakeholders.

Guiding us to success

Strong values build the basis for the success of X-FAB, the way we work together, and how we interact with each other and with our stakeholders.

To make tangible what it means to be a customer-oriented company and how our values can guide us to success, X-FAB launched its Group-wide Vision & Values program, a workshop-based concept to introduce all employees and teams to the idea of leadership: leadership as a person spurred by the values of integrity & respect, and leadership as a team spurred by the values of teamwork, commitment, and innovation – all together leading to customer orientation.

Members of X-FAB staff are trained to facilitate the Company's Vision & Values workshops as so-called Values Promoters. As at year end 2019 and since the start of the Vision & Values initiative, the Values Promoters have facilitated more than 500 workshops worldwide, resulting in manifold initiatives and concrete actions.



Fig. 3.1: The X-FAB values

“

Both new and experienced members from different teams were able to get to know each other better and we have seen a tremendous improvement in performance, communication, and teamwork.

“

The biggest advantage is that, during the workshop, the teams can focus and work on common goals in a very short time. In this way we achieve better cooperation and communication between the departments.

“

My conclusion from the workshop is that teamwork solves problems and is especially fun when you can trust the colleagues you work with. I see more trust between colleagues and the discussions are more mature.

Managers' feedback after Vision & Values workshops on cross-functional leadership conducted in 2019

There is no second chance for a first impression

Communication in all its forms is key for successful collaboration with customers. X-FAB therefore launched a Customer Communication Training program tailored to improve the communications skills of all staff members who interact closely with our customers.

The four-day program shows how customer service can go from good to great and the dos and don'ts in customer communication using real-life examples. It raises awareness of the perspective of the customer as well as of cultural differences. Finally, it provides useful training in English as a foreign language to master e-mail and telephone conversations.

As at year end 2019, 211 people have been trained with great success, and the Customer Communication Training will continue to be a vital part of X-FAB's journey in becoming a customer-oriented company.



Fig. 3.2: Teambuilding activity during a Vision & Values event in Kuching



WE THINK AUTOMOTIVE

X-FAB technologies for our future.

4. OUR BUSINESS

The specialty foundry business model

X-FAB is one of the world’s leading specialty foundry groups for analog/mixed-signal semiconductor technologies with a clear focus on automotive, industrial, and medical applications. As a specialty foundry, X-FAB provides manufacturing and strong design support services to its customers that design analog/mixed-signal integrated circuits (ICs) and other semiconductor devices for use in their own products or the products of their customers.

As a **pure-play foundry** X-FAB does not have its own IC products, but manufactures them based on designs created by its customers or third parties in cooperation and mostly based on X-FAB’s portfolio of modular, highly specialized proprietary process technologies and IP. The trend to further capture and evaluate measured values in the real world generates growing need for specialty foundry services.

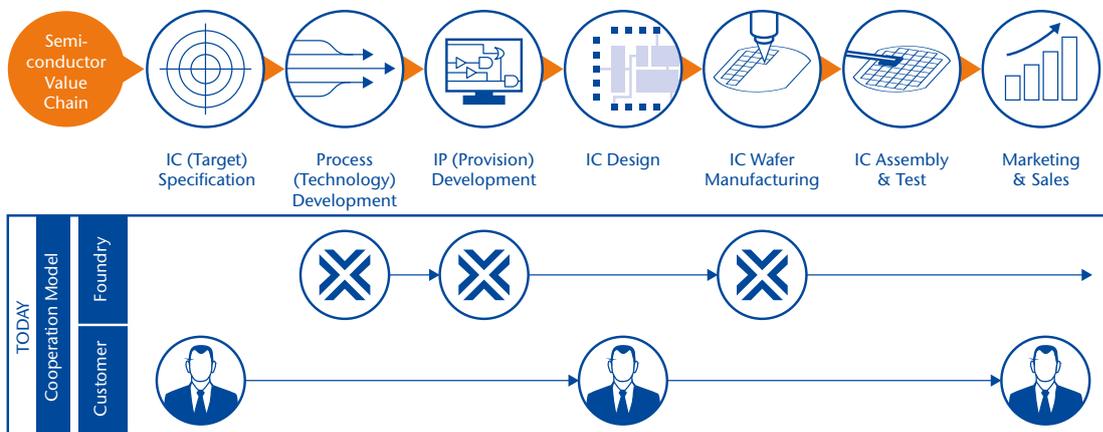


Fig. 4.1: The semiconductor value chain and the cooperation model

The X-FAB group has an established track record with over **25 years of experience** providing proprietary manufacturing processes and advanced design and engineering support offerings. Excellent service, reliability and first-class technical support – that’s what X-FAB stands for.

Manufacturing excellence



X-FAB manufactures analog/mixed-signal ICs utilizing proprietary process technologies.

A modular approach allows customers to choose from a wide range of enhanced options across many semiconductor technologies, designs, and processes, including **complementary metal-oxide semiconductor (CMOS)**, **silicon on insulator (SOI)**, **silicon carbide (SiC)** and **micro-electro-mechanical systems (MEMS)**. Customers can draw on a variety of features in order to develop ICs specifically tailored to their end-use requirements and to optimize product performance, product size, power consumption, and other parameters. Currently the foundry offers process technologies with feature sizes of 1.0µm, 0.8µm, and 0.6µm on 150mm wafers and 0.6µm, 0.35µm, 0.25µm, 0.18µm, and 0.13µm on 200 mm wafers.

X-FAB group operates six wafer manufacturing sites in Germany, France, Malaysia, and the United States, with aggregate production capacity of approximately 100,000 200 mm equivalent wafer starts per month (WSPM).

CMOS and SOI: X-FAB's open-platform technologies

The vast majority of X-FAB's technologies are based on CMOS, with SOI being a specialty variant offering a so-called SOI layer for better technical performance within certain electri-

cal parameters. These processes are available for all customers and include performance-optimized primitive analog devices such as low-noise transistors, high-voltage transistors (up to 700-volt breakdown voltage), or integrated sensor elements such as optical sensor diodes.

X-FAB's DNA: Analog/mixed-signal ICs

X-FAB produces microchips and other semiconductor devices. These microchips and devices prepare **real-world signals from the analog world** (sensory data such as sound, light, pressure, motion, temperature, etc.) for subsequent digital processing or converting digital values into analog signals. Mixed-signal circuits (also referred to as "analog/mixed-signal ICs") embed both digital and analog circuitry onto a single IC. With more and more electronic devices interfacing with the "real world" (such as through the Internet of Things, IoT), the demand for such devices is growing continually, making mixed-signal semiconductor ICs an increasingly important part of the market for electronic equipment.

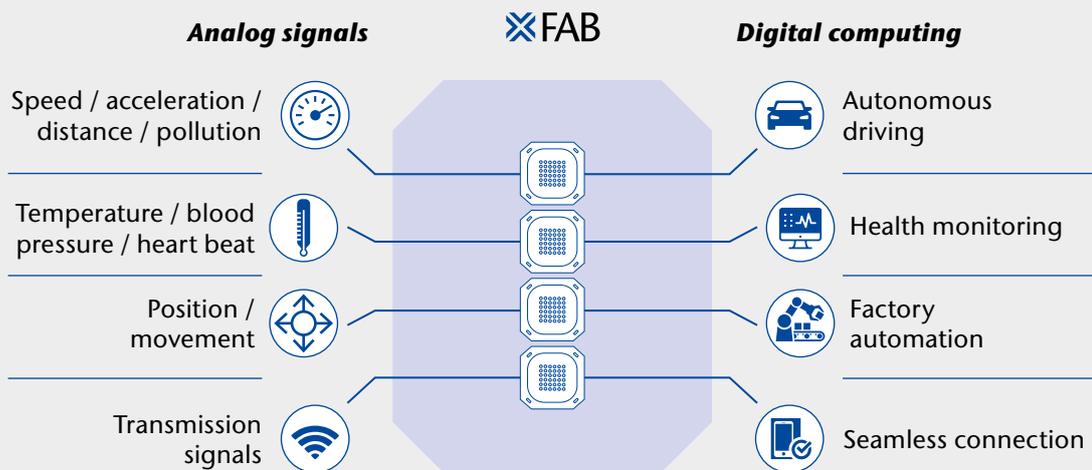


Fig. 4.2: X-FAB connects the real world with the digital world by enabling smart applications

The number of analog (including analog/mixed-signal) semiconductors produced annually has grown from approximately 77 billion units in 2008 (McClellan Report 2011, Figure 5-1) to approximately 164 billion units in 2019, according to the 2020 McClellan Report (Figure 5-4). After a growth in sales of this market by 10% from 2017 to 2018, it grew by a CAGR of 1% between 2017 and 2019 (Fig. 5-4) and is expected to grow at a CAGR of 7.2% between 2019 and 2024 (Fig. 5-3).

Even though those **open-platform technologies** typically address **multiple applications** and sometimes more than one market, most of them are qualified for automotive use and support high temperatures up to 175°C. In 2019, revenues based on X-FAB's CMOS technologies amounted to USD 445.1 million.

The Group owns all its technologies and the corresponding IP. The extensive IP offering comes with the option of customizing certain IP blocks, which means that customers can combine X-FAB IP with their own IP for optimized functionality. To enable fast and easy design of new products X-FAB also provides process

design kits (PDKs), libraries with digital and analog circuit elements, and complex IP blocks such as embedded flash memories, related software, and consultancy services.

X-FAB's technology portfolio (see Fig. 4.3) spans geometries from 0.13µm to 1.0µm. The mature technologies down to the 0.18µm node provide very rich feature sets and thus enable a wide range of applications. X-FAB's approach to extending this portfolio is driven by customer demand to enable further appli-

cations, so the feature set for the 0.13µm node will be extended successively and new process nodes will be added eventually. To mention a few examples: the current 0.18µm SOI technology is able to operate at voltages up to 200 volts, which is crucial for medical ultrasound equipment. Integrated optical sensors enable light curtain safety devices for automated factories. Embedded flash memories, which are qualified for automotive applications and support high temperatures, are suited for controller ICs placed in a car close to the motor.

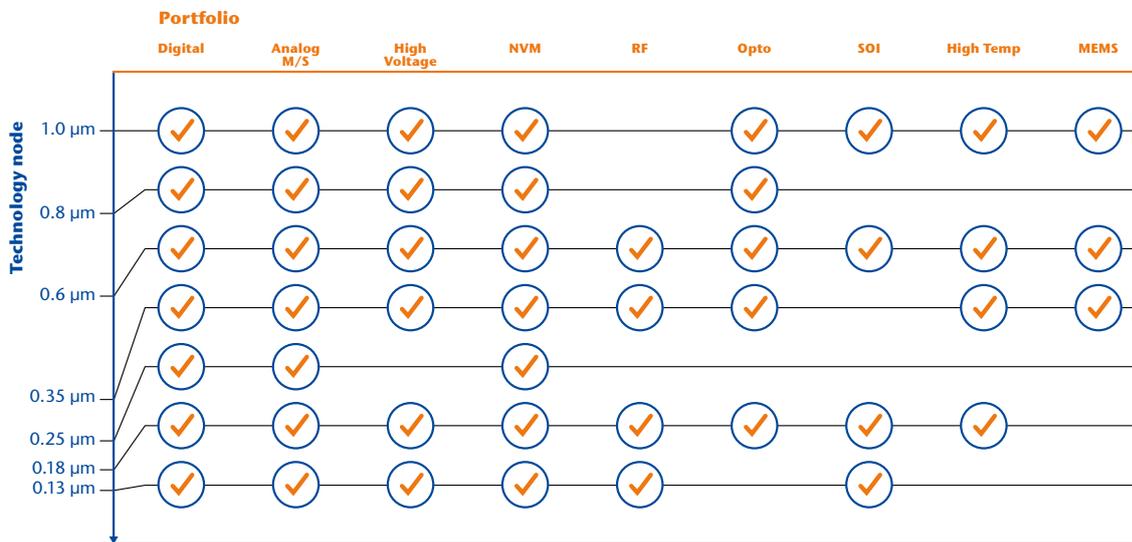


Fig. 4.3: X-FAB process portfolio and features

2019 R&D highlights include:

- the release of avalanche photo diode (APD) and single photon avalanche photo diode (SPAD) suitable for a broad range of applications including proximity sensing, LiDAR, time of flight (ToF), and medical imaging;
- the release of new high-voltage galvanic isolation technology, which helps to protect human interfaces from contact with high voltages and is suitable to be used in applications such as data communication in field bus systems, in battery management systems, or in medical equipment;
- proof of concept of RISC-V based system-on-chip for use in smart sensors for IoT applications or ICs for engine control units;
- a multitude of additional options and features added in other open-platform CMOS and SOI technologies as well as additional design libraries and IP; some examples are:
 - new high-voltage devices (70V to 125V) for next generation automotive applications released;
 - non-volatile memory functions added to its 180nm BCD-on-SOI platform; and
 - tool for IC designers for substrate coupling analysis to address unwanted parasitic effects; and
- 40 new patent applications; 15 patents granted.

MEMS: Interface to the physical world
 Micro-electro-mechanical systems (MEMS) are semiconductor devices that serve as the interface between mechanical properties and electronics. These devices are unique in terms of the device architecture and the manufacturing process. In many cases, the launch of a new MEMS product requires the development of a **new customized manufacturing**

process, frequently accompanied by use of dedicated manufacturing equipment. Standardization – up to the level available in CMOS and SOI technology landscapes – has not been achieved yet. X-FAB took up this challenge and together with industry partners started a program for technology standardization.

Our current MEMS business, which recorded revenues of USD 38.1 million in 2019, can be characterized as follows:

- MEMS technologies at X-FAB are typically used for sensors, actuators, and 3D packaging applications with strong emphasis on products that feature system-on-chip (SoC) integration of MEMS with CMOS ICs.
- Among applications typically manufactured in higher volumes are pressure sensors, acceleration sensors and strain gauges, MEMS microphones, and microfluidic medical devices for cell sorting and drug screening.

The highlights relating to X-FAB's MEMS business in 2019 was the launch of a joint development program enabling the manufacturing for next-generation DNA sequencing and the production release of a next generation open-platform technology for inertial sensors. In addition, X-FAB extended its portfolio of open-platform pressure sensors targeting automotive applications under harsh environments.

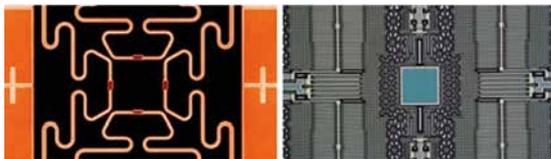


Fig. 4.4: Microscopic structures of MEMS inertial sensors, e.g. freely suspended silicon structures of an inclination sensor (left) and silicon comb structures of a rotation rate sensor (right)

Silicon carbide: Automotive is now the driving force

X-FAB's SiC foundry business kept accelerating in 2019. It benefitted from an overall trend towards electrification in the automotive and industrial market, because SiC devices are now being adopted into many applications.



Fig. 4.5: Megatrends in power electronics: automotive, battery charging, renewables, IT infrastructure

Looking to the future, X-FAB is excited about the prospects as SiC moves into photovoltaics and solar power conversion applications as well as into the electric vehicle (EV) market. X-FAB believes that its automotive quality systems along with the available scale established with silicon processing will enable SiC customers to succeed in this market.

The largest opportunity for silicon carbide growth is in the SiC transistor market. SiC transistors will replace silicon over time for power applications, such as inverters or charging stations, power factor correction, or photovoltaic applications. For X-FAB's SiC business there is strong growth projected: it is estimated for the annual SiC power market to reach a manufacturing volume of 2,000,000 wafers by 2025.

Over the next five to ten years the power transistor market will be driven by SiC adoption for automotive applications. Systems built on SiC devices enable higher efficiency resulting in a longer driving range of electrical cars.

While SiC devices for on-board chargers are already in use today, the main use for SiC transistors in electric cars will be in the inverter driving the electric motor.



X-FAB supports the **electrification of cars** and we aim at offering our customers the **full range of technologies** required in power systems.

Rudi De Winter, CEO

X-FAB is well positioned to support the electrification of cars as the share of power semiconductors in hybrid/electric vehicles is expected to grow considerably while the number of electric vehicles is increasing at the same time.

The following milestones were achieved in 2019:

- SiC epi equipment installed and started manufacturing of prototypes
- Overall SiC customer count increased to 20
- SiC revenues doubled in 2019 coming in at USD 23.1 million

Customer orientation: Long-standing relationships and strong product customization

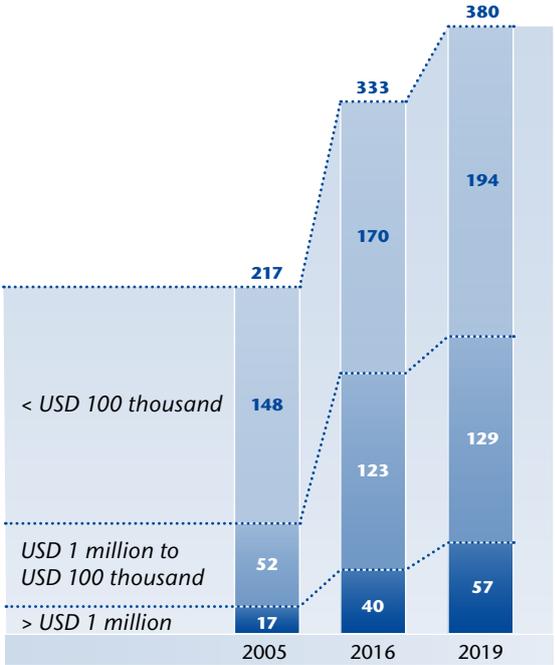


Fig. 4.6: X-FAB's customer count by annual revenue. X-FAB has grown to a diverse base of 380 customers worldwide

The majority of X-FAB's customers are so-called fabless semiconductor companies (often also called fabless houses): companies that have no own manufacturing and process technology expertise but rely on foundries for

those services and related expertise. A smaller part of X-FAB's customer base are either original equipment manufacturers (OEMs) or integrated device manufacturers (IDMs).

X-FAB has a diverse base of 380 customers worldwide and continually wins new customers in its core markets (see Fig. 4.6).

Due to the high degree of product customization usually required by customers, a specialty foundry is also less vulnerable to the high price, demand, and stock volatility experienced by many competitors in the broader foundry market. At the same time, it tends to serve many more customers at any given point in time, including start-ups and universities, often helping them to realize highly innovative product concepts with prototyping or very small early-volume production. X-FAB's focus on highly customized analog/mixed-signal ICs, resulting in smaller production volumes per each product and requiring more engineering input per unit, is typically yielding higher margins than more commoditized ICs.

Two aspects are important for X-FAB to ensure long-lasting customer loyalty. For more than 90% of products manufactured, X-FAB is the sole source. Since most of the customer products are designed using X-FAB proprietary process technologies and design IP, it would require significant effort to move products to other suppliers. By providing a wide range of design-related product and support services as part of its comprehensive offering, including engineering, technical, and design support, X-FAB typically has strong, long-lasting relationships with its customers. Through special offers, like post-processing of CMOS ICs and sensors or further processing towards the final IC product through 3D packaging, X-FAB accomplishes significant manufacturing steps, creating a higher added value.



Fig. 4.7: Illustrative lifecycle for an automotive product: Analog/mixed-signal products are much more specialized for their applications and are used for many years

Those long-standing customer relationships are crucial because a large portion of the products manufactured by X-FAB show long product lifecycles of **ten or more years**. For example, X-FAB's first medical product, a pressure sensor for blood pressure monitoring, has been in production for more than 20 years without any modifications.



Best-in-class support: X-FAB's close relationships with customers

X-FAB aims to differentiate its business through technology combined with excellent technical support. A strong asset of X-FAB is its close collaboration with customers. X-FAB employees work in direct contact with customers over the entire lifetime of an IC

product. From a request for a quotation and the selection of the best-suited process technology to the start of volume production, X-FAB has dedicated teams to assist its customers with technical, commercial, and logistical support and consultation. Fig. 4.8 shows the assignment of X-FAB teams to every phase of an IC product lifetime.

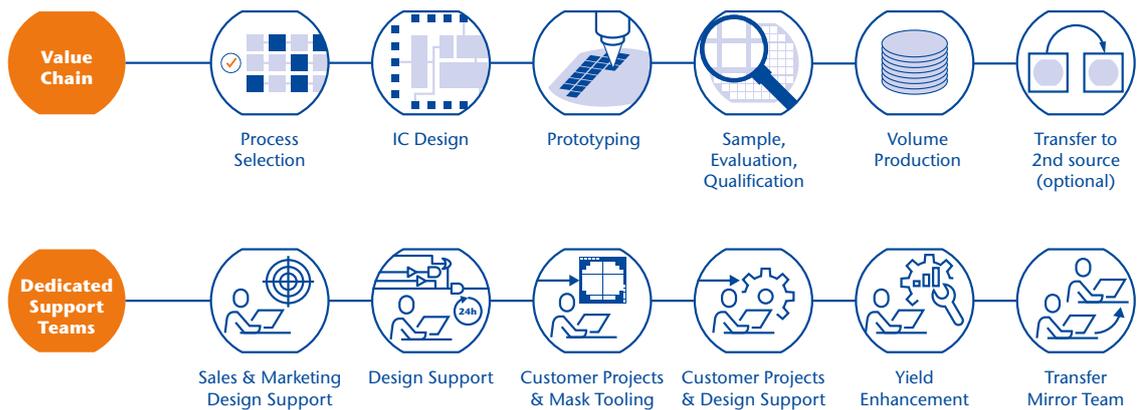


Fig. 4.8: X-FAB offers comprehensive technical customer support along the value chain

X-FAB's strategic markets



X-FAB focuses on **three core markets, automotive, industrial, and medical**, which all share the same requirements for quality and reliability and also feature similar market dynamics, including long product lifetimes.

According to the McClean Report 2020 by IC Insights the market for application-specific analog products for the automotive use fell by 1% (Fig. 13-18), while the industrial analog market, which includes medical applica-

tions, decreased by 10% (Fig. 13-19). X-FAB's revenue in these markets showed a decline of 14% for automotive and 4% for industrial. The medical business grew by strong 17%.

X-FAB enables innovative solutions to address global challenges such as:

- global warming;
- the replacement of fossil energy by sustainable energy;
- cost of healthcare and aging population;

and is confident of success due to its:

- close collaboration with market leaders in various markets;
- ongoing investment in new technologies;

- wide portfolio of technologies and capabilities; and
- strong pipeline of projects in prototyping stage.

These properties allow X-FAB to also supply successfully into the market for **consumer, communications, and computer products**. As an example, X-FAB's RF technology based on RF SOI has been designed in into both handsets and infrastructure for 4G and 5G networks as well as Wi-Fi connectivity. Our current technology offering and technologies in development will support the adaptation of the fifth generation of cellular mobile communications (5G) requirements to manage today's and tomorrow's data volumes.



Fig. 4.9: Tomorrow's data volumes are going to exponentiate many times

Automotive electronics – building reliability and trust

Product reliability and established trust in suppliers are two key prerequisites for successfully serving the automotive industry. ICs produced at X-FAB can be found everywhere in a car, in the interior as well as under the hood. Functions directly accessible to the driver such as control of the interior lighting, hands-free phone kits, and parking assistance as well as battery management, tire pressure monitoring, and anti-lock braking systems are



all exploiting X-FAB technologies. The ever-increasing demand for electronic content in all vehicles will lead to future growth for X-FAB.



Fig. 4.10: Main areas of automotive applications

The electrification of cars requires intelligent solutions for battery management and charging. Transistors manufactured at X-FAB's SiC foundry enable systems with higher energy efficiency, thus increasing the reach of one battery charge. X-FAB's high-voltage and high-temperature process can cope with the challenging environmental conditions of under the hood applications.



Fig. 4.11: Battery management and charging are key aspects for the electrification of cars

Safety in traffic will be improved by sophisticated techniques of collision prevention, distance control, lane change assistance, and blind spot detection, ultimately paving the way for autonomous driving. The increasing relevance of environmental protection is leading to innovations to improve fuel efficiency and reduce pollution. Connected cars will be enabled by the advent of 5G cellular mobile networks.

X-FAB is working with its lead customers to address the needs of electronics in automotive innovation. Among the described growth areas the electrification of vehicles might be the biggest technology shift the automotive industry has ever seen. By 2040 electric vehicles will represent about 55% of global light duty vehicle

sales according to Bloomberg. As cars become more and more sophisticated X-FAB will be right there to develop the technologies to make it happen. For electric vehicles, the biggest challenge is battery life, which is synonymous with driving range. X-FAB already provides advanced technologies to address this challenge, such as its high-voltage and SiC offerings.

Industrial electronics – supporting higher energy efficiency

The market for application-specific analog ICs for industrial applications is a **highly fragmented market** spanning applications from avionics to factory automation. About 60% of X-FAB's current customers in production address the industrial market and rely on X-FAB's ability to provide volume production over a 10 to 15-year period. Four global megatrends are driving the next industrial revolution and will change our way of producing, consuming, and living: **Industry 4.0** with an end-to-end connected value chain; **factory automation** including industrial IoT, robots, machine-to-machine communication, **smart cities**, enabling central building management and improving urban lives through interaction and management of connected services; and, finally, **sustainable energy** through exploiting renewable sources of energy and improving power management.



Factory automation



Smart city



Industrial IoT



Renewable sources of energy and improving power management

Fig. 4.12: Main areas of industrial applications

X-FAB is positioned to play a major role in addressing those megatrends based on its commitment to industrial markets and customers. The Group's competitive advantages rely on **four pillars**:

- X-FAB makes it very **easy** for industrial customers to work with. Industrial applications usually require small to medium volume which X-FAB can efficiently handle.
- **Design support.** X-FAB provides comprehensive design support and high-quality IP to achieve first-time-right design. For industrial customers that want to outsource their IC design efforts, X-FAB maintains a global partner network of service providers for design, test, assembly, and supply chain management.
- X-FAB's **quality systems.** X-FAB's automotive technologies fit well with most industrial applications, which often also operate in harsh environments.
- Be a **reliable foundry partner.** X-FAB is a trusted supplier and has built long relationships with its industrial customers.

Medical electronics – enabling innovative solutions



The chips X-FAB manufactures for medical applications are used in **equipment** or **devices** where people, doctors, and patients depend on reliable, accurate, and error-free operation or data. X-FAB delivers chips for **personal medical devices** from cardiac pacemakers and spinal cord stimulators to traditional and implanted hearing aids. In equipment for the medical imaging technologies ultrasound and X-ray sensors in X-FAB's specialized technologies can be found. The ability to integrate CMOS and MEMS is key for **lab-on-a-chip applications** including DNA sequencing, cancer diagnosis, and pharmaceutical research. Products to monitor the state of patients' health, such as

blood pressure monitors and glucose meters, leverage X-FAB's open-platform MEMS offering and accurate analog processes.



Fig. 4.13: Main areas of medical applications

A trend for the next few years is the **evolution of consumer wearables** with the aim of medical precision, offering the user actionable insights into her or his physical conditions.

Implantable devices are very important for patients with chronic diseases, and research in this area will continue to provide new therapies, for example for rheumatism, strokes, or obesity. Portable devices will move medical imaging from hospitals and medical practices to patients' homes for point-of-care testing. Further trends in ultrasonic imaging are wireless probe heads and 3D imaging.



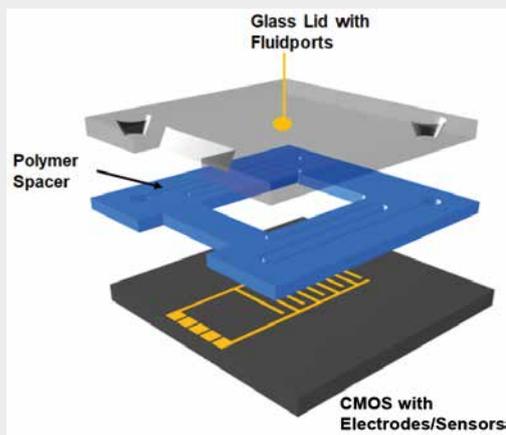
Fig. 4.14: X-FAB manufactures an application-specific integrated circuit (ASIC) for usage in leadless pacemakers

With the rapid decline in the costs of DNA sequencing since the availability of next-generation sequencing technology in 2007, new uses have been introduced for health care, industry, and research. Companies offer genetic testing as a service, the analysis of pathogens will help to contain epidemics, and the examination of our food will help to identify contaminations or allergens. The availability of affordable genetic information pushes the development of personalized medicine, with great benefits for patients and huge potential for cost-saving in the health-care sector because of more effective therapies.

Lab-on-a-chip or microfluidics are devices to handle minute quantities of liquids or biomaterial, usually on a chip or in a small cavity. That is where X-FAB's capability to **combine CMOS and MEMS** is a key benefit, and manufacturing steps, for which customers initially had to engage with several suppliers, are now provided by X-FAB exclusively.

According to market research, the lab-on-a-chip market is growing at a CAGR of more than 25% from 2019 until the mid-20s.

Configuration of a lab-on-a-chip device



A lab-on-a-chip device consists of a CMOS chip with a glass lid forming a cavity and in this cavity a sample of, for example, blood can be applied. The advantages of lab-on-a-chip systems are that they require only small quantities of fluids for analysis, offer fast response time at lower costs and reduced waste. Examples are DNA sequencing, the detection of pathogens in a blood sample, or the investigation of individual cells to monitor their reaction to pharmaceuticals.

Example of lab-on-a-chip use:

- Sepsis is one of the leading causes of death in the world, resulting in 5.3 million fatalities per year.
- It is the number one killer in European and U.S. hospitals.
- A point-of-care platform provides diagnosis in five minutes, increasing the survivability rate by 80%.

Events and initiatives

In 2019, X-FAB hosted several events for its customers and prospective clients and launched an initiative to stimulate prototype development using X-FAB's technologies.

To raise the awareness of X-FAB in China, X-FAB ran a campaign spanning three major Chinese cities with 200 attendees from 110 companies followed by a technical seminar in December with 120 participants.



In Europe, X-FAB partnered with French and Belgian industry clusters to host a one-day event framed around medical electronics which was attended by more than 100 participants from nearly 50 companies.



In collaboration with imec and Fraunhofer Institute for Integrated Circuits X-FAB expanded its participation in the EURORACTICE program with the goal to encourage greater innovation and creativity at chip level, as well as significantly lower the financial barrier for academia and start-up companies.



I thought we were the right target for X-FAB, which was confirmed to be true. I was glad to attend and to be able to get to know them more.

Medical company – feedback on X-FAB's medical event in 2019





WE HELP TO CONNECT PEOPLE

X-FAB technologies for our future.

5. X-FAB CONSOLIDATED FINANCIAL STATEMENTS

5.1 Summary of important developments

Revenue and results

The Group's total sales revenue in 2019 amounted to USD 506,417 thousand (2018: USD 587,899 thousand), a decrease of 14% compared to the previous year. The Group recorded net loss in 2019 of USD 48,541 thousand compared to a net profit of USD 22,552 thousand in the previous year.

Implementation of IFRS 16

As described in the explanatory notes, there has been a change in the method of calculating the expenses recorded for leased assets which affects the amounts reported for cost of sales, research and development costs, and, accordingly, amounts for EBIT, EBITDA, and profit or loss from the date of the initial application of the new IFRS accounting standard IFRS 16 Leases from January 1, 2019. Under the new standard, certain assets held under lease arrangements which were previously not recognized in the balance sheet have been recognized as right-of-use assets from January 1, 2019. This has resulted in a change to the method of reporting the costs incurred for use of the assets, i.e. the payment of the lease installments. Up to and including in 2018, leasing payments were recorded as an expense in the consolidated statement of profit or loss. Instead, with the exception of leases already recognized in the statement of financial position under predecessor accounting standards, from January 1, 2019 the discounted values of the future lease payments are recorded as a right-of-use asset within property, plant, and equipment and as a lease liability. Thereafter, depreciation on the affected leased assets is recorded and the interest element of the leasing cost is recorded as an interest expense in the financial result. Due to the cumulative catch-up approach applied on transition, the comparative figures have not been restated. Had there been no change in the accounting requirements the EBIT and EBITDA in 2019 would have amounted to USD -44,280 thousand and USD 24,268

thousand instead of USD -43,865 thousand and USD 28,421 thousand, respectively, on a comparable basis with the accounting method applied in 2018. The effect of the application of IFRS 16 on earnings per share was not significant enough to affect the amounts of earnings per share reported by the Group.

Cost of sales

Cost of sales includes material expenses such as raw materials, the costs of maintaining fixed assets, depreciation, staff costs, and costs incurred for external production-related services. In 2019, cost of sales decreased by USD 4,764 thousand, representing a 1% decline compared to the previous year due to lower sales in 2019. The sales decrease was compensated by a higher depreciation as well as warranty costs causing gross profit to decrease by 74%.

The cost of sales includes depreciation of USD 3,739 thousand in 2019 (2018: none) on right-of-use assets which have been recognized as depreciable assets for the first time under the requirements of IFRS 16. The cost of sales in 2018 included USD 4,043 thousand (2019: none) expenses for those same leases which have no longer been recorded as operating leases from January 1, 2019 as the underlying leased assets have been recognized under the requirements of IFRS 16. Due to the cumulative catch-up approach applied on transition, the comparative figures have not been restated.

Research and development expenses

Research and development expenses amounted to USD 28,298 thousand in 2019, representing 6% of revenue (2018: 5%). Compared to the previous year the research and development expenses decreased by 9% which corresponds with the decrease in revenue. The Group's research and development activities focus on development of new fabrication processes, optimization of existing processes using the Group's key process technologies, and development of new integrated circuit features in order to meet customers' analog/mixed-signal needs.

General, administrative, and selling expenses

General, administrative, and selling expenses decreased by 2% in 2019.

Financial result

The net financial result increased by USD 6,254 thousand from USD -7,307 thousand in 2018 to USD -1,053 thousand in 2019. This increase is mainly attributable to currency exchange gains. In addition, the financial result includes interest of USD 744 thousand (2018: none) on lease liabilities for leasing arrangements in which the leased assets have been recognized as depreciable assets for the first time under the requirements of IFRS 16.

5.2 Statement of the Board of Directors

The Board of Directors certifies, on behalf and for the account of the Company, that, to their knowledge,

- the consolidated financial statements, which have been prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position, and profit or loss of the Company and the entities included in the consolidation as a whole; and
- the annual report provides a fair view of the development and results of the Company and the companies included in the consolidation, as well as a description of the main risks and uncertainties that they are exposed to.

5.3 Statutory auditor's report to the general meeting of X-Fab Silicon Foundries SE on the consolidated financial statements as of and for the year ended December 31, 2019

In the context of the statutory audit of the consolidated financial statements of X-Fab Silicon Foundries SE ("the Company") and its subsidiaries (jointly "the Group"), we provide you with our statutory auditor's report. This includes our report on the consolidated

financial statements for the year ended December 31, 2019, as well as other legal and regulatory requirements. Our report is one and indivisible.

We were appointed as statutory auditor by the general meeting of March 16, 2017, in accordance with the proposal of the board of directors issued on the recommendation of the audit committee. Our mandate will expire on the date of the general meeting deliberating on the annual accounts for the year ended December 31, 2019. We have performed the statutory audit of the consolidated financial statements of X-Fab Silicon Foundries SE for 12 consecutive financial years.

Report on the consolidated financial statements**Unqualified opinion**

We have audited the consolidated financial statements of the Group as of and for the year ended December 31, 2019 prepared in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium. These consolidated financial statements comprise the consolidated statement of financial position as at December 31, 2019, the consolidated statements of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended and notes, comprising a summary of significant accounting policies and other explanatory information. The total of the consolidated statement of financial position amounts to USD 866.396 thousand and the consolidated statement of profit or loss and other comprehensive income shows a loss for the year of USD 48.541 thousand.

In our opinion, the consolidated financial statements give a true and fair view of the Group's equity and financial position as at December 31, 2019 and of its consolidated finan-

cial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium.

Basis for our unqualified opinion

We conducted our audit in accordance with International Standards on Auditing (“ISAs”) as adopted in Belgium. In addition, we have applied the ISAs as issued by the IAASB applicable for the current accounting year while these have not been adopted in Belgium yet. Our responsibilities under those standards are further described in the “Statutory auditors’ responsibility for the audit of the consolidated financial statements” section of our report. We have complied with the ethical requirements that are relevant to our audit of the consolidated financial statements in Belgium, including the independence requirements.

We have obtained from the board of directors and the Company’s officials the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matter

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of deferred tax assets

We refer to note 4.19 of the consolidated financial statements for the accounting policies relating to deferred taxes and to note 6.13 for the disclosures relating to deferred taxes as at December 31, 2019.

– Description

The X-Fab Group, which is subject to various tax jurisdictions and resulting obligations, has a significant amount of unused tax losses carried forward (USD 174,4 million) and deductible temporary differences (USD 333,2 million) and has recognized deferred tax assets of USD 33,9 million as at December 31, 2019.

Deferred tax assets are recognized only to the extent that it is probable that sufficient future taxable profits will be generated, against which the unused tax losses carried forward and deductible temporary differences can be utilized. Significant judgement is required to assess the amount of probable future taxable profits that support the recognition of deferred tax assets.

– Our audit procedures

In collaboration with our own tax specialists we have assessed the Group’s ability to utilize the deferred tax assets. Our procedures included amongst others:

- Obtaining the forecasted taxable income in the various tax jurisdictions and reconciling these to the latest budget and forecasts approved by the board of directors;
- Assessing the consistency and reliability of the Group’s approach to budgeting by comparing historical budgets to actual results;
- Challenging management’s key assumptions used in its budget and forecasts, such as projected growth rates, by comparing them with our own expectations derived from our knowledge of the industry and our knowledge gained during our audit;

- Recalculating independently the deferred tax assets which comprise a combination of temporary differences between tax and accounting values as well as available tax losses;
- Assessing whether deferred tax assets had been appropriately recognized in the consolidated financial statements as at December 31, 2019 based on the extent to which they can be recovered by future taxable profits; and
- Assessing the adequacy of the relevant disclosures.

Board of directors' responsibilities for the preparation of the consolidated financial statements

The board of directors is responsible for the preparation of these consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium, and for such internal control as board of directors determines, is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the board of directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the board of directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Statutory auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance as to whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. 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 the users taken on the basis of these consolidated financial statements.

When performing our audit we comply with the legal, regulatory and professional requirements applicable to audits of the consolidated financial statements in Belgium. The scope of the statutory audit of the consolidated financial statements does not extend to providing assurance on the future viability of the Group nor on the efficiency or effectivity of how the board of directors has conducted or will conduct the business of the Group.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional skepticism throughout the audit. We also perform the following procedures:

- 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 our 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 controls 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 the Group's internal control;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by board of directors;
- Conclude on the appropriateness of board of directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the audit committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

For the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Responsibilities of the Board of Directors

The board of directors is responsible for the preparation and the content of the board of directors' annual report on the consolidated financial statements, the statement of the non-financial information attached to the board of directors' annual report on the consolidated financial statements and the other information included in the annual report.

Statutory auditor's responsibilities

In the context of our mandate and in accordance with the Belgian standard which is complementary to the International Standards on Auditing as applicable in Belgium, our responsibility is to verify, in all material respects, the board of directors' annual report on the consolidated financial statements, the statement

of the non-financial information attached to the board of directors' annual report on the consolidated financial statements and the other information included in the annual report, and to report on these matters.

Aspects concerning the board of directors' annual report on the consolidated financial statements and other information included in the annual report

Based on specific work performed on the board of directors' annual report on the consolidated financial statements, we are of the opinion that this report is consistent with the consolidated financial statements for the same period and has been prepared in accordance with article 3:32 of the Companies' and Associations' Code.

In the context of our audit of the consolidated financial statements, we are also responsible for considering, in particular based on the knowledge gained throughout the audit, whether the board of directors' annual report on the consolidated financial statements and other information included in the annual report, being Chapter 1 'Letter to the stakeholders' contain material misstatements, or information that is incorrectly stated or misleading.

In the context of the procedures carried out, we did not identify any material misstatements that we have to report to you.

The non-financial information required by article 3:32 §2 of the Companies' and Associations' Code has been included in section 6 of the board of directors' annual report on the consolidated financial statements. The Company has prepared this non-financial information based on the Global Reporting Initiative ("GRI") standards. In accordance with art 3:80 §1, 1st paragraph, 5° of the Companies' and Associations' Code, we do not comment on whether this non-financial information has been prepared in accordance with the mentioned GRI standards.

Information about the independence

- Our audit firm and our network have not performed any engagement which is incompatible with the statutory audit of the consolidated accounts and our audit firm remained independent of the Group during the term of our mandate.
- The fees for the additional engagements which are compatible with the statutory audit referred to in article 3:65 of the Companies' and Associations' Code were correctly stated and disclosed in the notes to the consolidated financial statements.

Other aspect

- This report is consistent with our additional report to the audit committee on the basis of Article 11 of Regulation (EU) No 537/2014.

Hasselt, March 23, 2020

KPMG Réviseurs d'Entreprises/
Bedrijfsrevisoren
Statutory Auditor
represented by

Herwig Carmans
Réviseur d'Entreprises / Bedrijfsrevisor

5.4 Consolidated financial statements

Consolidated statement of profit or loss and other comprehensive income

For the year ended December 31

in thousands of U.S. dollars	Note	2019	2018
Revenue	6.1/12	506,417	587,899
Cost of sales	6.2/6.6/12	(479,128)	(483,892)
Gross profit		27,289	104,007
Research and development expenses	6.3/6.6/12	(28,298)	(31,237)
Selling expenses	6.4/6.6/12	(8,080)	(8,070)
General and administrative expenses	6.5/6.6	(30,728)	(31,499)
Rental income and expenses from investment properties	6.7/6.8/12	(129)	1,021
Impairment loss on trade receivables		(36)	(457)
Other income and other expenses	6.9/6.10/12	(3,884)	(847)
Operating profit (loss)		(43,866)	32,918
Finance income	6.11/12	13,049	21,296
Finance costs	6.12/12	(14,102)	(28,603)
Net financial result		(1,053)	(7,307)
Profit/(loss) before tax		(44,919)	25,611
Income tax	6.13	(3,622)	(3,059)
Profit/(loss) for the period		(48,541)	22,552
Attributable to:			
Equity holders of the parent		(48,566)	22,533
Non-controlling interest	7.9	25	19

Consolidated statement of profit and loss and other comprehensive income (continued)

For the year ended December 31

in thousands of U.S. dollars	Note	2019	2018
Profit/(loss) for the period (brought forward from previous page)		(48,541)	22,552
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurement of defined benefit liability (asset)	7.10	(488)	(501)
Items that are or may be transferred to profit or loss as follows:			
Foreign currency translation differences for foreign operations		94	(46)
Income tax on other comprehensive income		-	-
Other comprehensive income for the period, net of income tax		(394)	(547)
Total comprehensive income for the period		(48,935)	22,005
Total comprehensive income attributable to:			
Owners of the Company		(48,960)	21,986
Non-controlling interest	7.9	25	19
Total comprehensive income for the period		(48,935)	22,005
Weighted average number of shares outstanding, basic and diluted	6.14	130,631,921	130,631,921
Earnings per share			
Basic and diluted (in U.S. dollars)	6.14	-0.37	0.17

The accompanying notes are an integral part of these consolidated financial statements.

The Group initially applied IFRS 16 at January 1, 2019, using the modified retrospective approach. Under this approach, comparative information is not restated. See note 4.20.

Consolidated statement of financial position

in thousands of U.S. dollars	Note	December 31, 2019	December 31, 2018
ASSETS			
Non-current assets			
Property, plant, and equipment	7.1	368,754	345,626
Investment properties	7.1	9,128	9,415
Intangible assets	7.2	8,363	9,023
Non-current investments		736	381
Other non-current assets	7.5	27,568	20,594
Deferred tax assets	6.13	33,922	34,234
Total non-current assets		448,471	419,273
Current assets			
Inventories	7.3	154,649	147,150
Trade and other receivables	7.4/12	55,636	71,378
Income tax receivables	6.13	958	1,069
Other assets	7.5	33,471	25,630
Cash and cash equivalents	7.6	173,211	242,768
Total current assets		417,925	487,995
Total assets		866,396	907,268
EQUITY AND LIABILITIES			
Equity			
Share capital	7.7	432,745	432,745
Share premium	7.7	348,709	348,709
Retained earnings		(133,835)	(84,782)
Cumulative translation adjustment	7.7	(445)	(539)
Treasury shares	7.7	(770)	(770)
Total equity attributable to equity holders of the parent		646,404	695,363
Non-controlling interests	7.9	377	364
Total equity		646,781	695,727
Non-current liabilities			
Non-current loans and borrowings	7.10	92,389	72,328
Non-current provisions	7.13	64	86
Other non-current liabilities	7.11	7,342	7,360
Total non-current liabilities		99,795	79,774
Current liabilities			
Trade payables	7.12/12	38,327	45,889
Current loans and borrowings	7.10	26,658	31,632
Income tax payable	6.13	2,658	1,901
Provisions	7.13	6,622	3,206
Other current liabilities	7.12	45,555	49,139
Total current liabilities		119,820	131,767
Total equity and liabilities		866,396	907,268

The accompanying notes are an integral part of these consolidated financial statements.

The Group initially applied IFRS 16 at January 1, 2019, using the modified retrospective approach. Under this approach, comparative information is not restated. See note 4.20.

Consolidated statement of changes in Group equity

in thousands of U.S. dollars	Note	Shares issued and fully paid	Share capital	Share premium	
At January 1, 2018		130,781,669	432,745	348,709	
Profit for the period					
Remeasurement of defined benefit plans					
Currency translation effect, net of tax					
Total comprehensive income		-	-	-	
Transactions with owners of the Company					
Distribution to non-controlling interests (GVG)	7.9				
Total transactions with owners of the Company		-	-	-	
At December 31, 2018		130,781,669	432,745	348,709	
Profit/(loss) for the period					
Remeasurement of defined benefit plans					
Currency translation effect					
Total comprehensive income		-	-	-	
Transactions with owners of the Company					
Distribution to non-controlling interests (GVG)	7.9				
Total transactions with owners of the Company		-	-	-	
At December 31, 2019		130,781,669	432,745	348,709	

The accompanying notes are an integral part of these consolidated financial statements.

The Group initially applied IFRS 16 at January 1, 2019, using the modified retrospective approach. Under this approach, comparative information is not restated. See note 4.20.

	Retained earnings	Cumulative translation adjustment	Treasury shares	Total attributable to owners of the parent	Non-controlling interests	Total equity
	(106,814)	(493)	(770)	673,377	357	673,734
	22,533			22,533	19	22,552
	(501)			(501)		(501)
		(46)		(46)	-	(46)
	22,032	(46)	-	21,986	19	22,005
					(12)	(12)
	-	-	-	-	(12)	(12)
	(84,782)	(539)	(770)	695,363	364	695,727
	(48,566)			(48,566)	25	(48,541)
	(488)			(488)		(488)
		94		94	-	94
	(49,054)	94	-	(48,960)	25	(48,935)
					(12)	(12)
	-	-	-	-	(12)	(12)
	(133,836)	(445)	(770)	646,403	377	646,780

Consolidated statement of cash flows

For the year ended December 31

in thousands of U.S. dollars	Note	2019	2018
Cash flow from operating activities:			
Profit for the period		(48,541)	22,552
Income tax		3,622	3,059
Income before taxes		(44,919)	25,611
Reconciliation of net income to cash flow arising from operating activities:			
Depreciation and amortization, before effect of grants and subsidies	6.6/ 7.1/7.2	72,286	61,492
Amortization of investment grants and subsidies	6.6	(3,750)	(2,820)
Interest income and expenses (net)	6.11/6.12	1,582	1,019
Loss/(gain) on the sale of plant, property and equipment (net)	6.9/6.10/ 7.1/7.2	2,202	900
Loss/(gain) on the change in fair value of financial assets (net) and derivatives	6.11/10	(355)	4,033
Other non-cash transactions (net)	8	2,111	1,354
Changes in working capital		(12,093)	(41,468)
Decrease/(increase) of trade and other receivables	7.4	16,169	10,387
Decrease/(increase) of other assets	7.5	(16,342)	7,992
Decrease/(increase) of inventories	7.3	(7,498)	(41,304)
(Decrease)/increase of trade payables	7.12/8	(33)	(18,770)
(Decrease)/increase of other liabilities and provisions	7.11/7.12/7.13	(4,389)	227
Income taxes (paid)/received		(2,061)	(1,020)
Net cash from operating activities		15,003	49,101
Cash flow from investing activities:			
Payments for property, plant, equipment, and intangible assets	7.1/7.2	(78,942)	(84,423)
Payments for investments in investment properties	7.1	(16)	(679)
Payments for investments	10	(350)	(150)
Payments for loan investments to related parties	12	(231)	(199)
Proceeds from loan investments related parties	12	217	178
Proceeds from the sale of property, plant, and equipment	7.1	454	206
Interest received	6.11/6.12	2,648	3,156
Net cash used in investing activities		(76,220)	(81,911)

in thousands of U.S. dollars	Note	2019	2018
Cash flow from financing activities:			
Proceeds from loans and borrowings	7.10	24,706	-
Repayment of loans and borrowings	7.10	(34,667)	(34,703)
Receipts from sale and leaseback arrangements	7.10/8	1,187	-
Payment of lease liability (2018: payment of financial lease liabilities)	7.10	(5,485)	(2,561)
Receipt of government grants and subsidies		9,609	357
Interest paid	6.10/6.11	(1,551)	(2,195)
Payment of preference dividend	7.10/8	(1,000)	(1,000)
Dividends to non-controlling interests	7.9	(11)	(12)
Net cash from financing activities		(7,212)	(40,114)
Effects of changes in foreign currency exchange rates on cash balances		(1,128)	(3,543)
Net increase/(decrease) of cash and cash equivalents		(68,429)	(72,924)
Cash and cash equivalents at the beginning of the period		242,768	319,235
Cash and cash equivalents at the end of the period		173,211	242,768

The accompanying notes are an integral part of these consolidated financial statements.

The Group initially applied IFRS 16 at January 1, 2019, using the modified retrospective approach. Under this approach, comparative information is not restated. See note 4.20.

Notes to the consolidated financial statements

1 Basic information and description of the X-FAB Silicon Foundries SE Group's business

X-FAB Silicon Foundries SE (hereafter referred to as "X-FAB SE," "the Company," or "the parent company" and, together with its subsidiaries, as "X-FAB SE Group" or "the Group") is a European limited company (Societas Europaea/SE) registered under the number BEO882.390.885 in Hasselt, Belgium. The parent company's registered address is Transportstraat 1, 3980 Tessenderlo, Belgium.

The Group has no associates, joint ventures, joint operations, or investments in unconsolidated structured entities (entities designed so that voting or similar rights are not the dominant factor in deciding which party controls the entity).

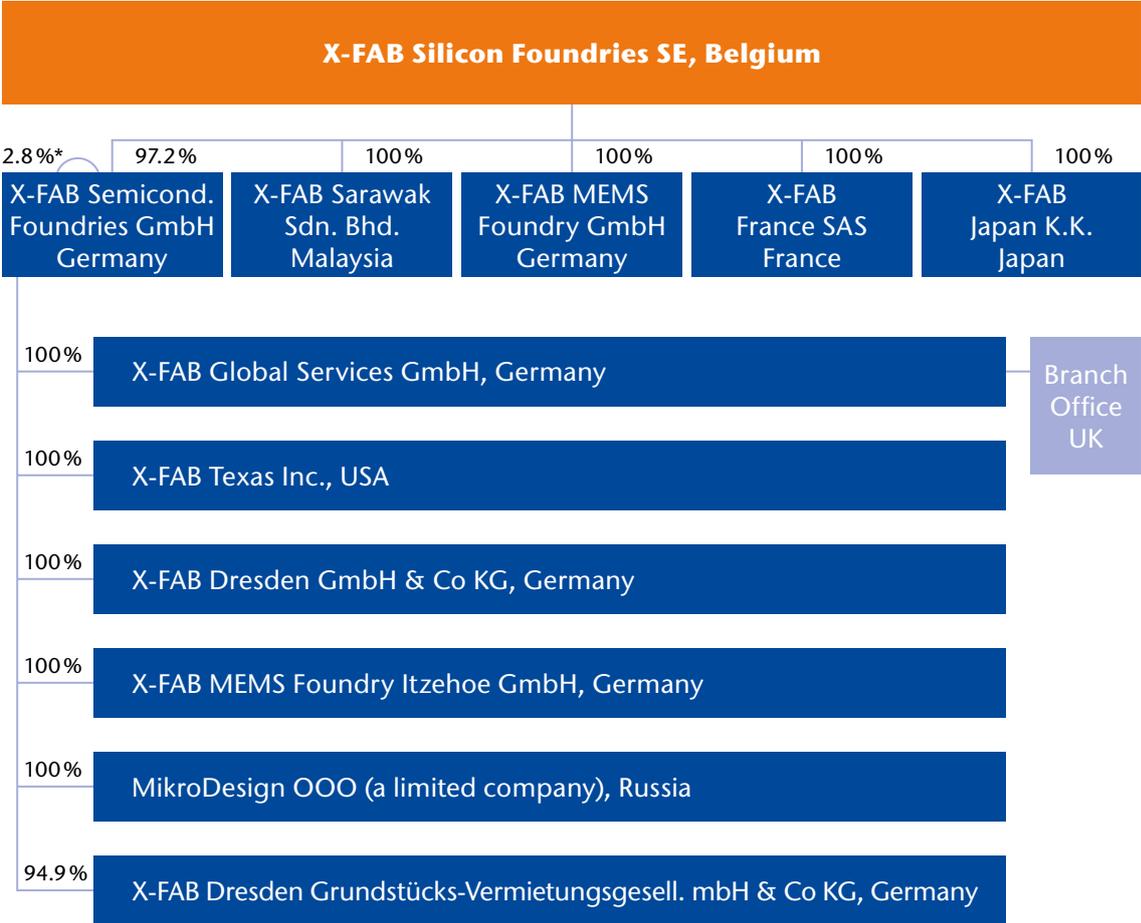
The X-FAB SE Group is one of the world's leading pure-play foundry providers specializing in analog/mixed-signal technologies.

Analog/mixed-signal products are circuits capable of processing digital as well as analog signals. As a pure-play foundry, the Group develops its own technologies, offering its customers a comprehensive range of product development (design support) and production services. The X-FAB SE Group manufactures integrated circuits to customers' designs, supplying these in the form of silicon wafers. For this purpose, X-FAB SE offers special technology modules, cell libraries, and design kits, which allow the Group's customers to develop specific circuits with broad function spectrums and to accelerate their development processes.

X-FAB SE Group's customers include companies that concentrate on the development of integrated circuits (ICs) and leave their manufacture to others (fabless companies). The Group's customers are primarily in the communication, automotive, consumer, and industrial product sectors, and are located in Europe, the United States, and Asia.

2 Group structure

The X-FAB SE Group structure as of December 31, 2019 is illustrated below.



* Treasury shares of X-FAB GmbH

X-FAB Dresden GmbH & Co. KG refers to X-FAB Dresden GmbH & Co. KG and X-FAB Dresden Verwaltungs-GmbH

The Group’s primary operations are held by X-FAB Semiconductor Foundries GmbH (X-FAB GmbH), X-FAB Dresden GmbH & Co. KG (X-FAB Dresden), X-FAB Texas Inc., Lubbock, Texas (X-FAB Texas), X-FAB Sarawak Sdn. Bhd. (X-FAB Sarawak), and X-FAB France SAS (X-FAB France), each of which operate wafer factories at their respective locations. X-FAB MEMS Foundry Itzehoe GmbH (MFI) and X-FAB MEMS Foundry GmbH (XMF) offer process technologies for the fabrication of micromechanical sensors for the detection of pressure, acceleration, rotation, and IR-radiation including integrated solutions that combine MEMS and CMOS. X-FAB Global Services GmbH was founded in 2019 as a spin-off of X-FAB GmbH in order to combine the Group’s R&D, M&S and administration services into one company. The remaining entities provide research and development services to other Group entities or serve administrative purposes.

3 Basis of preparation

3.1 Statement of compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as endorsed by the European Union. All IFRS and IAS standards and associated interpretations were adopted to the extent that they had been endorsed by the European Union by the date of issue of these financial statements.

The consolidated financial statements of X-FAB SE Group for the year ended December 31, 2019 were authorized for issue in accordance with a resolution of the directors on March 20, 2020.

3.2 Basis of measurement

The consolidated financial statements have been prepared on a historical cost basis, except for derivative financial assets and liabilities and certain non-derivative financial investments which are measured at fair value. The net defined benefit liability is measured at the present value of the defined obligation less the fair value of plan assets.

This is the first reporting period in which the Group applies the new accounting standard IFRS 16 Leases. Changes to significant accounting policies are described in note 4.20.

3.3 Functional and presentation currency

The consolidated financial statements are presented in U.S. dollars (USD), which is the functional and presentation currency of the parent company and the Group's primary operating companies. Amounts are rounded to the nearest thousand except when otherwise indicated. Rounding differences may occur.

3.4 Use of judgments, assumptions, and estimation uncertainties

In preparing these consolidated financial statements management has made judgments, assumptions, and estimates that affect the application of the Group's accounting policies and the reported amounts of assets, liabilities, income, and expenses. Actual amounts may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Judgments

Determination of functional currency

The functional currency of the holding company and most of its subsidiaries has been assessed as the USD due to the fact that the currency that mainly influences sales prices for goods and services is the USD. Only two subsidiaries have different functional currencies (respectively the euro and the Russian ruble). These subsidiaries are not significant to the Group's consolidated financial statements.

With respect to the holding company the assessment is based on the fact that the holding acts as an investment holding (in operational subsidiaries with USD as their functional currency) and its sole activity consists of the re-allocation of Group costs which are incurred and subsequently recharged in USD. Hence the USD is deemed the most appropriate functional currency of the holding for the preparation of the consolidated financial statements.

Revenue recognition (note 4.3)

Judgment was applied in determining whether revenue from the sale of process control wafers should be recognized over time or at a point in time. Based on management's assessment of its contracts with customers, the Group has determined that only a limited number of contracts provide for an enforceable right to payment for performance completed in the case that a customer would cancel a contract for reasons other than any failure to perform as promised. As a result, the potential recognition of contracts over time has been considered to be not material.

Recognition of right-of-use assets and lease liabilities (notes 4.17 and 11)

The Group recognizes right-of-use assets and lease liabilities for certain assets held under

leasing arrangements. Some of the Group's lease contracts include renewal or termination options. In order to determine the lease term for these contracts the Group took into account all relevant facts and circumstances in order to assess whether it is reasonably certain that these options will be exercised. This assessment has an impact on the term of the lease, which has a significant effect on the amount of the lease liabilities and the measurement of the right-of-use asset recognized. Should the Group make changes to its assessment of whether the renewal or termination options will be exercised, it may be necessary to increase or decrease the right-of-use assets and lease liabilities recognized.

Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment in the next financial year is included in the following notes:

Recognition of deferred tax assets (note 6.13)

Deferred tax assets are recorded where it is considered probable that tax savings will be made in future periods from the use of losses carried forward and from the reversal of taxable timing differences arising on the difference between the accounting and tax values of the Group's assets. Taxable profits and the reversal of timing differences in the next financial year may differ from the amounts assumed, and assumptions made in the next financial year about future taxable profits and reversals of subsequent years may change. Such changes could result in a material adjustment.

Measurement of expected credit losses (ECLs) on trade receivables (note 7.4)

Allowances are made to reflect estimates of the amount of ECLs on any receivables. The actual amount of credit losses for receivables in the year ending December 31, 2020 may differ from the amounts recorded as impairments in the year ended December 31, 2019, which may result in a material adjustment.

Measurement of fair values

A number of the Group's accounting policies and disclosures require the measurement of fair values, both for financial and non-financial assets and liabilities.

If third-party information is used to measure fair values, the evidence obtained from third parties is assessed to support the conclusion that such valuations meet the requirements of IFRS 13, including the level in the fair value hierarchy in which such valuations should be classified.

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible.

Fair values are classified into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.
- Level 2: other techniques for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly.
- Level 3: techniques that use inputs which have a significant effect on the recorded fair value that are not based on observable market data.

If the inputs used to measure the fair value of an asset or a liability might be categorized in different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group measures transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- 7.1 Property, plant, equipment and investment properties
- 7.4 Trade and other receivables
- 7.6 Cash and cash equivalents
- 7.10 Current and non-current loans and borrowings
- 10 Financial instruments – fair values and risk management

4 Summary of accounting policies

4.1 Basis of consolidation

Entities included in the consolidation

The consolidated financial statements include the financial statements of the parent company and its subsidiaries, which are entities directly or indirectly controlled by the parent company. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Control is generally obtained by ownership of a majority of shares.

The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

The financial statements of the subsidiaries are prepared for the same reporting year as the parent company, using consistent accounting policies.

All intra-group balances, transactions, income, and expenses, as well as profits and losses resulting from intra-group transactions, are fully eliminated in these consolidated financial statements.

Non-controlling interests

Non-controlling interests represent the portion of profit or loss, component of other comprehensive income and net assets of a subsidiary attributable to equity interests that are not owned, directly or indirectly, by the parent company. Non-controlling interests' share of income and share of equity are presented separately in the income statement and with-in equity in the consolidated statement of fi-

ancial position respectively, separately from parent shareholder's equity.

Non-controlling interests are measured at the date of acquisition at their proportionate share of the acquired company's identifiable net assets.

4.2 Foreign currency translation

Transactions in foreign currencies are initially recorded at the functional currency rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rate of exchange ruling at the statement of financial position date. All differences are taken to profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate as at the dates of the initial transactions. If the functional currency of a consolidated entity differs from the Group's presentation currency, assets and liabilities of that entity are translated into the presentation currency at the closing rate at the statement of financial position date, whereas equity is translated using the historic rates, and the income statement is translated at the average rate of the reporting period. All resulting differences are recognized in the cumulative translation adjustment in equity.

4.3 Revenue from contracts with customers

Sales revenue is measured based on the consideration specified in a contract with a customer. Sales revenues are recognized net of discounts, customer bonuses, and rebates granted.

There is no significant uncertainty concerning the nature, amount, or timing of the revenue or the cash flows of the revenues reported. The Group recognizes revenue when it transfers control over a good or service to a customer.

Sale of process control wafers (PCM wafers)

PCM wafers are goods that are generally customer specific, i.e. when manufacturing goods for a customer, X-FAB is creating an asset for the customer that has no alternative

use to X-FAB. However, for the majority of contracts with its most important customers, X-FAB has determined that it does not have an enforceable right to obtain payment for work completed should a customer cancel an incomplete contract for reasons other than any failure by X-FAB to perform as promised. Accordingly, revenue from the sale of process control wafers (PCM wafers) is recognized when shipment has been made. At this date, control over the goods has passed to the customer. Invoices for the sale are generated at that point in time. Invoices are usually payable within 30 days. No discounts of the invoiced amounts are offered to customers in exchange for prompt payment of invoices. Sales prices with customers do not include a significant financing component.

Sales of non-recurring engineering services (NRE) and technology services

When providing non-recurring engineering (NRE) services and technology services X-FAB creates an asset for a customer that has no alternative use to X-FAB as the prototype wafers created are generally customer specific. Invoices are issued according to contractual terms – based on milestones – and are usually payable within 30 days. X-FAB has an enforceable right to payment for the performance of work completed up to the agreed milestones. Revenue is therefore recognized over time and X-FAB applies a practical expedient for the measurement of progress. Invoicing based in milestones is a reasonable approximation of the progress made to completing the performance obligation. No discounts of the invoiced amounts are offered to customers in exchange for prompt payment of invoices. Sales prices with customers do not include a significant financing component.

Rental and other income

Revenue in respect of rental and other income is recognized over time when the relevant service is provided (see 4.6 below).

Warranty obligations

Provisions for warranty obligations are made based on past experience.

Contract costs and contract fulfillment costs

Costs of obtaining contracts requiring capitalization have been incurred by the Group; however, the deferral of such costs is not material for the purposes of these consolidated financial statements.

No costs of fulfilling contracts requiring capitalization have been incurred which are not recorded as assets in accordance with IAS 2 Inventories, IAS 16 Property, Plant and Equipment, or IAS 38 Intangible Assets.

4.4 Research and development expenses

Research and development expenses comprise staff expenses, depreciation, and other directly attributable expenses and are allocated process based, i.e. relate to research and development activities that are not related to the improvement of the existing production technologies. Costs incurred in connection with improving existing production technologies used in operational production lines are allocated to cost of sales.

Research and development costs are expensed as incurred. X-FAB SE Group considers that development work performed does not qualify for capitalization because the amount of future benefits to be derived from use of work performed is characterized by a high level of uncertainty until the projects are completed.

Government grants are awarded to the Group for its research and development activities in the form of cash tax payments or tax credits. IAS 20 Government Grants is applied to all grants, including the research and development grants received by X-FAB France which is paid out using the French corporation tax system. The grants are recognized as income and as a non-current or current asset, as appropriate, when there is reasonable assurance that the entity will comply with the relevant conditions set out in the terms of the grant ar-

rangement and that the grant will be received. These income-related grants are recognized in profit or loss on a systematic basis as the entity recognizes as expenses the costs that the grants are intended to compensate.

4.5 Finance income and finance costs

Interest income or expense is recognized using the effective interest method. Dividend income is recognized in profit or loss on the date on which the Group's right to receive payment is established.

4.6 Rental income from investment properties

Rental income from operating leases on investment property is accounted for on a straight-line basis over the lease term. Lease incentives granted are recognized as an integral part of the total rental income and recognized over the term of the lease.

4.7 Employee benefits

Employee benefits consist of short-term employee benefits, payments into defined contribution pension schemes and a long-service retirement lump-sum payment scheme at the Group's subsidiary X-FAB France. The Group has no share-based payment arrangements.

Short-term employee benefits are expensed as the related service is provided. A liability is recognized for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

The Group's net obligation in respect of the long-service retirement lump-sum payment scheme is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods, dis-

counting that amount and deducting the fair value of any plan assets. The calculation of the obligation is performed annually by an independent third-party expert actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements. Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss. When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

4.8 Property, plant, equipment, and investment properties

Property, plant, and equipment are measured at purchase cost less accumulated depreciation and accumulated impairment losses. Purchase cost includes expenditure that is directly attributable to the acquisition of the asset. These accounting policies have also been applied to investment properties under the cost model in accordance with IAS 40.

Depreciation is provided using the straight-line method for property, plant, factory and office equipment and for investment properties. Depreciation is calculated to write off the cost of items of property, plant and equipment less their estimated residual values using the straight-line method over their estimated useful lives. In the previous year technical equipment was depreciated on a units-of-production basis. As described in 4.20, below, the change in policy has not had a material effect on the consolidated financial statements. The following useful lives are used as a basis for calculating depreciation:

- Buildings including investment properties
40–50 years
- Factory and office equipment
3–10 years

Borrowing costs were not capitalized because no assets qualifying for the capitalization of borrowing costs were constructed or acquired in the period. Costs incurred which extend the useful life of assets, or which increase performance or capacity of assets, are capitalized where appropriate. Maintenance and repair costs are expensed as incurred. When discrete components of an item of property, plant, or equipment have different useful lives, they are accounted for as separate items of property, plant, and equipment.

Assets are recorded as disposals when they are sold or scrapped. The resulting gain or loss is recorded in income within “other income” or “other expenses” as appropriate.

4.9 Intangible assets

Purchased intangible assets are capitalized at purchase cost, including, where applicable, own work capitalized in preparing the intangible assets for use, and depreciated on a straight-line basis over their expected useful lives. The useful life applied is five years.

Internally generated intangible assets were not capitalized because the criteria for capitalization were not met (see note 4.4).

The Group has no intangible assets with indefinite useful lives.

4.10 Impairment

The carrying amounts of the Group’s non-financial assets other than inventories and deferred tax assets (for which separate reviews are performed) are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists then the asset’s recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the “cash-generating unit”).

An impairment loss is recognized if the carrying amount of an asset or its cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognized in profit or loss. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the units and then to reduce the carrying amounts of the other assets in the unit (group of units) on a pro rata basis.

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset’s carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

4.11 Financial instruments

Recognition and initial measurement

Trade receivables are initially recognized when they are originated, i.e. when or as the goods and services are provided and the revenue for those goods and services is recognized. Regular way purchases and sales of financial assets were accounted for at the settlement date. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the financial instrument.

The Group's trade receivables do not include a significant financing component and the amounts recognized for trade receivables are initially recognized at the transaction price. All other financial assets and financial liabilities are initially recognized at fair value plus, for items not recognized at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue.

Classification and subsequent measurement

On initial recognition, a financial asset is classified as measured at amortized cost; FVOCI – debt investment; FVOCI – equity investment; or FVTPL.

(a) Financial assets at amortized cost

A financial asset is classified as measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(b) Debt investments at fair value through other comprehensive income (FVOCI)

A debt investment is classified as measured at fair value through other comprehensive income if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and;
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(c) Equity investments at fair value through other comprehensive income (FVOCI)

An equity investment is classified as measured at fair value through other comprehensive income if it is not held for trading and the Group irrevocably elects to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

(d) Financial assets at fair value through profit or loss (FVTPL)

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets, equity investments held for trading and equity instruments not held for trading, but for which the Group did not elect to present fair value changes in other comprehensive income.

On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise. No such designations have been made by the Group.

Financial assets – business model assessment

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- the stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management’s strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;
- how the performance of the portfolio is evaluated and reported to the Group’s management;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed;
- how managers of the business are compensated – e.g. whether compensation is based on the fair value of the assets managed or the contractual cash flows collected; and
- the frequency, volume, and timing of sales of financial assets in prior periods, the reasons for such sales, and the expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group’s continuing recognition of the assets.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Financial assets – Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, “principal” is defined as the fair value of the financial asset on initial recognition. “Interest” is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin. In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable-rate features;
- prepayment and extension features; and
- terms that limit the Group’s claim to cash flows from specified assets (e.g. non-recourse features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a discount or premium to its contractual par value, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

Financial assets – Subsequent measurement and gains and losses

Financial assets at FVTPL

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss. The Group does not apply hedge accounting and accordingly does not apply alternative allowed accounting treatments permitted for derivatives designated as hedging instruments.

Financial assets at amortized cost

These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

Debt investments at FVOCI

These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments at FVOCI

These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

Financial liabilities

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held for trading, it is a derivative, or it is designated as such on initial recognition, whereby no liabilities as at FVTPL have been made by the

Group. Financial liabilities at FVTPL are measured at fair value, and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

Derecognition

Financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognized in its statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

Financial liabilities

The Group derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

Offsetting

No financial assets or liabilities are presented on a net basis in these consolidated financial statements.

Impairment

The Group recognizes loss allowances for the expected credit losses (ECLs) that it expects to incur over the lifetime of financial assets which it measures at amortized cost. An exception is made for cash and cash equivalents that are determined to have a low credit risk at the reporting date that, because of the good standing of the Group's banking partners, is so low that the ECLs are insignificant, and other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) have not increased significantly since initial recognition.

Loss allowances for trade receivables are always measured at an amount equal to lifetime ECLs. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

Measurement of ECLs for non-credit-impaired receivables is assessed collectively based on a probability-weighted estimate of credit losses dependent on the number of days the balances are overdue. Expected credit losses are measured based on past experience of the recovery of similar portfolios of receivables as the Group considers this to be a reasonable approximation of the present value of the shortfalls that can be expected in future. ECLs are discounted at the effective interest

rate of the financial asset if the discounting effect is determined to be material. Based on the contractual agreements, receivables are in default when the balances are unpaid by the due date. Dunning collection procedures commence when a receivable is 10 days overdue. Receivables are classified as credit impaired from the date on which the receivable is 90 days overdue, despite dunning procedures having been performed, or from the date any other specific indications are received that a significant deterioration in credit has occurred. Credit-impaired receivables are assessed on a case-by-case basis and assessments of collectability are based on the information available concerning the outstanding balance, including discussions with the customer, assessments of the reliability of the information provided, available counterclaims or security, an understanding of the economic climate in which the customer operates, and experience with that customer as well as experience of similar collection procedures.

The relevant amounts are written off when the Group considers that there is no realistic prospect of recovery of the receivable and when no further enforcement activity is taken. When a customer is in liquidation the outstanding amounts are listed and monitored in an ongoing liquidation register until the liquidation process is complete.

Fair values of cash and cash equivalents and current receivables and liabilities

The fair values of cash and cash equivalents, current receivables, and current liabilities approximate their book values due to their short-term nature.

4.12 Derivative financial instruments

The Group holds derivative financial instruments to hedge certain foreign currency and interest risk exposures. Embedded derivatives are separated from the host contract and accounted for separately if the host contract is not a financial asset and certain criteria are met. Derivative financial instruments are not designated as hedging instruments for hedge

accounting purposes and are accordingly classified as fair value through profit or loss.

Gains and losses from changes in the fair values of the derivative financial instruments are reported in the income statement within finance income and finance expenses. The fair values of the derivative financial instruments are presented in the statement of financial position as other current assets and/or other current liabilities, as appropriate, unless their maturity exceeds twelve months in which case they will be presented as non-current.

4.13 Inventories

Inventories of raw materials, consumables, and supplies are measured at the lower of cost and net realizable value. The cost of inventories comprises all costs of purchase, cost of conversion, and other costs incurred in bringing the inventories to their present location and condition, determined by using the weighted average acquisition cost method. Allowances are recognized if the carrying amount exceeds the expected sales price less the estimated cost to complete the inventories and the cost of marketing, sales, and distribution activities. Allowances are made in full for inventories with no realizable value.

4.14 Cash and cash equivalents

Cash and cash equivalents represent cash in hand, checks, and available balances on bank current accounts with an original maturity of four weeks or less. The use of cash and cash equivalents reported are in general not subject to restrictions with the exception of term deposits reported as cash in note 7.6.

4.15 Equity

Share capital

The nominal paid-in contribution amount on each share is recorded in share capital.

Share premium

Incremental costs directly attributable to the issue of share capital are recognized as a deduction from the share premium account, less any related tax effects.

Treasury shares

The Group reports treasury shares as deductions from the Group equity at the cost of purchase.

Equity instruments and financial liabilities

Equity instruments and financial liabilities (including share capital, loans, redeemable preference shares, loans, and borrowings) are classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Dividends and distributions relating to equity instruments are debited directly to reserves. Equity instruments issued are recorded at the proceeds received, net of direct issue costs. A financial liability exists where there is a contractual obligation to deliver cash or another financial asset to another entity, or to exchange financial assets or financial liabilities under potentially unfavorable conditions. In addition, contracts that result in the entity delivering a variable number of its own equity instruments are financial liabilities. Shares containing such obligations are classified as financial liabilities. Finance costs and gains or losses relating to financial liabilities are included in the income statement. The carrying amount of the liability is increased by the finance cost and reduced by payments made in respect of that liability.

4.16 Provisions

Provisions are recognized when present obligations (legal or constructive) exist which result from past events and which are expected to result in an outflow of resources of which the timing or amount is uncertain. The provisions are measured at the discounted amount of the expected future cash flows arising under the respective obligation at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as finance cost. Where the Group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a

separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in profit or loss. If the effect of the time value of money is material, provisions are discounted using a pre-tax rate that reflects current market assessments of the time value of money and of the risk specific to the liability.

A provision for restructuring is recognized when the Group has approved a detailed and formal restructuring plan, and the restructuring either has commenced or has been announced publicly. A provision for onerous contracts is recognized for each specific contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under the contract.

4.17 Leases

The Group has initially adopted IFRS 16 Leases from January 1, 2019. The Group has applied IFRS 16 using the modified retrospective approach under the IFRS 16 transition provisions under which the cumulative effect of initial application is recognized in the consolidated statement of financial position at January 1, 2019. Under this approach the comparative information presented for 2018 has not been restated, i.e. it is presented as previously reported in accordance with IAS 17. The right-of-use assets recognized for leased assets as a result of the initial implementation of IFRS 16 have been recognized at the same amounts as the associated leasing liabilities. See 4.20 for further details of the approach followed on initial application of IFRS 16 and for a description of the impact of the initial application.

Significant accounting policies for leases from January 1, 2019

Definition of a lease

From January 1, 2019 the Group assesses whether a contract is, or contains, a lease based on the new definition of a lease under IFRS 16. Under the new definition a contract is, or contains, a lease if a contract conveys a

right to control the use of an identified asset for a period of time in exchange for consideration. Previously, the Group determined at lease inception whether an arrangement was or contained a lease under the requirements of the predecessor standard IAS 17 and the interpretation IFRIC 4 Determining Whether an Arrangement Contains a Lease.

On transition to IFRS 16 the Group decided to apply the practical expedient to grandfather the assessment of which transactions are leases, and applied IFRS 16 only to contracts that were previously defined as leases. Contracts which were not identified as leases under IAS 17 and IFRIC 4 were not reassessed. Accordingly, the definition of a lease under IFRS 16 has only been applied to contracts entered into or changed on or after January 1, 2019.

The Group as lessee

The assets held under the Group's leasing arrangements are primarily commercial properties, production equipment, and infrastructure equipment. As a lessee, the Group previously classified leases as operating or finance leases based on its assessment of whether the lease transferred substantially all of the risks and rewards of ownership to the lessee.

Under IFRS 16 the Group recognizes right-of-use assets and lease liabilities for most assets, i.e. these are presented on-balance sheet. However, the Group has elected to not to recognize right-of-use assets and lease liabilities for leases of low-value assets. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term. The Group has not applied a simplification election available under IFRS 16 not to separate non-lease components of a lease. At inception or on reassessment of a contract that contains a lease component the Group allocates the consideration in the contract to each lease and non-lease component of the respective contract on the basis of their relative stand-alone prices.

The Group presents right-of-use assets within “property, plant, and equipment”, the same line as it presents underlying assets of the same nature that are owned by the Group. The Group does not hold any properties under leases which are classified as investment properties.

The Group presents lease liabilities within “loans and borrowings”, classified between current and non-current liabilities as appropriate.

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group’s incremental borrowing rate. Generally, the Group uses an estimate of its incremental borrowing rate as the discount rate.

The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- the exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early.

Some of the Group’s lease contracts include renewal or termination options. In order to determine the lease term for these contracts the Group took into account all relevant facts and circumstances in order to assess whether it is reasonably certain that these options will be exercised. This assessment has an impact on the term of the lease, which has a significant effect on the amount of the lease liabilities and the measurement of the right-of-use asset recognized.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group’s incremental borrowing rate. Generally, the Group uses an estimate of its incremental borrowing rate as the discount rate. The lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group’s estimate of

the amount expected to be payable under a residual value guarantee, if the Group changes its assessment of whether it will exercise a purchase, extension or termination option, or if there is a revised in-substance fixed lease payment. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Group presents its right-of-use assets in “property, plant, and equipment” and lease liabilities in “loans and borrowings” in the statement of financial position.

Short-term leases and leases of low-value assets

The Group has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short-term leases, including IT equipment. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

The Group as lessor

The Group is lessor at several locations where it leases commercial property which is owned by the Group but not used for its own commercial business purposes. The Group has classified these leases as operating leases, because they do not transfer substantially all of the risks and rewards incidental to the ownership of the assets.

At inception or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

When the Group acts as a lessor, it examines each lease at lease inception to determine whether is a finance lease or an operating lease. This consists of making an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this

is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group applies the exemption described above, then it classifies the sub-lease as an operating lease. If an arrangement contains lease and non-lease components, then the Group applies IFRS 15 to allocate the consideration in the contract.

All leases entered into by the Group as lessor to date have been classified as operating leases and relate to investment properties rented to third parties. The Group recognizes lease payments received under operating leases as income on a straight-line basis over the lease term as part of “Income from investment property rentals”.

Accounting for leases on transition to IFRS 16

The assets recognized on transition represent commercial properties, production equipment, and infrastructure equipment which has been recognized from January 1, 2019 on the initial application of IFRS 16. They also include production equipment and infrastructure equipment which had already been recognized on-balance sheet prior to the initial application of IFRS 16. The leases are for assets at different locations and are denominated in euros and Malaysian ringgit. Some of these leases include clauses providing for early termination or for lease extensions, the assumption of whether these will be exercised has been made based on the facts and circumstances in each case, which depend on the remaining length of time until the option can be exercised, the terms of the lease, and the nature of the asset.

On initial application of IFRS 16 the right-of-use assets and lease liabilities of leases which had previously been recognized on-balance sheet under IAS 17 were measured at the same amounts as in the consolidated financial statements for the year ended December 31, 2018. The lease liabilities arising under lease arrangements which had previously not been recognized on-balance sheet under IAS 17 were measured on initial application of IFRS 16 at the present value of the remaining lease payment obligations, discounted at the Group's estimate of its incremental borrowing rate at January 1, 2019; the associated right-of-use assets were measured at an amount equal to the liability, adjusted by the amount of any prepaid or accrued lease payments.

The Group applied the following practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17 (i.e. previously not recognized on-balance sheet).

- The exemption not to recognize right-of-use assets and liabilities for leases with less than 12 months of lease term remaining was applied.
- Initial direct costs were excluded from the measurement of right-of-use assets at the date of initial application.
- Hindsight was used to determine the lease term if the contract includes options to extend or terminate lease.

As described above, on transition to IFRS 16 the Group recognized additional right-of-use assets of USD 21,786 thousand and leasing liabilities of USD 21,786 thousand. These are recognized in addition to assets already recognized under previous accounting standards as assets held under finance leases. The right-of-use assets are presented within the category property, plant, and equipment in the balance sheet. There was no effect on retained earnings as under the transition approach selected the additional amounts recognized are recognized at the same amount as the lease liability recorded on transition, as described above.

When measuring the lease liabilities for initial application of IFRS 16 on January 1, 2019 the Group discounted lease payments using an estimate of its incremental borrowing rate at January 1, 2019. The estimated incremental borrowing rates used at January 1, 2019 ranged from 0.28% to 2.18% for euro-denominated leases and from 4.00% to 5.47% for ringgit-denominated leases, depending on the remaining term of the respective leases, and were determined based on an interest-free base borrowing rate and a risk premium appropriate to the Group's rating.

The accounting policies applicable to the Group as a lessor are not different to the accounting policies applied under IAS 17. The Group is not an intermediate lessor in such arrangements. The Group was not required to make any adjustments on transition to IFRS 16 for leases in which it acts as a lessor. However, the Group has applied IFRS 15 Revenue from Contracts with Customers to allocate consideration in the respective contracts to each lease and non-lease component.

Accounting for leases prior to January 1, 2019

Lease arrangements were either classified as finance leases or operating leases. Arrangements under which the Group carried the significant risks and rewards from the use of an asset, and for which the Group can therefore be described as the economic owner, were treated as finance leases. The resulting assets and liabilities are recorded at the fair value of the asset at the date of the inception of the lease, or, if lower, at the present value of the future minimum leasing payments. All other lease arrangements are classified as operating leases with the consequence that the lease payments are expensed as incurred.

Minimum lease payments made under finance leases were apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Leased assets were depreciated over the useful life of the asset. However, if there was no reasonable certainty that the Group will obtain ownership by the end of the lease term, the assets were depreciated over the shorter of the estimated useful life of the asset and the lease term.

Sale and leaseback transactions

The Group entered into sale and leaseback transactions for property, plant, and equipment in 2019, however the amounts were not material to the consolidated financial statements (2018: none).

4.18 Subsidies

The Group receives government assistance in the form of government investment grants and investment subsidies which are dependent on the acquisition of certain assets qualifying under the respective grant awards. Grants and subsidies related to assets are recognized when there is reasonable assurance that the entity will comply with the relevant conditions of the grant, and that grant will be received. They are recognized in profit or loss on a systematic basis as the entity recognizes as expenses the costs that the grants are intended to compensate. The investment grants and subsidies received reduce the purchase cost for the relevant subsidized assets recorded under property, plant, and equipment.

The receipt of government assistance is governed by terms set out in law and by specific terms and conditions attached to the applicable grants and subsidies.

4.19 Income taxes

The income tax charge includes current and deferred taxation. Deferred income taxes reflect the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and the deferred benefits expected from unused tax losses, unused tax credits, and other credits carried forward, whereby amounts are only recognized when their realization is considered by management to be probable. Deferred tax assets and liabilities are mea-

sured using the tax rates expected to apply to taxable income in the years in which these temporary differences are expected to be recovered or settled, based on tax rates enacted or substantially enacted at the statement of financial position date.

The measurement of deferred tax liabilities and deferred tax assets reflects the tax consequences that would follow from the manner in which the enterprise expects, at the statement of financial position date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets are not discounted and are classified as non-current assets in the statement of financial position. Current and deferred tax assets and liabilities are offset only if certain criteria are met. Such criteria mean the entity has a legally enforceable right to set off the recognized amounts and it intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. Deferred tax assets are recognized when it is probable that sufficient taxable profits will be available against which the deferred tax assets can be utilized.

At each statement of financial position date, the Group reassesses unrecognized deferred tax assets and the carrying amount of deferred tax assets. The Group recognizes a previously unrecognized deferred tax asset to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered. The probability of recognition is based on the expected tax profits included in the Group's current business planning. The Group conversely reduces the carrying amount of a deferred tax asset to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or that entire deferred tax asset to be utilized. A deferred tax liability is recognized for all taxable temporary differences, unless the deferred tax liability arises from the initial recognition of goodwill or the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss.

4.20 Changes to accounting policies

New accounting pronouncements

The following amendments to standards, which are effective for annual periods beginning on or before January 1, 2019, have been applied by the Group for the first time in preparing these consolidated financial statements.

Standard/interpretation	Effective date
Amendments to IFRS 9: Prepayment Features with Negative Compensation	January 1, 2019
IFRS 16 Leases	January 1, 2019
IFRIC 23 Uncertainty over Income Tax Treatment	January 1, 2019
Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures	January 1, 2019
Annual Improvements to IFRSs 2015 – 2017	January 1, 2019
Amendments to IAS 19: Plan Amendment, Curtailment or Settlement	January 1, 2019

IFRS 16 Leases

The Group has initially adopted IFRS 16 Leases from January 1, 2019. IFRS 16 Leases replaces existing guidance on how an IFRS reporter will recognize, measure, present, and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize right-of-use assets representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value assets. Lessor accounting remains similar to previous accounting policies under the predecessor standard IAS 17, with lessors continuing to classify leases as operating or finance leases.

The Group has applied IFRS 16 using the modified retrospective approach under the IFRS 16 transition provisions under which the cumulative effect of initial application is recognized in the consolidated statement of financial position at January 1, 2019. Under this approach the comparative information presented for 2018 has not been restated, i.e. it is presented as previously reported in accordance with IAS 17. The reported amounts in the consolidated statement of financial position at January 1, 2019 for the right-of-use assets recognized for leased assets

as a result of the initial implementation of IFRS 16, to the extent that they were not already recognized under the predecessor accounting standards, have been recognized at the same amounts as the associated leasing liabilities.

The assets recognized on transition represent commercial properties, production equipment, and infrastructure equipment which has been recognized from January 1, 2019 on the initial application of IFRS 16. Right-of-use assets in the balance sheet also include production equipment and infrastructure equipment which had already been recognized on-balance sheet prior to the initial application of IFRS 16. The leases are for assets at different locations and are denominated in euros and Malaysian ringgit. Some of these leases include clauses providing for early termination or for lease extensions; the assumption of whether these will be exercised has been made based on the facts and circumstances in each case, which depend on the remaining length of time until the option can be exercised, the terms of the lease, and the nature of the asset.

On initial application of IFRS 16 the right-of-use assets and lease liabilities of leases which had previously been recognized on-balance sheet under IAS 17 were measured at the same amounts as in the consolidated financial statements for the year ended December 31, 2018. The lease liabilities arising under lease arrangements which had previously not been recognized on-balance sheet under IAS 17 were measured on initial application of IFRS 16 at the present value of the remaining lease payment obligations, discounted at the Group's estimate of its incremental borrowing rate at January 1, 2019; the associated right-of-use assets were measured at an amount equal to the liability, adjusted by the amount of any prepaid or accrued lease payments.

The Group applied the following practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17 (i.e. previously not recognized on-balance sheet).

- The exemption not to recognize right-of-use assets and liabilities for leases with less than 12 months of lease term remaining was applied.
- Initial direct costs were excluded from the measurement of right-of-use assets at the date of initial application.
- Hindsight was used to determine the lease term if the contract includes options to extend or terminate lease.
- The exemption not to make any adjustments on transition for leases for which the underlying asset is of low value was applied.

As described above, on transition to IFRS 16 the Group recognized additional right-of-use assets of USD 21,786 thousand and leasing liabilities of USD 21,786 thousand. These are recognized in addition to assets already recognized under previous accounting standards as assets held under finance leases. For assets already recognized under previous accounting standards as assets held under finance leases the carrying amount of the right-of-use asset and the lease liability at January 1, 2019 were determined at the carrying amount of the lease asset and lease liability under IAS 17 immediately before that date. The right-of-use assets are presented within the category property, plant, and equipment in the balance sheet. There was no effect on retained earnings as under the transition approach selected the additional amounts recognized are recognized at the same amount as the lease liability recorded on transition, as described above.

Had there been no change in the accounting requirements the EBIT and EBITDA in 2019 would have amounted to USD -44,280 thousand and USD 24,268 thousand instead of USD -43,865 thousand and USD 28,421 thousand, respectively, on a comparable basis with the accounting method applied in 2018. The earnings per share in 2019 would not have been affected by the change.

When measuring the lease liabilities for initial application of IFRS 16 on January 1, 2019 the Group discounted lease payments using an estimate of its incremental borrowing rate at January 1, 2019. The estimated incremental borrowing rates used at January 1, 2019 ranged from 0.28% to 2.18% for euro-denominated leases and from 4.00% to 5.47% for ringgit-denominated leases, depending on the remaining term of the respective leases, and were determined based on an interest-free base borrowing rate and a risk premium appropriate to the Group's rating.

The Group as lessor

The Group is lessor at several locations where it leases commercial property which is owned by the Group but not used for its own commercial business purposes. These leases have been classified as operating leases.

The accounting policies applicable to the Group as a lessor are not different to the accounting policies applied under IAS 17. The Group is not an intermediate lessor in such arrangements. The Group was not required to make any adjustments on transition to IFRS 16 for leases in which it acts as a lessor. However, the Group has applied IFRS 15 Revenue from Contracts with Customers to allocate consideration in the respective contracts to each lease and non-lease component.

Impact of transition

As described above, on transition to IFRS 16, the Group recognized additional right-of-use assets, including investment property of USD 21,786 thousand and additional lease liabilities of USD 21,786 thousand. There was no effect on retained earnings from the transition to IFRS 16.

The following table provides a reconciliation between the financial commitments disclosed at December 31, 2018 and the lease liability recorded on transition to IFRS 16 on January 1, 2019:

Standard/interpretation	January 1, 2019
Operating lease commitments at December 31, 2018 as disclosed under IAS 17	21,029
Discounted lease liability at January 1, 2019	21,786
Finance lease liabilities recognized as at December 31, 2018	4,501
Recognition exemption for leases of low-value assets	(42)
Recognition exemption for leases with less than 12 month lease term at transition	(109)
Other	151
Lease liabilities recognized at January 1, 2019	26,287

Other amendments to standards and new or amended interpretations

None of the remaining amendments to standards and new or amended interpretations had a significant effect on the consolidated financial statements of the X-FAB SE Group.

New standards, amendments to standards and interpretations are effective for annual periods beginning after January 1, 2020

A number of relevant new standards, amendments to standards and interpretations are effective for annual periods beginning after January 1, 2019, and have not been applied in preparing these consolidated financial statements.

IFRS 17 Insurance Contracts

IFRS 17 applies to insurance companies and accordingly it is not applicable to the Group's consolidated financial statements.

Amendments to IFRS 3 Business Combinations

The amendment to IFRS 3 Business Combinations, issued on October 22, 2018, provides more guidance on the definition of a business. The amendment includes an election to use a concentration test. This is a simplified assessment that will result in an asset acquisition if substantially all of the fair value of the gross assets is concentrated in a single identifiable asset or a group of similar identifiable assets. If one does not apply the concentration test, or the test is failed, then the assessment focuses on the existence of substantive process.

The amendment applies to businesses acquired in annual periods beginning on or after January 1, 2020 with earlier application permitted. The amendment has not yet been endorsed by the EU.

Amendments to References to the Conceptual Framework in IFRS Standards

On March 29, 2018, the IASB has issued Amendments to References to the Conceptual Framework in IFRS Standards (Amendments to CF). The Conceptual Framework sets out the fundamental concepts of financial reporting that guides the Board in developing IFRS Standards. It helps to ensure that the Standards are conceptually consistent and that similar transactions are treated the same way, providing useful information for investors and others. The Conceptual Framework also assists companies in developing accounting policies when no IFRS Standard applies to a particular transaction; and it helps stakeholders to understand the Standards better. Key changes include:

- Increasing the prominence of stewardship in the objective of financial reporting, which is to provide information that is useful in making resource allocation decisions.
- Reinstating prudence, defined as the exercise of caution when making judgements under conditions of uncertainty, as a component of neutrality.
- Defining a reporting entity, which might be a legal entity or a portion of a legal entity.
- Revising the definition of an asset as a present economic resource controlled by the entity as a result of past events.
- Revising the definition of a liability as a present obligation of the entity to transfer an economic resource as a result of past events.
- Removing the probability threshold for recognition, and adding guidance on derecognition.
- Adding guidance on the information provided by different measurement bases, and explaining factors to consider when selecting a measurement basis.

- Stating that profit or loss is the primary performance indicator and that, in principle, income and expenses in other comprehensive income should be recycled where the relevance or faithful representation of the financial statements would be enhanced.

The amendments are effective for annual periods beginning on or after January 1, 2020, whereas the Board will start using the revised Conceptual Framework immediately.

Amendments to IAS 1 and IAS 8:

Definition of Material

Amendments to IAS 1 and IAS 8: Definition of Material was issued on October 31, 2018 clarifying the definition of ‘Material’ and aligning the definition of ‘material’ across the standards. The new definition states that “information is considered material, if omitting, misstating or obscuring it could reasonably be expected to influence decisions that primarily users of general-purpose financial statements make on the basis of those financial statements, which provide information about a specific reporting entity”. The amendments clarify that materiality will depend on the nature or magnitude of information. The amendments are effective prospectively for annual periods beginning on or after January 1, 2020 with earlier application permitted.

Interest Rate Benchmark Reform (Amendments to IFRS 9, IAS 39, and IFRS 7)

On 26 September 2019, the IASB has issued Amendments to IFRS 9, IAS 39 and IFRS 7 (interest rate benchmark reform). The related amendments modify some specific hedge accounting requirements to provide relief from potential effects of the uncertainty caused by the IBOR reform. In addition, it requires companies to provide additional information to investors about their hedging relationships which are directly affected by these uncertainties.

The amendments are summarized as follows:

- When performing prospective assessments, a company shall assume that the interest rate benchmark on which the hedged item, hedged risk and/or hedging instrument are based is not altered as a result of their interest rate benchmark reform.
 - When applying IAS 39, the company is not required to undertake the IAS 39 retrospective assessment for hedging relationships directly affected by the reform. However, the company must comply with all other IAS 39 hedge accounting requirements, including the prospective assessment.
 - For hedges of a non-contractually specified benchmark component of interest rate risk, a company shall apply the separately identifiable requirement only at the inception of such hedging relationship.
- The amendments are effective for annual periods beginning on or after January 1, 2020 with earlier application permitted.
- The new or amended standards and interpretations are not expected to have a significant effect on the consolidated financial statements of the X-FAB SE Group. The Group does not plan to adopt these standards early.
- #### ***Changes to existing accounting policies***
- The Group has amended its accounting policy for depreciation of technical equipment. Prior to January 1, 2019 the Group depreciated its technical equipment on a units-of-production basis. From January 1, 2019 the Group has depreciated technical equipment on a straight-line basis in order to better reflect the consumption of the asset and in order to present depreciation for these assets in consistent manner with the depreciation of other plant, property and equipment. The previous year’s financial statements have not been reflected to reflect the change in accounting policy. The change was not material in either the current or previous year’s consolidated financial statements.
- When determining whether a forecast transaction is highly probable, a company shall assume that the interest rate benchmark on which the hedged cash flows are based is not altered as a result of the reform.

5 Business combinations

There have been no business combinations in the years ended December 31, 2019 or December 31, 2018 involving the Group.

6 Notes to the consolidated statement of profit or loss

6.1 Revenue

Revenue, which wholly and exclusively represents revenue from contracts with customers, comprises the following (refer to note 9 for revenue by geographic concentration):

in thousands of U.S. dollars	2019	2018
Gross revenue PCM wafer	439,299	529,329
Gross revenue NRE and technology services	67,736	58,549
Other revenue	17	20
Total	506,418	587,898

Revenue decreased by 14% compared to the previous year. While prototyping revenues remained strong throughout the year recording a growth of 14%, the decline was mainly caused by the drop in automotive production revenues and the consumer, communications & computer business (CCC).

No revenue is recognized in the current year from performance obligations satisfied in prior years (e.g. changes in transaction price).

6.2 Cost of sales

The cost of sales comprises the following:

in thousands of U.S. dollars	2019	2018
Employee-related expenses	(169,695)	(180,735)
Cost of materials	(112,184)	(123,664)
Depreciation and amortization	(62,538)	(53,336)
Facility costs	(62,391)	(62,207)
Costs of fixed assets (maintenance, spare parts, etc.)	(69,642)	(74,714)
Changes in inventories	(9,443)	12,790
Grants	10,972	10,541
Other	(4,207)	(12,567)
Total	(479,128)	(483,892)

Although revenues went down by 14%, cost of sales only declined by 1% in 2019 which is the combined effect of a lower sales volume, largely compensated by increases in warranty costs and depreciations (fixed costs).

The cost of sales includes depreciation of USD 3,738 thousand in 2019 (2018: none) on right-of-use assets which have been recognized as depreciable assets for the first time under the requirements of IFRS 16. The cost of sales in 2018 included USD 4,043 thousand (2019: none) expenses for those same leases which have no longer been recorded as operating leases from January 1, 2019 as the underlying leased assets have been recognized under the requirements of IFRS 16. Due to the cumulative catch-up approach applied on transition, the comparative figures have not been restated.

6.3 Research and development expenses

Research and development expenses comprise the following:

in thousands of U.S. dollars	2019	2018
Employee-related expenses	(23,589)	(24,463)
Cost of materials	(10,464)	(9,143)
Depreciation and amortization	(1,303)	(1,417)
Facility costs	(1,066)	(897)
Costs of fixed assets (maintenance, spare parts, etc.)	(3,785)	(3,843)
External services	(558)	(779)
Grants	14,027	9,944
Other	(1,560)	(639)
Total	(28,298)	(31,237)

Research and development expenses decreased consistently with the decreased sales volume in 2019. It is X-FAB's policy to maintain a consistent rate of research and development expenses in relation to revenue.

6.4 Selling expenses

The selling expenses comprise the following:

in thousands of U.S. dollars	2019	2018
Employee-related expenses	(7,006)	(6,976)
Advertising costs and costs of selling goods	(897)	(881)
Depreciation and amortization	(79)	(66)
Facility costs	(168)	(200)
Costs of fixed assets (maintenance, spare parts, etc.)	(5)	(9)
External services	(224)	(191)
Other	299	253
Total	(8,080)	(8,070)

6.5 General and administrative expenses

The general and administrative expenses comprise the following:

in thousands of U.S. dollars	2019	2018
Employee-related expenses	(19,565)	(21,411)
External services	(4,093)	(3,043)
Depreciation and amortization	(3,147)	(2,563)
Facility costs	(1,397)	(1,332)
Costs of fixed assets (maintenance, spare parts, etc.)	(1,389)	(1,795)
Insurance, dues, and fees	(1,270)	(1,257)
Other	133	(98)
Total	(30,728)	(31,499)

6.6 Expenses by nature

In the income statement, expenditures are classified by function. Expenses include depreciation charges allocated to the following items:

in thousands of U.S. dollars	2019	2018
Included in cost of sales	(61,637)	(52,538)
Included in research and development expenses	(1,090)	(1,037)
Included in selling expenses	(79)	(66)
Included in general and administrative expenses	(1,636)	(1,380)
Included in expenses related to investment properties and other expenses	(1,468)	(1,288)
Total	(65,910)	(56,309)

Expenses include charges for amortization of intangible assets allocated to the following items:

in thousands of U.S. dollars	2019	2018
Included in cost of sales	(901)	(798)
Included in research and development expenses	(213)	(380)
Included in general and administrative expenses	(1,511)	(1,183)
Total	(2,625)	(2,361)

Employee-related expenses allocated according to function in the income statement consist of the following:

in thousands of U.S. dollars	2019	2018
Wages and salaries	(166,030)	(176,625)
Social security costs	(37,549)	(38,675)
Contributions to defined contribution plans	(9,901)	(10,101)
Other Employee-related costs	(6,375)	(8,184)
Total	(219,855)	(233,585)

The decrease in staff costs compared to the previous year is primarily due to the use of short-time working arrangements, which were temporarily introduced at the Group's German locations.

Defined contribution plans primarily consist of contributions made under statutory schemes by employers to state-based defined contribution plans.

6.7 Rental income from investment properties

Rental income from investment properties comprises the following:

in thousands of U.S. dollars	2019	2018
Income from technical services provided	6,180	6,655
Income from investment property rentals	5,210	5,024
Total	11,390	11,679

Property rentals and technical services for tenants represent activities outside the X-FAB SE Group's core activities. Technical services mainly comprise the supply of power, water, cooling water, ultra-pure water, bulk gases, or compressed dry air.

6.8 Rental expenses related to investment properties

Expenses related to investment properties comprise the following:

in thousands of U.S. dollars	2019	2018
Expenses for technical services provided	(8,854)	(6,949)
Expenses for connection with investment property rentals	(2,665)	(3,708)
Total	(11,519)	(10,657)

Expenses in connection with investment properties mainly relate to depreciation and building maintenance. The increase in expenses is mainly due to costs allocated to investment property that is currently available for rent at X-FAB Texas.

6.9 Other income

Other income comprises the following:

in thousands of U.S. dollars	2019	2018
Income from recharges	4,413	2,867
Income from sales of materials	862	-
Gains on disposals of property, plant, and equipment	21	133
Other	905	687
Total	6,030	3,640

The income from recharges primarily results from charges for software maintenance costs to Melexis, a related party, included in the disclosures presented in note 12.

6.10 Other expenses

Other expenses comprise the following:

in thousands of U.S. dollars	2019	2018
Losses on disposal of property, plant, and equipment	(2,223)	(1,033)
Expenses from recharges	(4,413)	(2,792)
Other	(3,278)	(662)
Total	(9,914)	(4,487)

The expenses from recharges primarily relates to costs in connection with recharges for software maintenance provided to related parties. Refer to note 12.

6.11 Finance income

Finance income comprises the following:

in thousands of U.S. dollars	2019	2018
Interest on financial assets measured at amortized cost:		
Interest on cash and cash equivalents	2,580	3,199
Change in fair value of financial assets and liabilities at fair value through profit or loss:		
Change in fair value of derivative financial instruments	-	242
Gains on other financial assets classified as held for trading	355	-
Income from exchange rate differences	10,113	17,855
Total	13,048	21,296

The decrease in income from exchange rate differences is primarily due to the lower level of currency exchange rate gains on euro-denominated cash balances.

The line item "Change in fair value of derivative financial instruments" includes the unrealized net gain/loss on changes in fair values of interest rate swaps and foreign exchange derivatives. Realized gains and losses on derivative financial instruments relating to interest and foreign exchange are presented in interest income/expenses and income/expenses from exchange rate differences, respectively.

6.12 Finance costs

Finance costs comprise the following:

in thousands of U.S. dollars	2019	2018
Interest on financial liabilities measured at amortized cost:		
Loans and borrowings	(4,163)	(4,218)
Change in fair value of financial assets and liabilities at fair value through profit or loss:		
Change in fair value of derivative financial instruments	-	(4,096)
Loss on other financial assets classified as held for trading	-	(179)
Expenses from exchange rate differences	(9,939)	(20,110)
Total	(14,102)	(28,603)

Exchange rate expenses contain the translation effects of euro-denominated loans. Refer to note 7.10. The net loss from derivative financial instruments in 2018 results from the decrease of the positive fair value compared to 2017 due to termination of currency hedge contracts. Refer to note 10.

Interest expense includes interest of USD 744 thousand (2018: none) on lease liabilities for leasing arrangements in which the leased assets have been recognized as depreciable assets for the first time under the requirements of IFRS 16. Interest expenses on leases previously classified as finance leases under previous accounting standards for leases amounted to USD 204 thousand (2018: USD 291 thousand).

6.13 Income taxes

Income taxes comprise German corporation and trade taxes (plus solidarity surcharge), Belgian corporation tax charges, French tax and Malaysian tax charges on interest received. United States federal income taxes have not incurred during the reporting period as no taxable income was generated in that country or sufficient tax losses were available to offset taxable income.

Income taxes in the years 2019 and 2018 comprised the following:

in thousands of U.S. dollars	2019	2018
Current taxes:		
Actual income tax charge for the period	(3,350)	(3,468)
Adjustment of prior years' tax charges	42	(865)
	(3,308)	(4,333)
Deferred taxes	(313)	1,275
Total	(3,621)	(3,058)

The Belgian applicable tax rate applicable for the Group's result was 29.58% in 2019 (2018: 29.58%). The deferred tax assets and liabilities of the foreign subsidiaries are valued based on local tax rates. The Group's various German operations incur federal income taxes and local trade taxes which result in overall applicable tax rates of between 31.58% and 32.28%. The federal income tax rate applicable to the Group's earnings in the United States is 21.00% (2018: 21.00%), the tax rate applicable on earnings in Malaysia amounts to 25.00%, and the tax rate applicable to X-FAB France is 33.33%.

The reconciliation of the theoretical tax charge based on the IFRS net income before tax is as follows for the years 2019 and 2018:

in thousands of U.S. dollars	2019	2018
Result before taxes	(44,919)	25,611
Theoretical tax at combined applicable Belgian tax rate (29.58% in 2019 and 2018)	13,287	(7,576)
Recognition of previously unrecognized deferred tax on timing differences and tax losses	12,219	22,868
Current year losses for which no deferred tax asset is recognized	(38,899)	(18,191)
Adjustment of prior period tax liabilities recorded in the current period	42	(864)
Effect of tax-free income	12,230	3,964
Currency effects	(5,266)	(5,988)
Effect of permanent differences	58	109
Effect of non-deductible expenditures	(319)	(1,544)
Effect of changes in applicable tax rates enacted during the year	288	(10)
Effect of different tax rates applying to foreign operations	2,748	4,929
Differences which are only valid for special taxes	(9)	(756)
Income/(expense) for income taxes recognized in the consolidated statement of profit or loss	(3,621)	(3,059)

Previously unrecognized deferred tax on timing differences and tax losses results in deferred tax income as the Group recognizes deferred tax on timing differences and tax losses which are expected to be realized in the near future. As described below, the amount recognized in the statement of financial position is based on the Group's current business planning. The amount reported primarily consists of deferred tax assets of USD 33,934 thousand recognized in the Group's Malaysian subsidiary at December 31, 2019 (December 31, 2018: USD 34,370 thousand). The income statement includes a recognition in income in the Group's Malaysian subsidiary (2019: USD 12,994 thousand; 2018: USD 22,690 thousand) which is based on the carrying value at the reporting date, less the amount recognized in the previous year after the amount recognized in the

previous year had been reduced by the assets utilized in the current year (2019: USD 13,447 thousand; 2018: USD 19,359 thousand).

Effects from tax-free income mainly relate to various tax exempted items of X-FAB Sarawak for example interest income, exchange rate gains and gains from fixed asset sales.

Currency effects mainly relate to the effect of changes in exchange rates on tax carrying amounts denominated in euros in 2018 and 2019.

The deferred tax assets and liabilities arise from temporary differences and unused tax losses as follows:

in thousands of U.S. dollars	2019	2018
Deferred tax assets - unrecognized amounts		
On unused tax losses	174,398	165,662
On temporary differences		
Property, plant, and equipment/capital allowances	328,707	338,513
Other temporary differences	4,481	4,971
Total unrecognized deferred tax assets	507,586	509,146
Deferred tax assets - recognized amounts		
On unused tax losses	15,324	7,153
On temporary differences		
Property, plant, and equipment/capital allowances	26,978	29,960
Other temporary differences	(8,380)	(2,878)
Total recognized deferred tax assets	33,922	34,234

X-FAB SE Group recognizes deferred tax assets resulting from temporary differences and from unused tax losses which exceed the deferred tax liabilities only to the extent that, on the basis of the Group's business planning, the realization of these assets is assessed as probable. This assessment involves a review by management of profits and losses expected in the business plan and limiting recognition of the future tax benefits to take account of potential variances against the business plan. Accordingly, recognized and

unrecognized deferred tax assets are subject to estimation uncertainty and there is a significant risk that the carrying amounts will require adjustment in subsequent periods. The estimates are, in particular, subject to the estimation uncertainties inherent in business planning which affect the likely utilization of unused tax losses and subject to potential changes in exchange rates which affect the size of timing differences.

Unrecognized temporary differences on property, plant, and equipment of USD 328,770 thousand (December 31, 2018: USD 338,513 thousand) include deferred tax of USD 1,137,293 thousand (December 31, 2018: USD 1,134,589 thousand) of investment allowances, capital allowances, and other timing differences in Malaysia which can be used to offset future taxable income in the Group's Malaysia subsidiary.

More specifically for the assessment of future available taxable profit with respect to X-FAB Malaysia a risk-adjusted profits approach was applied to the forecasts included in the Group's business planning. This method was applied to reflect the risk that actual taxable profits will fall short of the expectations. The Board has determined that adjusting the expected future taxable profits for this component by using a risk factor is appropriate considering the inherent risk in the semiconductor market and the specific exchange rate volatility risks which affect the assessment. In addition, the Board has determined that taxable income as from 2023 does not meet the "probable" threshold as required under IFRS standards and is not taken into account for the determination of the amount of deferred tax assets to be recognized.

In particular, tax legislation in the jurisdictions in which the Group operates provides for the full or partial cancellation of unused tax losses on the occurrence of significant changes in the direct or indirect equity ownership of the taxable entity. Accordingly, there is a risk that recognized and unrecognized deferred tax

assets may not be realized should such transactions occur in the future.

X-FAB SE and its subsidiaries have unused corporation tax losses as follows:

in thousands of U.S. dollars	2019	2018
Belgian tax loss carry forward (thousands of USD)	-	-
German corporation tax loss carry forward	174,223	156,035
German trade tax loss carry forward	194,068	178,820
US federal tax loss carry forward	131,503	110,647
US state tax loss carry forward (thousands of USD)	1,912	-
Malaysian tax loss carry forward	367,467	363,427
French tax loss carry forward	121,328	54,553

The Group's French and German tax losses can be carried forward indefinitely, whereby in France and Germany there are restrictions on the amounts that can be utilized in any specific year. US federal tax losses for years prior to 2018 expire, if unused, after a period of 20 years, with the Group's first tax losses expiring in 2020. The Group estimates that US tax losses of USD 4,865 thousand will expire in the year 2020 unless utilized. Unabsorbed Malaysian business losses expire after a period of seven years. The unused tax losses changed as a result of tax losses in the year, tax losses offset in the year, and, in addition, changes in currency exchange rates. Insignificant changes resulted from changes in estimates between the dates of preparation of the previous year's consolidated financial statements and the finalization of the tax returns and tax assessments of individual entities.

Significant deferred tax balances arise in respect of tax losses carried forward and on timing differences on property, plant, and equipment. A summary of the movements is presented in the table below. Deferred tax balances on other balance sheet positions are presented on a combined basis for this purpose:

in thousands of U.S. dollars	Tax losses carried forward	Property, plant, and equipment	Other temporary differences	Total
Balance at January 1, 2018	9,452	27,530	(4,023)	32,959
Recognized in profit and loss	(2,299)	2,431	1,143	1,275
Recognized in OCI	-	-	-	-
Balance at December 31, 2018	7,153	29,961	(2,880)	34,234
Set-off of tax	-	103	(103)	-
Net balance at December 31, 2018	7,153	30,064	(2,983)	34,234
Balance at January 1, 2019	7,153	29,961	(2,880)	34,234
Recognized in profit and loss	8,171	(2,983)	(5,500)	(312)
Recognized in OCI	-	-	-	-
Balance at December 31, 2019	15,324	26,978	(8,380)	33,922
Set-off of tax	-	2,206	(2,206)	-
Net balance at December 31, 2019	15,324	29,184	(10,586)	33,922

Changes in recognized deferred tax assets resulted in a deferred tax expense of USD 312 thousand (2018: income of USD 1,275 thousand). The decrease in deferred tax assets recognized in 2019 and 2018 on property, plant, and equipment is due to recognition of previously unrecognized deferred tax assets in Malaysia and other timing differences for the period because it is probable based on achieved and projected operating results that sufficient taxable income will be available against which the Malaysian subsidiary can use the benefits therefrom.

6.14 Earnings per share

The earnings per share is calculated by dividing the profit for the period attributable to the ordinary shareholders (as reported in the statement of profit or loss and other comprehensive income) by the weighted average number of shares in issue during the period.

The weighted average number of ordinary shares is identical to the number of ordinary shares in issue during the years ended December 31, 2019 and December 31, 2018.

No instruments with a potential diluting effect on shareholder's equity have been in issue during the years ended December 31, 2019 and December 31, 2018. Accordingly, there is no potential dilution of the profit attributable to equity shareholders and no difference between basic and diluted earnings per share.

As described in note 4.20, there has been a change in the method of calculating the expenses recorded for leased assets which affects the amounts reported for cost of sales, research and development costs, and, accordingly, amounts for EBIT, EBITDA and net income.

7 Notes to the statement of financial position

7.1 Property, plant, equipment, and investment properties

in thousands of U.S. dollars	Land	Buildings	Technical machinery and equipment	Factory and office equipment	Assets under construction	Total
Net book value January 1, 2019	13,834	39,957	228,427	5,944	57,464	345,626
Accumulated historical cost January 1, 2019	13,928	103,263	953,521	24,556	58,858	1,154,126
Right of use assets recognized on initial application of IFRS 16	-	-	21,786	-	-	21,786
Additions	93	812	28,144	1,579	37,161	89,575
Disposals	-	-	(3,533)	(483)	(1,210)	(5,226)
Reclassifications	266	3,512	49,149	892	(54,264)	(445)
Effect of changes in exchange rates	-	-	-	104	-	104
Accumulated historical cost December 31, 2019	14,287	107,587	1,049,067	26,648	40,545	1,238,134
Accumulated depreciation January 1, 2019	(94)	(63,306)	(725,094)	(18,612)	(1,394)	(808,500)
Additions	(28)	(3,081)	(59,300)	(2,769)	-	(65,178)
Disposals	-	-	3,201	457	704	4,362
Reclassifications	-	-	-	-	-	-
Effect of changes in exchange rates	-	-	-	(63)	-	(63)
Accumulated depreciation December 31, 2019	(122)	(66,387)	(781,193)	(20,987)	(690)	(869,379)
Net book value December 31, 2019	14,165	41,200	267,874	5,661	39,855	368,755
Net book value January 1, 2018	13,659	41,404	202,309	5,849	52,635	315,856
Accumulated historical cost January 1, 2018	13,734	102,908	890,771	23,248	53,467	1,084,128
Additions	181	2,105	29,720	1,538	55,428	88,972
Disposals	-	(1,718)	(12,842)	(1,245)	(349)	(16,154)
Reclassifications	35	191	47,959	1,143	(49,582)	(254)
Effect of changes in exchange rates	(22)	(223)	(2,087)	(128)	(106)	(2,566)
Changes in consolidation						
Accumulated historical cost December 31, 2018	13,928	103,263	953,521	24,556	58,858	1,154,126
Accumulated depreciation January 1, 2018	(75)	(61,504)	(688,462)	(17,399)	(832)	(768,272)
Additions	(18)	(2,886)	(49,725)	(2,548)	(704)	(55,881)
Disposals	-	1,031	12,775	1,242	-	15,048
Reclassifications	-	53	(142)	-	142	53
Effect of changes in exchange rates	(1)	0	460	93	-	552
Accumulated depreciation December 31, 2018	(94)	(63,306)	(725,094)	(18,612)	(1,394)	(808,500)
Net book value December 31, 2018	13,834	39,957	228,427	5,944	57,464	345,626

Property, plant, and equipment

Additions in technical machinery and equipment and additions in assets under construction mainly refer to capital investments in X-FAB Dresden (USD 13 million), X-FAB Texas (USD 5 million), X-FAB Sarawak (USD 26 million), and X-FAB France (USD 12 million). Assets under construction mainly include investments in technical machinery. Additions in property, plant, and equipment resulted in cash payments in 2019 of USD 78,942 thousand (2018: USD 84,423 thousand). Refer to the statement of cash flows.

The Group received investment grants related to the acquisition of qualifying assets totaling USD 9,609 thousand (2018: USD 357 thousand).

The Group performed impairment tests at the end of the financial year 2019 to examine whether the carrying values of the Group's property, plant, and equipment are impaired. These tests were performed as the carrying amount of the net assets of the Group is more than the Group's market capitalization for the major part of 2019, which is an indicator that there has potentially been an impairment of some or all of the Group's assets. The recoverable amounts were estimated based on the value in use of the property, plant and equipment. As individual items of equipment do not generate individual cash flows, each foundry of the Group was defined as a cash-generating unit (CGU), and the value in use of the assets used by each CGU was determined at a collective level for each CGU. The recoverable amount of each CGU was estimated by calculating the present value of the future cash flows of the CGU based on management's most recent business planning forecasts. The recoverable amount of each of the Group's CGUs was estimated to be higher than the carrying amount of the assets used by the respective CGUs and, accordingly, no impairment was required.

For impairment testing purposes each foundry of the Group was defined as a cash-generating unit. The impairment tests showed that the value in use of the Group's property, plant, and equipment exceeds the carrying values of the assets recorded in the consolidated financial statements, and accordingly no impairment write-down was required, and, in addition, no other impairment charges against the carrying amounts of property, plant, and equipment were recorded in the financial year.

In the previous year impairment charges of USD 704 thousand were recorded against the carrying values of assets under construction and reported within cost of sales.

Accumulated historical costs have been reduced by investment grants received of USD 133,747 thousand (December 31, 2018: USD 124,330 thousand) and accumulated depreciation has been reduced by USD 115,910 thousand (December 31, 2018: USD 112,335 thousand).

At December 31, 2019 property, plant, and equipment with a book value of USD 63 million (December 31, 2018: USD 57 million) had been provided as collateral security to third-party lenders. The carrying values of technical machinery and equipment includes USD 30.8 million which are not owned by the Group but which are held under leasing arrangements are disclosed in note 11.

Investment properties

Investment properties consist of properties let to third parties by X-FAB GmbH, X-FAB Dresden, X-FAB Texas, and X-FAB France. The lease arrangements, the majority of which expire at various dates until 2022, continue after expiry unless cancelled by either party within notice periods of between one month and six months.

Investment properties are accounted for at purchase cost less straight-line depreciation. The book and fair values of these properties at the reporting date were as follows:

in thousands of U.S. dollars	2019	2018
Net book value, beginning of period	9,414	9,033
Additions	16	679
Depreciation	(734)	(493)
Disposals	-	-
Reclassifications	431	195
Net book value, end of period	9,127	9,414
Accumulated cost	33,253	32,806
Accumulated depreciation	(24,126)	(23,392)
Fair value	24,023	25,208

Properties are reclassified between the land and buildings and investment properties classifications when there is a change in the use of the property (for example, when a property previously used by the Group is let to third parties or the Group uses a property previously let to third parties).

Additions to investment properties represents work capitalized on the Group's existing investment properties.

The fair values of the investment properties relate to properties in Germany (USD 6,823 thousand; December 31, 2018: 7,931 thousand), the USA (USD 2,355 thousand; December 31, 2018: 2,432 thousand), and France (USD 14,845 thousand; December 31, 2018: 14,845 thousand). The fair value measurements of the investment properties have been categorized as a Level 3 fair value based on the inputs to the valuation techniques used. In the US and in France the valuations were

performed by independent third-party experts with the appropriate professional qualifications and the necessary expertise in the location and category of property. In Germany they are performed by the management of X-FAB SE Group and updated annually, calculated on the basis of discounted future cash flows, and discounting future rents at a rate of 1.5% (December 31, 2018: 1.5%). The valuation model takes into account the rent per square meter, expected rental growth rates, other costs, and the maturity of the contracts.

No impairment charges were recorded against investment properties in 2019 or 2018.

The following table sets out a maturity analysis of lease payments which will be received in respect of investment properties, showing the undiscounted lease payments to be received after the reporting date.

in thousands of U.S. dollars	2019	2018
2019		5,863
2020	6,022	5,731
2021	6,900	5,400
2022	4,356	324
2023	1,133	321
2024	1,133	313
Total	19,544	17,952

7.2 Intangible assets

The movements on intangible assets were as follows:

in thousands of U.S. dollars	Licenses	Payments on account	Total
Net book value January 1, 2019	7,091	1,931	9,022
Accumulated historical cost January 1, 2019	85,461	1,931	87,392
Additions	1,189	760	1,949
Disposals	(17,667)	-	(17,667)
Reclassifications	378	(363)	15
Effect of changes in exchange rates	-	-	-
Accumulated historical cost December 31, 2019	69,361	2,328	71,689
Accumulated amortization January 1, 2019	(78,370)	-	(78,370)
Additions	(2,625)	-	(2,625)
Disposals	17,667	-	17,667
Effect of changes in exchange rates	2	-	2
Accumulated amortization December 31, 2019	(63,326)	-	(63,326)
Net book value December 31, 2019	6,035	2,328	8,363
Net book value January 1, 2018	5,634	1,426	7,060
Accumulated historical cost January 1, 2018	82,769	1,426	84,195
Additions	1,736	2,521	4,257
Disposals	(1,060)	-	(1,060)
Reclassifications	2,024	(2,016)	8
Effect of changes in exchange rates	(8)	-	(8)
Accumulated historical cost December 31, 2018	85,461	1,931	87,392
Accumulated amortization January 1, 2018	(77,135)	-	(77,135)
Additions	(2,298)	-	(2,298)
Disposals	1,060	-	1,060
Effect of changes in exchange rates	3	-	3
Accumulated amortization December 31, 2018	(78,370)	-	(78,370)
Net book value December 31, 2018	7,091	1,931	9,022

Disposals refer to licenses that have been fully depreciated and from which the Group obtains no further benefit.

Intangible assets in the statement of financial position do not include any capitalized costs of internally generated assets. Payments on account refer to advance and milestone payments made for the acquisition of software licenses and the customization of such software in a project not yet fully completed. Refer to note 4.9.

No impairment against the carrying values of payments on account was recorded in 2019 or 2018.

7.3 Inventories

Inventories comprise the following:

in thousands of U.S. dollars	2019	2018
Materials and supplies	110,222	93,869
Work in progress	44,272	50,794
Finished goods	7,943	9,284
Merchandise	6	-
Write-downs	(7,794)	(6,797)
Total	154,649	147,150

The increase in inventories in 2019 compared to 2018 has been substantially driven by the change in the stock of raw material (raw wafers) that have been ordered to align with the increase of new products.

Changes in work in progress and finished goods totaling USD 7,568 thousand were included in cost of sales in 2019 (2018: USD 13,876 thousand). Write-downs are recorded against inventories and recognized as an expense in cost of sales in the period of USD 1,875 thousand (2018: USD 1,086 thousand). There have not been any reversals of write-downs. Inventories wholly represent amounts which are expected to be realized within 12 months.

7.4 Trade and other receivables

Trade receivables and other receivables comprise the following:

in thousands of U.S. dollars	2019	2018
Trade accounts receivable	35,066	50,560
Amounts due from related party entities	21,736	22,380
Allowances	(1,165)	(1,562)
Total	55,637	71,378

The decrease in trade receivables in 2019 compared to 2018 corresponds with the decrease in revenue.

Trade receivables are generally on 30 to 90-day terms and are non-interest bearing. They are classified as financial assets at amortized cost for financial reporting purposes. Under consideration of allowances made, the fair values of trade receivables approximate their carrying amount. The amounts due from related parties are in respect of trade accounts receivable balances.

As at December 31, the aging analysis of trade accounts receivables (third parties, net of allowances) is as follows:

in thousands of U.S. dollars	2019	2018
Neither past due nor impaired	25,044	33,129
Past due 1-30 days	7,759	13,256
Past due 31-60 days	535	1,459
Past due 61-360 days	563	1,154
Past due > 360 days	-	-
Total	33,901	48,998

The Group measures the expected credit losses of trade receivables by using an allowance matrix to measure the expected losses on trade receivable balances, including those with related parties. The allowances are based on the number of days each balance is overdue. The assessment of expected losses on trade receivable balances which are not impaired is based on past experience of credit losses, which the Group considers to be a reasonable approximation of the losses which can be expected in future periods since there are no indications that there will be significant changes in the industry going forward. An analysis of receivables by geographic region or by type of customer is not made since X-FAB mainly deals with global customers and hence there is no significant difference in risks between the geographic regions where X-FAB is active or the type of customers served by X-FAB. The amount of trade receivables due from related parties is disclosed separately from trade receivables in the table above and in the related party disclosures in note 11 below.

In addition, X-FAB recorded several additional allowances on individual case-by-case assessments for credit-impaired balances.

Trade receivables due from related parties in 2019 and 2018 include amounts that were past due more than 360 days from one related party, a customer of X-FAB Sarawak, for which X-FAB has determined that the ultimate collection of amounts outstanding of USD 1,409 thousand (2018: USD 1,409 thousand) is deemed probable based on an agreed payment plan. Accordingly, no specific write-down has been recorded against this balance. The payment plan requires the customer to settle the outstanding amount in equal installments over a period continuing through 2022.

The following tables provide information on the exposure to credit risk and the loss allowances made for balances which are not credit impaired as at December 31, 2019 and December 31, 2018:

December 31, 2019			
in thousands of U.S. dollars	Weighted average loss rate	Gross carrying amount	Loss allowance
Neither past due nor impaired	0.05%	43,703	-22
Past due 1-30 days	0.05%	9,911	-5
Past due 31-60 days	1.00%	1,062	-11
Past due 61-90 days	2.50%	286	-7
More than 90 days past due (less credit impaired)	6.50%	675	-44
Total		55,637	(89)

December 31, 2018			
in thousands of U.S. dollars	Weighted average loss rate	Gross carrying amount	Loss allowance
Neither past due nor impaired	0.05%	49,243	-25
Past due 1-30 days	0.05%	18,050	-9
Past due 31-60 days	1.00%	1,329	-13
Past due 61-90 days	2.50%	678	-17
More than 90 days past due (less credit impaired)	6.50%	2,078	-135
Total		71,378	(199)

in thousands of U.S. dollars	2019	2018
Balance of January 1	(1,562)	(1,347)
Adjustment on initial application of IFRS 9 at January 1	-	(358)
Impairment loss recognized	(11)	(15)
Use of allowance	284	-
Reversal of allowance	12	-
Net remeasurement of loss allowance	112	158
Balance of December 31	(1,165)	(1,562)

There are no balances which were written off during the period and which continue to be the subject of collection processes.

7.5 Other assets

Other assets comprise the following:

in thousands of U.S. dollars	2019	2018
Other assets	33,471	25,630
Other non-current assets	27,568	20,594
Total	61,039	46,224

Other non-current assets in 2019 contain USD 27,460 thousand research and development tax credits and competitiveness and employment tax credits attributable to X-FAB France (December 31, 2018: USD 20,450 thousand). These tax credits can be offset against income tax payable by X-FAB France or will be paid to X-FAB France within three years if there is no income tax to be paid. In 2019 and 2018, the increase in the non-current grant receivable by X-FAB France has been presented as a reduction of cost of sales and research and development expenses consistent with the Group's presentation of the subsidized expenses for the purposes of the consolidated financial statements.

Current other assets comprise the following:

in thousands of U.S. dollars	2019	2018
Taxes (other)	6,511	7,743
Prepaid expenses	11,019	8,012
R&D grants receivable	10,884	5,478
Investment grants and subsidies receivable	144	61
Deposits	118	704
Receivables from energy surcharges	4,646	2,981
Other	149	766
Total	33,471	25,745

The increase in prepaid expenses in 2019 relates to prepayments made for raw wafers in the amount of USD 9,000 thousand (December 31, 2018: USD 6,000 thousand). Research and development grants receivable in 2019 include USD 9,600 thousand (December 31, 2018: USD 4,800 thousand) of grants receivable attributable to X-FAB Sarawak. Refer to note 13.1.

The deposits mainly represent security deposits provided as collateral security and are classified as current assets as they are either in connection with contractual arrangements which may be cancelled at short notice or are expected to be released within 12 months on other grounds.

7.6 Cash and cash equivalents

Cash and cash equivalents comprise the following:

in thousands of U.S. dollars	2019	2018
Cash and bank balances	166,978	238,944
Cash pooling balances	3,314	1,025
Term deposits	2,919	2,800
Total	173,211	242,769

Term deposits and some cash at bank balances earn interest at floating rates based on daily bank deposit rates. The fair values of cash and short-term deposits are identical to the carrying amounts.

7.7 Equity

Share capital

X-FAB Silicon Foundries SE had 130,781,669 fully paid-in ordinary shares in issue at December 31, 2019 and December 31, 2018. Each share carries one vote at the Company's general meetings. There are no unissued shares authorized for issue.

Share premium

The share premium of X-FAB Silicon Foundries SE represents the excess of paid-in capital for shares at the time of their issue over the fractional value of the shares.

Retained earnings

Retained earnings represent the historical balance of cumulative losses of the Group together with the cumulated balance of the remeasurement of defined benefit plans attributable to owners of the parent. The negative retained earnings primarily result from the Group's acquisition of X-FAB Sarawak Sdn. Bhd. under a "reverse acquisition transaction" in 2006

Cumulative translation adjustment

The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign operations that have functional currencies other than USD.

Treasury shares

At December 31, 2019 the Group held 149,748 treasury shares (after the share split) of X-FAB Silicon Foundries SE held by its fully owned subsidiary X-FAB GmbH. Based on the purchase price of EUR 11.25 per share before the share split, the treasury shares reduced the equity capital of the parent company by USD 770 thousand (December 31, 2018: USD 770 thousand).

Share-based payment arrangements

The Group had no share-based payment arrangements and no share option programs during the years ended December 31, 2019 or December 31, 2018.

Authorization to acquire treasury shares

In accordance with the Belgian Companies and Associations Code, the Articles of Association permit the Company to acquire, on or outside the stock market, its own shares, profit-sharing certificates or associated certificates by resolution approved by the shareholders' meeting by a majority of at least 80% of the votes cast where at least 50% of the share capital and at least 50% of the profit certificates, if any, are present or represented. Prior approval by the shareholders is not required if the Company purchases the shares in order to offer them to the Company's employees.

On March 16, 2017, an extraordinary shareholders' meeting authorized the Board of Directors to purchase up to 20% of the outstanding shares, for a price not lower than 10% below the lowest closing price in the last 30 trading days preceding the transaction and not more than 5% above the highest closing price during the last 30 trading days preceding the transaction. This authorization is valid for five years from March 16, 2017.

The above authorization is also valid if the acquisition is made by one of the subsidiaries directly controlled by the Company, as set out in Article 5 SE Regulation juncto Article 7:221 of the Belgian Companies and Associations Code.

The Board of Directors is also authorized to acquire for the Company's account the Company's own shares, profit-sharing certificates, or associated certificates if such acquisition is necessary to

prevent any serious and imminent harm to the Company. This authorization is valid for three years as from the date of the publication of the authorization in the Annexes to the Belgian State Gazette (Belgisch Staatsblad/Moniteur belge).

The Board of Directors is authorized to divest all or part of the shares, profit-sharing certificates, or associated certificates at a price it determines, on or outside the stock market or in the framework of its remuneration policy to employees, directors, or consultants of the Company or to prevent any serious and imminent harm to the Company. This authorization is valid without any restriction in time, except when the divestment is made to prevent serious and imminent harm to the Company, in which case the authorization is only valid for three years as from the date of the publication of the authorization in the Annexes to the Belgian State Gazette (Belgisch Staatsblad/Moniteur belge). The authorization covers the divestment of the shares, profit-sharing certificates, or associated certificates by a direct subsidiary of the Company, as set out in Article 5 SE Regulation juncto Article 7:221 of the Belgian Companies and Associations Code.

The shares, profit-sharing certificates, or associated certificates can only be acquired with funds that would otherwise be available for distribution as dividend. The total nominal value or fractional value of the shares, profit-sharing certificates or associated certificates held by the Company can at no time be more than 20% of the share capital. Voting rights attached to shares held by the Company as treasury shares are suspended.

7.8 Dividends

No dividends were resolved or paid in the years 2019 or 2018.

Under Belgian company law, the shareholders decide on the distribution of profits at the annual shareholders' meeting, based on the latest audited statutory accounts of the Company. Dividends may be paid either in cash or in kind. However, shareholders may not declare a dividend if the Company has not first reserved at least 5% of its profits for the financial year until

such reserve has reached an amount equal to 10% of its share capital (the "Legal Reserve") or if, following any such dividend, the level of the net assets adjusted for the unamortized balance of the incorporation costs and capitalized research and development costs of the Company falls below the amount of the Company's paid-in-capital and of its non-distributable reserves. The Board of Directors may pay an interim dividend, provided certain conditions set forth in Belgian company law are met.

7.9 Non-controlling interests

The non-controlling interests for the period and the accumulated non-controlling interests represent the 5.1% (December 31, 2018: 5.1%) non-controlling shareholders' interests in the subsidiary GVG. GVG is a property management company responsible for the administration of certain of the Group's properties in Dresden, Germany.

GVG's net profit for the financial year 2019 amounted to USD 641 thousand (2018 net profit: USD 523 thousand). GVG had total assets amounting to USD 10,155 thousand at December 31, 2018 (December 31, 2018: USD 10,302 thousand), liabilities of USD 6,468 thousand (December 31, 2018: USD 7,244 thousand), and equity of USD 3,687 thousand (December 31, 2018: USD 3,058 thousand). The currency translation effect of the retranslation of non-controlling interests in GVG is not material to the movements on other comprehensive income or the statement of changes in equity.

7.10 Current and non-current loans and borrowings

The Group has unused credit lines available from bank loans as follows:

in thousands of U.S. dollars	2019	2018
Unused credit lines		
Unused credit lines denominated in EUR - fixed rates	4,477	4,587
Interest rates: 4.43%		
Unused credit lines denominated in EUR - variable rates	5,596	5,733
Interest rates: EURIBOR +2.47%/ EURIBOR +3.0%		

Carrying amounts and fair values

The carrying amounts of the Group's loans and borrowings at December 31 are shown in the following table:

in thousands of U.S. dollars	2019	2018
Bank loans and overdrafts		
Fixed interest bank loans denominated in EUR	47,681	50,009
Maturity: 2020-2024		
Interest rates: 1.4%–2.7%		
Repayments in monthly or quarterly installments		
Variable interest bank loans denominated in EUR	9,719	18,926
Maturity: 2019-2021		
Interest rates: EURIBOR + 1.58%-EURIBOR + 2%		
Repayments in quarterly installments		
Loan State Financial Secretary of Sarawak denominated in USD	31,804	30,523
Maturity: 2030		
Interest free and 2.0% preference dividend		
Repayment at maturity date		
Leasing arrangements		
Leasing liabilities denominated in EUR	3,536	4,501
Maturity: 2020-2025		
Interest rates: 0.6-4.84%		
Repayment in monthly installments		
Liabilities for leases recognized on application of IFRS 16	26,307	-
(as per January 1, 2019: USD 21,786 thousand)		
denominated in USD, EUR and MYR		
Maturity: 2020-2034		
Interest rates: 0.02-4.82%		
Repayment in monthly installments		
Total	119,047	103,959
Current loans and borrowings	26,658	31,632
Non-current loans and borrowings	92,389	72,327

The Group's exchange rate gains and losses include exchange rate gains of USD 1,510 thousand resulting from the translation of euro-denominated loans (2018: exchange rate gains of USD 3,778 thousand).

The fair value of loans and borrowings is USD 121,972 thousand at the reporting date (2018: USD 103,341 thousand).

Taking into account the effect of interest rate swaps, approximately 93% of the Group's borrowings (excluding financial leases and including the related party loan) are at a fixed rate of interest (December 31, 2018: 81%). The fair value disclosures for loans and borrowings exclude the effects of interest rate swaps, which are disclosed separately. Refer to note 10.

Bank loans and overdrafts of USD 57,394 thousand (2018: USD 62,846 thousand) are secured by charges on plant and machinery and land (see note 7.1).

The X-FAB Sarawak redeemable preference shares represent the discounted carrying amount of a USD 50,000 thousand debt investment held by Sarawak Technologies Holding Sdn. Bhd. which is due for repayment in 2030. The redeemable preference shares confer the holder the right to receive a cumulative preference dividend of 2% to the extent that X-FAB Sarawak has sufficient net profits after taxation available for distribution for the relevant financial year including retained profits and distributable reserves brought forward. The cumulative preference dividend shall be paid before and in priority to any payment of dividends on ordinary shares to other shareholders of X-FAB Sarawak. The total amount accrued for preference dividends amounts to USD 0 thousand at December 31, 2019 (December 31, 2018: none). Cumulative preference dividends of USD 1,000 thousand were paid in 2019 (2018: USD 1,000 thousand). The yearly accrued preference dividend is included within interest expenses. The charge to interest expense amounted to USD 1,000 thousand in 2019 and 2018.

The USD 50,000 thousand due for repayment in 2030 is carried at a discounted value, discounted at an interest rate of 4.12%. The discount rate was calculated at the date of the initial recognition of the liability, taking into account a weighted average risk-free rate of United States treasury bills with a corresponding maturity and an additional spread to reflect the risk premium that market participants would require based on an average credit spread for BBB-rated debt instruments with a corresponding maturity. The charge to interest expense on this debt from the unwinding of the liability amounted to USD 1,282 thousand in 2019 (2018: USD 1,229 thousand).

The amount included in interest expense for the preference shares is USD 2,282 thousand (2018: USD 2,229 thousand).

Details of finance leases and the impact of the transition to IFRS 16 on the consolidated financial statements are provided in note 11.

Contractual maturities

The contractual maturities of the Group's non-derivative financial liabilities (including lease liabilities) at December 31, 2019 and 2018 are shown in the table below. The amounts presented in the table are gross and undiscounted:

in thousands of U.S. dollars	2019	2018
2019		37,762
2020	31,746	23,434
2021	21,904	12,240
2022	9,426	-
2023-2034	74,158	50,000
Total	137,234	123,436

The Group is exposed to a liquidity risk in that the maturity of bank loan agreements, which are presented based on the contractual payment obligations, could be brought forward should the Group fail to comply with its contractual obligations under the bank loan agreements.

The following table provides a reconciliation of the movements in liabilities to the cash flows arising from financing activities for the year 2019:

in thousands of U.S. dollars	Liabilities		Derivatives	
	Loans and borrowings	Lease liability	Interest rate swaps and forward exchange contracts - assets	Interest rate swaps and forward exchange contracts - liabilities
Balance at December 31, 2018	99,458	4,501	-	317
Changes from financing cash flows				
Proceeds from loans and borrowings	24,706			
Repayment of loans and borrowings	(34,667)			
Repayment of loans and borrowings from related parties				
Receipts from sale and leaseback arrangements		1,187		
Payments of lease liabilities		(5,485)		
Interest paid	(1,347)	(204)		
Gross proceeds from capital increase				
Direct cost related to capital increase				
Payment of preference dividend	(1,000)			
Distribution to non-controlling interests				
Receipt of investment government grants and subsidies				
Total changes from financing cash flows	(12,308)	(4,502)	-	-
Other changes				
Effect of changes in foreign exchange rates	(1,905)	(76)		
Changes in fair value			-	(317)
Liability related				
Interest expenses	3,959	204		
Liabilities for leases recognized on application of IFRS 16		29,716		
Equity related				
Total liability related other changes	3,959	29,920	-	-
Total equity related other changes				
Balance at December 31, 2019	89,204	29,843	-	-

	Other	Equity			NCI	Total
		Share capital	Share premium	Retained earnings		
	732	432,745	348,709	(84,783)	365	813,711
						24,706
						(34,667)
						-
						1,187
						(5,485)
						(1,551)
						-
						-
						(1,000)
					(12)	(12)
	9,609					9,609
	9,609	-	-	-	(12)	(7,213)
						(1,981)
						(317)
						4,163
						29,716
				(49,054)	25	(49,029)
	-	-	-	-	-	31,581
			-	(49,054)	25	(49,029)
	10,341	432,745	348,709	(133,837)	378	787,069

The following table provides a reconciliation of the movements in liabilities to the cash flows arising from financing activities for year 2018:

in thousands of U.S. dollars	Liabilities		Derivatives	
	Loans and borrowings	Lease liability	Interest rate swaps and forward exchange contracts - assets	Interest rate swaps and forward exchange contracts - liabilities
Balance at December 31, 2017	136,694	7,284	(4,096)	536
Changes from financing cash flows				
Proceeds from loans and borrowings				
Repayment of loans and borrowings	(34,703)			
Repayment of loans and borrowings from related parties				
Receipts from finance leases				
Payments of lease installments		(2,561)		
Interest paid	(2,080)	(115)		
Gross proceeds from capital increase				
Direct cost related to capital increase				
Payment of preference dividend	(1,000)			
Distribution to non-controlling interests				
Receipt of investment government grants and subsidies				
Total changes from financing cash flows	(37,783)	(2,676)	-	-
Other changes				
Effect of changes in foreign exchange rates	(3,556)	(222)		
Changes in fair value			4,096	(219)
Liability related				
Interest expenses	4,103	115		
Equity related				
Total liability related other changes	4,103	115	-	-
Total equity related other changes				
Balance at December 31, 2018	99,458	4,501	-	317

	Other	Equity			NCI	Total
		Share capital	Share premium	Retained earnings		
	375	432,745	348,709	(106,814)	357	831,235
						-
						(34,703)
						-
						-
						(2,561)
						(2,195)
						-
						-
						(1,000)
					(11)	(11)
	357					357
	357	-	-	-	(11)	(40,113)
						(3,778)
						3,877
						4,218
				22,031	19	22,050
	-	-	-	-	-	4,317
			-	22,031	19	22,050
	732	432,745	348,709	(84,783)	365	813,711

7.11 Other non-current liabilities

Other non-current liabilities mainly comprise defined pension obligations and deferred rental income.

Other non-current liabilities include an amount of USD 7,342 thousand at December 31, 2019 (December 31, 2018: USD 7,360 thousand) representing the net defined benefit obligations under a long-service retirement lump-sum payment scheme at the Group's subsidiary X-FAB France. Additionally, USD 259 thousand (December 31, 2018: USD 353 thousand) of defined benefit obligations relating to this plan were recorded as other current liabilities. The net defined benefit obligation consists of defined benefit obligations under the scheme of USD 11,409 thousand (December 31, 2018: USD 11,325 thousand) less plan assets recorded at their fair values of USD 3,808 thousand (December 31, 2018: USD 3,612 thousand). Under this scheme, X-FAB France awards its employees a lump-sum payment on reaching retirement age of 65 (for management employees)

and 62 (for other employees). The payment is dependent on the final salary of the employee and the length of time the employee has been employed by X-FAB France. Employees are not required to contribute to the plan. The liability recognized for the future defined benefit obligation under this scheme is presented net of the funding plan assets which are "ring fenced" to meet obligations under the scheme. The plan assets at December 31, 2019 consist of investments in a fund that is managed by a financial institution of which the underlying assets relate to long-term bonds with capital guarantees of USD 1,827 thousand at December 31, 2019 (December 31, 2018: USD 1,829 thousand) and equity savings plans with a value of USD 1,980 thousand at December 31, 2019 (December 31, 2018: USD 1,782 thousand). Accordingly, there are risks typical of such defined benefit obligations, i.e. actuarial risks associated with the uncertainties of the estimated obligations under the scheme and with the anticipated performance of the investment assets held to offset the obligations under the scheme.

in thousands of U.S. dollars	DBO	Fair value of plan assets	Net defined benefit liability
January 1, 2019	11,325	(3,612)	7,713
Included in profit or loss:			
Current service cost	576	-	576
Currency effects from conversion into USD	(272)	87	(185)
Included in OCI:			
Return on plan assets	-	(283)	(283)
Actuarial losses	770	-	770
Other:			
Contributions paid by the employer	-	-	-
Benefits paid	(990)	-	(990)
December 31, 2019	11,409	(3,808)	7,601
January 1, 2018	12,270	(3,948)	8,322
Included in profit or loss:			
Current service cost	584	-	584
Past service credit	(1,342)	-	(1,342)
Currency effects from conversion into USD	(520)	166	(354)
Included in OCI:			
Return on plan assets	-	170	170
Actuarial losses	333	-	333
Other:			
Contributions paid by the employer	-	-	-
Benefits paid	-	-	-
December 31, 2018	11,325	(3,612)	7,713

The Group expects to pay contributions of USD 259 thousand to the funding plan in 2020.

The primary assumptions made in calculating the defined benefit obligation were as follows:

in thousands of U.S. dollars	2019	2018
Discount rate	0.70%	1.50%
Employee turnover	5.00%	5.00%
Social security costs	47.00%	47.00%

The discount rate used is calculated by reference to marked yields on high quality corporate bonds. Future salary growth is assumed to be 0.5% lower than inflation (December 31, 2018: 0.5% lower). Assumptions regarding future mortality have been based on published statistics and mortality tables.

Reasonably possible changes at the reporting date to one of the actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below:

in thousands of U.S. dollars	Increase at December 31, 2019	Decrease at December 31, 2019	Increase at December 31, 2018	Decrease at December 31, 2018
Discount rate (+0.25% movement)	-	211	-	206
Future salary growth (+0.25% movement)	214	-	219	-

The defined benefit obligation is not materially sensitive to a reasonable potential change in the assumed mortality rate.

7.12 Trade payables and other current liabilities

Trade payables are non-interest bearing and are normally settled on 60-day terms.

Other current liabilities comprise the following:

in thousands of U.S. dollars	2019	2018
Accrued liabilities	21,678	22,387
For invoices not yet received	20,379	20,726
Repayment of electricity cost discounts	-	10
Royalties	329	350
Sales commission	311	317
Staff association	613	549
Other	46	435
Advances received	5,410	6,495
Derivatives	-	317
Deferred income	634	1,171
Employee-related liabilities	17,117	18,725
Wages	1,743	2,239
Earned holiday entitlement, incentives	7,457	8,461
Payroll taxes	3,684	3,770
Social security costs	4,233	4,255
Other	716	44
Total	45,555	49,139

7.13 Provisions

Provisions comprise the following:

in thousands of U.S. dollars	2019	2018
Current provisions	6,622	3,206
Non-current provisions	64	86
Total	6,686	3,292

Current provisions primarily relate to warranty provisions. Warranty provisions are estimated based on the Group's experience of past claim rates and knowledge of current claims together with an assessment of rectification costs. Due to a one-off fab event an additional warranty provision of USD 3.7 million has been made in 2019.

Non-current provisions refer to anniversary bonuses for employees accounted for in accordance with IAS 19, which include estimates of future staff turnover, based on the Group's experience of staff turnover rates in recent years.

The movement on provisions during the year was as follows:

in thousands of U.S. dollars	Warranty provisions	Employee provisions	Total
January 1, 2019	3,125	165	3,290
Provided for	4,068	1,350	5,418
Utilized	(1,730)	(161)	(1,891)
Released	(102)	-	(102)
Effect of changes in exchange rates	(25)	(6)	(31)
December 31, 2019	5,336	1,348	6,684

in thousands of U.S. dollars	Warranty provisions	Employee provisions	Total
January 1, 2018	2,839	162	3,001
Provided for	1,186	136	1,322
Utilized	(536)	(96)	(632)
Released	(334)	(30)	(364)
Effect of changes in exchange rates	(30)	(7)	(37)
December 31, 2018	3,125	165	3,290

Employee provisions include a provision for litigation of X-FAB France.

8 Notes to the statement of cash flows

The change in trade payables in working capital excludes amounts of obligations for additions to property, plant, and equipment, as payments for additions to fixed assets are recorded in the statement of cash flows when payment is made.

The Group paid a preference dividend in the amount of USD 1,000 thousand (2018: USD 1,000 thousand) to Sarawak Technologies Holding Sdn. Bhd. Refer to note 7.10.

Non-cash transactions mainly include effects from exchange rate differences and increases of provisions. Regarding the exchange rate differences, refer to note 7.10.

The difference between the cash outflows for investments and the additions to property, plant, and equipment are primarily due to the level of outstanding invoices for additions recorded at the end of the financial year.

The Group entered into one sale and leaseback transaction for property, plant, and equipment in 2019 (2018: none). Cash flows include payments for capital and interest on leasing transactions under the new accounting standard for leases in 2019 and for leases under previous accounting standards for leasing in 2018. The previous year's financial statements have not been adjusted (refer to note 4.20).

9 Segment reporting

Operating segment

The Group manages its CMOS and MEMS operations as one single operating segment. Operating decisions are taken on a product and technology level by the President and Chief Executive Officer, who is assisted by the parent company's management team. Accordingly, X-FAB has identified its President and CEO as its chief operating decision maker for the purposes of defining segments in accordance with IFRS 8. No separate operating results for the CMOS and MEMS operations are used by the chief operating decision maker to manage X-FAB's operations, assess performance, or make resource allocation decisions. As a result, X-FAB has determined that its operations constitute one single segment.

Geographic concentrations

The following table shows an analysis of revenue (based on the customer's billing location) and non-current assets by geographic area for the reporting period.

Revenue by geographic area:

in thousands of U.S. dollars	2019	2018
Europe	294,493	349,380
Belgium	180,383	222,085
Germany	50,390	55,384
United Kingdom	31,396	26,070
Austria	9,365	15,398
France	7,534	9,216
Switzerland	2,054	7,311
Other	5,258	5,728
Denmark	2,804	2,479
Sweden	1,510	1,119
Finland	3,799	4,590
Asia	97,139	112,014
Singapore	19,368	29,133
China	24,084	22,854
Japan	14,954	13,816
Thailand	11,074	9,782
Malaysia	10,386	18,756
Korea	8,680	10,168
Taiwan	4,035	2,614
Hong Kong	2,418	2,225
New Zealand	1,080	1,283
Other	1,060	1,383
United States of America	112,559	123,446
Rest of the world	2,226	3,059
Total	506,417	587,899

Non-current assets by geographic area:

in thousands of U.S. dollars	2019	2018
Germany	120,699	158,909
Malaysia	174,049	162,531
United States of America	45,976	39,860
France	107,747	57,972
Total	448,471	419,272

Significant customers

The Group has two (2018: two) customers whose revenues exceeded 10% of the Group's consolidated external revenues. One of the customers with revenues exceeding 10% of external revenues is a related party (see note 12). The total revenue from these customers amounted to USD 181,059 thousand and USD 66,265 thousand respectively in 2019 (2018: USD 222,106 thousand and USD 80,795 thousand).

10 Financial instruments – fair values and risk management**Accounting classifications and fair values**

The following tables show the carrying amounts and fair values of financial assets and financial liabilities measured at fair value through profit or loss and measured at amortized cost, respectively, including their levels in the fair value hierarchy. The table does not include fair value information for financial assets and financial liabilities measured at amortized cost if the carrying amount is a reasonable approximation of fair value.

December 31, 2019					
in thousands of U.S. dollars	Carrying amount	Fair value			
		Level 1	Level 2	Level 3	Total
Financial assets measured at FVTPL					
Investments	736	736	-	-	736
Currency hedge contracts	-	-	-	-	-
Financial assets measured at amortized cost					
Trade and other receivables	55,636				
Cash and cash equivalents	173,211				
Financial liabilities measured at amortized cost					
Trade payables	(38,327)				
Bank loans, overdrafts, and finance lease	(87,243)	-	(87,175)	-	(87,175)
Related party loans	(31,804)	-	(34,797)	-	(34,797)

December 31, 2018					
Financial assets measured at FVTPL					
Investments	381	381	-	-	381
Currency hedge contracts	-	-	-	-	-
Financial assets measured at amortized cost					
Trade and other receivables	71,378				
Cash and cash equivalents	242,768				
Financial liabilities measured at FVTPL					
Interest rate swaps	(317)	-	(317)	-	(317)
Currency hedge contracts	-	-	-	-	-
Financial liabilities measured at amortized cost					
Trade payables	(45,889)				
Bank loans, overdrafts, and finance lease	(73,436)	-	(72,635)	-	(72,635)
Related party loans	(30,523)	-	(30,706)	-	(30,706)

Financial instruments measured at amortized cost

The carrying amount of cash and cash equivalents, bank overdrafts, trade and other receivables, and trade payables approximates their fair value due to the short-term maturity of these financial instruments.

The fair value of the Group's non-current liabilities is based on their present values calculated by discounting future cash flows at current rates of interest available for debt with the same maturity profile.

The Group's principal financial instruments not carried at fair value are cash and cash equivalents, trade receivables, other current assets, other non-current assets, trade and other payables, bank overdrafts, and long-term borrowings.

Financial instruments measured at fair value

Financial assets and liabilities accounted for at fair value through profit or loss

The Group's financial instruments measured at fair value primarily consist of forward foreign exchange contracts and interest rate swaps, as well as an equity investment in a company listed on the NASDAQ stock exchange. The fair values of the forward foreign exchange contracts and interest rate swaps are determined by calculating the present val-

ue of the contractually agreed payments at the statement of financial position date by reference to current interest rates and exchange rates. The fair values are confirmed to the Group by the financial institutions through which the Group has entered into these contracts. The fair value of the equity investment in a company listed on the NASDAQ stock exchange is based on the price quoted for those shares at the reporting date. The changes in the fair value of this investment are recorded in profit or loss, although the investment is not held for trading purposes, as the Group did not opt to present fair value changes in other comprehensive income.

The fair values of derivatives are calculated using discounting techniques applied to expected cash flows arising on the respective instruments (level 2 fair value measurements). The changes in the estimated fair value of derivatives are recognized in profit or loss. There have been no transfers of assets or liabilities between levels of the fair value hierarchy in the current or previous year.

The fair values of derivatives comprise the following:

in thousands of U.S. dollars	2019	2018
Outstanding interest hedge contracts	-	(317)
Total	-	(317)

The following table presents the aggregate nominal amounts of the Group's outstanding derivative financial instruments:

in thousands of U.S. dollars	2019	2018
Outstanding interest hedge contracts, maturing within one year	-	6,949

The USD/EUR exchange forward contracts as well as the hedging contracts in respect of the Malaysian ringgit were terminated in first half of 2018. All interest hedge contracts expired in 2019.

Derivatives entered into for hedging purposes are recorded at fair value, and changes in the fair value of these instruments are recorded in profit or loss. Hedge accounting is not applied.

Financial assets and liabilities accounted for at fair value through other comprehensive income

The Group had no financial assets and liabilities accounted for at fair value through other comprehensive income in the current or previous financial year.

Management of risks arising from financial instruments

The X-FAB SE Group's principal financial liabilities, other than its derivatives, comprise bank loans and bank overdrafts, and trade payables. The main purpose of these financial liabilities is to finance the Group's operations. The Group has various financial assets such as trade receivables and cash and short-term deposits, which arise directly from its operations.

Financial assets in form of free short-term cash available are placed on deposit with banks with a high credit rating. Deliveries made by the Group are subject to the reservation of proprietary rights until the customer has paid for the goods. Generally, further security is not obtained.

From time to time the Group also enters into derivative transactions. The purpose is

to manage the foreign exchange risks and interest rate arising from the Group's sources of finance where the risks of financial loss or the liquidity risk appears excessive. While these transactions are classified as FVTPL for accounting purposes because the Group does not formally account for them using hedge accounting techniques, they are exclusively entered into to reduce the risk of contractually agreed or highly probable transactions.

The main risks arising from Group's financial instruments are market risks (interest rate and foreign currency risks), credit risk, and liquidity risk. The Board of Directors reviews and agrees policies for managing each of these risks. The primary objectives in managing these risks is to minimize the risk of financial loss and the risk of any interference with the Group's ability to pursue its commercial objectives. The policies followed in respect of each risk are summarized below.

Interest rate risk

The X-FAB SE Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates.

The Group's policy is to manage its interest cost using a mix of fixed and variable rate debts. To manage this, the Group enters into interest rate swaps, in which the Group agrees to exchange, at specified intervals, the difference between fixed and variable rate interest amounts calculated by reference to an agreed-upon notional principal amount. At December 31, 2019, after taking into account the effect of interest rate swaps, about 92% of the Group's borrowings (excluding financial leases) are at a fixed rate of interest (December 31, 2018: 81%). Accordingly, the Group's exposure to interest rate risk is limited.

Foreign currency risk

The Group's statement of financial position can be affected by changes in the dollar exchange rates, in particular movements against the euro (EUR) and the Malaysian ringgit (MYR). This risk mainly relates to transactions in foreign currency.

The following table provides an analysis of monetary assets and liabilities by currency denomination, expressed in thousands of USD:

Assets and liabilities denominated in EUR:

in thousands of U.S. dollars	2019	2018
Assets		
Trade accounts receivable	10,215	11,663
Other assets	47,014	36,850
Cash	27,923	62,589
Liabilities		
Trade payables	11,975	13,225
Loans and borrowings	60,936	73,436
Other liabilities and provisions	24,208	26,538

Assets and liabilities denominated in MYR:

in thousands of U.S. dollars	2019	2018
Assets		
Trade accounts receivable	318	220
Other assets	6,013	117
Cash	90,563	96,327
Liabilities		
Trade payables	1,117	1,119
Other liabilities and provisions	17,675	15,100

The Group's policy is to manage selected foreign currency exchange risk by entering into forward rate currency purchase or sale transactions (currency forwards) for specific amounts of foreign currencies in anticipation of transactions which are contractually fixed or highly probable.

The following exchange rates were used in preparing the consolidated financial statements:

	2019	2018
USD/EUR		
Closing rate	0.893	0.872
Average rate	0.893	0.846
USD/MYR		
Closing rate	4.142	4.152
Average rate	4.106	4.033

The Group also has currency exposures arising from sales or purchases made when operating units undertake transactions in currencies other than their functional currencies.

Approximately 25.2% (2018: 18.7%) of the Group's sales and 49% (2018: 50%) of the costs are denominated in currencies other than the functional currency of the operating unit making the sales.

The following table demonstrates the sensitivity to changes in fair value of monetary assets and liabilities on the Group's profit before tax to reasonably possible changes in the USD/EUR and USD/MYR exchange rates, with all other variables held constant and excluding effects of foreign exchange related derivatives held. We have also assessed that the sensitivity to changes in fair value of monetary assets and liabilities to profit before tax is a good approximation of the effect on equity of the Group as the associated tax effect would not be significant.

USD/EUR	Increase/decrease in EUR rate	Effect on profit before tax
2019	5%	-665
	-5%	665
2018	5%	-115
	-5%	115

USD/MYR	Increase/decrease in MYR rate	Effect on profit before tax
2019	20%	15,757
	-20%	-15,757
2018	20%	15,883
	-20%	-15,883

The Group believes that a reasonably possible change of other exchange rates, with all other variables held constant, will not have a significant effect on the Group's profit before tax and on the Group's equity.

The currency risk from translating foreign entities with a functional currency that is different from the presentation currency can be considered to be immaterial as it relates to non-significant entities.

Credit risk

The Group's primary risk credit concentrations affecting financial assets are in respect of trade receivables (described in note 7.4), balances with related parties (note 12), and balances and short-term deposits at banks (note 7.6).

The Group only trades with recognized, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivables balances are monitored on an ongoing basis to ensure that the Group is not exposed to significant risk of credit loss. The maximum exposure is represented by the carrying amounts disclosed in notes 7.4 and 7.5. With respect to credit risk arising from financial assets, including cash and cash equivalents, the Group's maximum exposure to credit risk arising from default of the counterparty is equal to their carrying amounts in the statement of financial position.

The Group has not recorded any expected credit losses for cash and cash equivalents as it considers that any measurement of the 12-month expected loss would be an insignificant amount given the good credit rating of the respective banks.

The counterparties for the Group's derivatives are banks with a high credit rating.

Liquidity risk

The Group monitors its risk of a shortage of funds and of difficulties in meeting obligations associated with financial liabilities. The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank loans, bank overdrafts, and other financial instruments. Based on the positive cash flow projections and the excess of current assets over current liabilities there is no significant liquidity risk at December 31, 2019. The expected cash flows from trade and other receivables maturing within two months total USD 55,637 thousand (December 31, 2018: USD 71,378 thousand). Trade accounts payables are due within the next 12 months. An analysis of the maturity of financial liabilities and available credit lines is presented in note 7.10.

Capital management

The primary objective of the Group's capital management is to ensure that it maintains a strong credit rating and healthy capital ratios in order to support its business and maximize shareholder value. The Group manages its capital structure (consisting of equity and borrowings) and makes adjustments to it in the light of changes in economic conditions. To adjust the capital structure, the Group may choose to take measures such as making payments to or adjusting dividend payments made to shareholders, returning capital to shareholders, or raising new capital by issuing new shares. Following the adoption of IFRS 16 Leases on January 1, 2019 the amount of lease liabilities reported in the statement of financial position increased as described in note 11 on changes in accounting policies. In doing so, the comparative information has not been restated due to the policy followed on transition. No change was made to the Group's capital management objectives, policies, or processes during the years ended December 31, 2019 and December 31, 2018.

The X-FAB SE Group's bank loan agreements do not impose externally imposed capital requirements requiring the maintenance of specific equity and free cash flow ratios. The credit agreements contain certain other covenants typical for such borrowing arrangements which impose a number of requirements on the relevant obligors, including, among other things, a negative pledge clause, obligations to provide certain information relating to the financial condition of the obligor, and change of control provisions. In addition, the Company has entered into undertakings under the terms of certain credit agreements to maintain its existing equity percentage in the share capital and related percentage of voting rights of its respective subsidiaries.

11 Leases

The Group has various lease arrangements for the use of commercial properties, infrastructure, and technical equipment and machinery. The arrangements run until 2034 and carry interest rates between 0.02% and 4.82%. The contractual arrangements vary from lease to lease. Some of these arrangements include

purchase options at a price that is lower than the expected fair value of the assets at the end of the lease period, so that the Group expects that these will be acquired at a later date. Those leases were classified as finance leases under previous accounting standards prior to the initial application of IFRS 16 Leases from January 1, 2019. In addition, the Group has various other lease arrangements which were recognized as operating leases up until December 31, 2018 in accordance with previous accounting standards for which leasing liabilities are now recognized in accordance with IFRS 16.

The carrying values of right-of-use assets presented as property, plant, and equipment were as follows:

in thousands of U.S. dollars	2019	2018
Net book value January 1, 2019	27,895	7,421
Additions	7,930	-
Depreciation	(5,094)	(1,312)
Disposals	-	-
Reclassifications	125	-
Net book value December 31, 2019	30,856	6,109

The figures in the above table include assets held under finance leases under previous ac-

counting standards for leasing at December 31, 2018 with a purchase cost of USD 9,520 thousand less accumulated depreciation of USD 3,411 thousand at December 31, 2018. The purchase cost was increased by USD 21,786 thousand on January 1, 2019 on transition to IFRS 16 (refer to note 4.20 above).

Many of these leases include extension options exercisable by the Group. At the commencement of the lease the Group assesses whether it is reasonably certain to exercise the extension options. The Group reassesses whether it is reasonably certain to exercise the options if there is a significant event or significant changes in circumstances within its control. Should the Group exercise the extension options the future cash outflows under leasing arrangements, the right-of-use assets recognized and the commitments under the lease liabilities would be increased. The Group does not make estimates of such potential increases as the most significant extension options are at future dates and the amounts and available operational alternatives may change. The overall level of right-of-use assets and leasing obligations are, however, unlikely to change materially.

The future minimum lease payments due in respect of lease liabilities are as follows:

in thousands of U.S. dollars	2019		2018	
	Minimum leasing payment	Present value	Minimum leasing payment	Present value
2020	5,650	5,593		
2021-2023	24,303	24,250		
2019			2,235	2,176
2020-2022			2,358	2,324
Total	29,953	29,843	4,593	4,500
Interest	(111)	(111)	(93)	(93)
Liability	29,842	29,732	4,500	4,407

Expenses relating to short-term leases amounted to USD 543 thousand and expenses relating to leases of low-value assets (excluding short-term leases of low-value assets) amounted to USD 48 thousand. Expenses under leases classified as operating leases under previous accounting standards for leasing totaled USD 6,871 thousand in 2018.

12 Transactions with related parties

Transactions with shareholders and their subsidiaries

As part of its normal business activities, X-FAB SE Group undertakes transactions with entities in the XTRION group, a group of companies controlled by XTRION NV, the ultimate parent

company and the largest shareholder of X-FAB SE. These include the purchase of certain work in process and services, as well as the sale of products and provision of services to these companies. XTRION NV is also the parent company of Melexis NV, which develops, designs, and sells integrated circuits to customers such as the automotive industry. The main wafer suppliers for Melexis group are X-FAB SE's subsidiaries. Melexis group also provides final test services as well as design support to X-FAB SE subsidiaries. Refer also to the corporate governance statement.

Conditions of the commercial relations between X-FAB and its related parties are in line with those that have been agreed upon between independent parties in comparable circumstances.

The tables below show the balances with shareholders and their subsidiaries included in the statement of financial position.

in thousands of U.S. dollars	2019	2018
Trade accounts receivable due from Melexis group companies	16,147	15,538
Trade accounts receivable due from Anvo-Systems	1,547	1,409
Trade accounts receivable due from M-MOS group companies	4,026	5,423
Trade accounts receivable due from Xtrion	-	9
Trade accounts receivable due from X-Celeprint	14	-
Total	21,734	22,379

in thousands of U.S. dollars	2019	2018
Financial liabilities due to Sarawak Technology Holdings Sdn. Bhd.	31,804	30,523
Trade accounts payable due to Melexis group companies	126	119
Trade accounts payable due to XTRION	-	11
Trade accounts payable due to Sensinovat	107	122
Other	-	36
Total	32,037	30,811

Receivables from related parties relate to trade receivables, do not carry interest, and are payable on normal credit terms.

Further information on the financial liability payable to Sarawak Technologies Holding Sdn. Bhd., a Malaysian government agency, is provided in note 7.10.

Sales made to companies of the XTRION group primarily include the supply of PCM-tested wafers and NRE on the basis of wafer supply agreements made between the parties.

Other income results from the provision of technical facilities, supplies, utilities, property rentals, and services provided. Services provided include information technology, personnel, and legal support services. For services provided, charges are made in relation to the costs incurred based on an agreed formula which considers the use of facilities, employee time spent, and specific transaction details. Interest income and expenses arose in connection with loan arrangements.

Sales and other income comprise the following:

in thousands of U.S. dollars	2019	2018
Sales to Melexis group companies	181,795	222,106
Sales to M-MOS group companies	9,553	11,855
Sales to Anvo-Systems	231	131
Sales to X-Celeprint	208	-
Property rental and other income from Melexis Group companies	4,743	4,122
Other income from XTRION	-	9
Other income from M-MOS	42	37
Total	196,572	238,260

Purchases, expenses, and other transactions recorded with shareholders and their subsidiaries were as follows:

in thousands of U.S. dollars	2019	2018
Services provided by Mel-exis group companies	1,175	1,017
Services/purchases provided by M-MOS group companies	23	181
Services provided by X-Celeprint	54	148
Services purchased from Sensinnovat	371	420
Services purchased from ESA	190	189
Warranty cost Melexis group	725	972
Interest from loan from Sarawak Technology Holdings Sdn. Bhd.	2,876	2,230
Total	5,414	5,157

Services purchased from member companies of the XTRION group primarily included wafer test and final test services. Outstanding balances from sales and purchases of goods and from receiving and rendering of services at the reporting date are unsecured, interest free, and settled in cash. There have been no guarantees provided or received for any related party receivables or payables. The X-FAB SE Group has not recorded any impairment of receivables relating to amounts owed by related parties in the years 2019 or 2018 (refer to note 7.4).

Remuneration of persons with key management positions

in thousands of U.S. dollars	2019	2018
Short-term employee benefits	1,495	1,662
Short-term employee benefits for members of management that are not on the payroll of the Company (CEO and CFO)	561	503
Directors compensation	162	154
Total	2,218	2,319

The persons with key management positions as referred above as of December 31, 2019 include the Group's CEO, COO, CTO, CFO, the

CEO of X-FAB Dresden, the CEO of X-FAB Sarawak, the CEO of X-FAB Texas, and the CEO of X-FAB France.

The Group has made contributions to defined contribution pension plans for the benefit of persons with key management positions totaling USD 66 thousand (2018: USD 185 thousand). Defined contribution plans comprise (mainly) statutory contributions to be made by employers to state-based defined contribution plans. In connection with these plans there are no minimum guarantees by the employer. The defined contribution is based on a fixed percentage of the (capped) gross salary determined by state laws.

13 Other disclosures

13.1 Commitments and contingencies

Purchase commitments

Purchase commitments comprise the following at December 31:

in thousands of U.S. dollars	2019	2018
Purchase commitments for:		
Property, plant, and equipment	19,696	43,097
Intangible assets	459	584
Material and services	62,699	95,870
Total	82,854	139,551

Purchase commitments mainly refer to purchase orders placed for investments in technical machinery. In addition to the presented figures above, the Group is committed to invest USD 120 million (EUR 100 million) in the Corbeil-Essonnes site over a ten-year period from October 1, 2016, the date of its acquisition by the Group. USD 15 million (EUR 11 million) of this obligation remains outstanding at December 31, 2019 (December 31, 2018: USD 67 million).

Purchase commitments for material at December 31, 2019 include commitments of X-FAB Texas for silicon carbide (SiC) wafer needed in 2020, 2021 and 2022 totaling USD 63 million (December 31, 2018: USD 86 million).

Investment grants and subsidies

Various Group entities receive grants and subsidies in connection with the acquisition of certain qualifying assets (asset-related grants and subsidies) and subsidies to offset research and development costs (income-related grants). No material amounts of other government assistance are received.

Specifically, X-FAB GmbH, XMF, and X-FAB Dresden receive grants and subsidies in connection with the acquisition of certain qualifying assets (asset-related grants and subsidies). The grant rules require that the assets on which investment grants have been received are retained for a period of five years (the subsidy rules, which largely apply to the same assets, have a similar three-year retention requirement), and that specified employee levels are maintained at specific locations. If it is not possible to fulfill these conditions, the grants and subsidies may be partially repayable. The total amount of grants and subsidies received in the past (and thus deducted from the carrying amounts of the assets) on property, plant, and equipment amounted to USD 133.7 million (December 31, 2018: USD 124.3 million). The increase of USD 9.6 million represents grants and subsidies received in the year less disposals of USD 0.2 million. Of this total, USD 9.6 million represents amounts for which the retention requirements have not yet been fulfilled in full.

X-FAB Sarawak was awarded a research and development incentive grant in an aggregate amount of a maximum of USD 72.0 million to finance research and development activities in the State of Sarawak (income-related grant). To date, X-FAB Sarawak has received USD 25 million under this agreement (until December 31, 2018: USD 25 million), which has been accounted for corresponding to the research and development expenses incurred. In 2019 X-FAB Sarawak has recognized a grant receivable for USD 9.6 million (2018: USD 4.8 million) has been obtained as reasonable assurance that X-FAB has complied with the

grant conditions and the cash will be received (refer to note 7.5). X-FAB has not recognized a receivable for the remainder of the USD 72 million, relating to the period after 2019, as the recognition criteria (reasonable assurance) are not deemed to be met at this moment. X-FAB Sarawak must comply with the terms of the agreement, in particular to undertake the research and development activities as planned. This grant will be distributed in annual installments of up to USD 4.8 million each year until 2027 provided that X-FAB complies with the terms of the agreement.

13.2 Unresolved legal disputes and claims

X-FAB SE Group is not involved in court or tribunal proceedings which could have a significant financial impact on the Group, and management is not aware of the threat of any such proceedings.

13.3 Employees

The average number of employees employed by the Group during the year was as follows:

	2019	2018
Production	3,423	3,437
Research and development	320	310
Sales, marketing, and administration	261	265
Trainees	85	69
Total	4,089	4,081

The total number of employees employed by the Group at December 31 was as follows:

	2019	2018
Production	3,365	3,509
Research and development	315	319
Sales, marketing, and administration	258	263
Trainees	93	83
Total	4,031	4,174

Note: Number of employees excludes contract workers (borrowed)

13.4 List of shareholdings

Entity	Place of incorporation	Principal activities	Shareholding %
X-FAB Silicon Foundries SE	Tessenderlo, Belgium	Holding company	
X-FAB Semiconductor Foundries GmbH	Erfurt, Germany	Wafer manufacturing	100.00%
X-FAB Dresden GmbH & Co. KG	Dresden, Germany	Wafer manufacturing	100.00%
X-FAB Dresden Verwaltungs-GmbH	Dresden, Germany	No activity	100.00%
X-FAB Texas Inc.	Texas, USA	Wafer manufacturing	100.00%
X-FAB Sarawak Sdn. Bhd.	Kuching, Malaysia	Wafer manufacturing	100.00%
X-FAB France SAS	Corbeil-Essonnes, France	Wafer manufacturing	100.00%
X-FAB Japan KK	Yokohama, Japan	Trading company	100.00%
X-FAB MEMS Foundry GmbH	Erfurt, Germany	Wafer manufacturing	100.00%
OOO Microdesign	Voronesh, Russia	R&D, Design	100.00%
X-FAB MEMS Foundry Itzehoe GmbH	Itzehoe, Germany	Wafer manufacturing	100.00%
X-FAB Global Services GmbH	Erfurt, Germany	R&D, administration services	100.00%
X-FAB Dresden Grundstücks-Vermietungs-gesellschaft mbH & Co. KG	Dresden, Germany	Real estate	94.90%

13.5 Consolidated financial statements of the ultimate parent

The ultimate parent of the Company is XTRION NV. Although XTRION NV does not hold a majority of the Company's shares, it is the Company's largest shareholder and has a controlling interest given its dominant shareholding position relative to the size and dispersion of other shareholders.

The financial statements of the companies included in the Group are also included in the consolidated financial statements of XTRION NV, the Company's ultimate parent. These can be obtained on request from XTRION NV, Transportstraat 1, 3980 Tessenderlo, Belgium.

13.6 Auditor and auditor's remuneration

During the general shareholders' meeting on May 16, 2017, KPMG Bedrijfsrevisoren CVBA Belgium was reappointed as the parent company's auditor for the years 2017, 2018, and 2019.

The auditor's remuneration for the period was as follows:

in thousands of U.S. dollars	2019	2018
Audit cost		
KPMG	384	345
Other audit firms	58	175
Other services		
KPMG	87	41
Total		
	465	561

14 Events after the reporting period

After the close of 2019, the spread of the new Corona virus constitutes a major event. While it is uncertain at this point what the impact on X-FAB's business will be, the company's focus is on the health and wellbeing of its employees and on ensuring the continuity of production. The financial impact of COVID-19 is at this point in time impossible to predict.

Tessenderlo, March 20, 2020

Managing Director, CEO



Sensinnovat BVBA
Represented by Rudi De Winter
CEO





WE ENABLER SMART INDUSTRIAL SOLUTIONS

X-FAB technologies for our future.

6. CORPORATE SOCIAL RESPONSIBILITY AT X-FAB

6.1 CSR introduction

Scope

This chapter documents X-FAB’s environmental and social performance during fiscal year 2019. The environmental and social performance figures encompassed in this chapter have been prepared according to the Global Reporting Initiative (GRI) Sustainability Reporting Standards (2016) core option.

During an initial materiality analysis expectations and requirements of external and internal stakeholders were evaluated. Based on this, the report takes various topics with regards to sustainability into account, including respect for human rights, personal and social matters, environmental matters, anti-corruption, and bribery as well as supply chain topics.

The report contains the core GRI indices as well as standard disclosures on general characteristics of X-FAB as an organization. Some figures can be found in other parts of the Annual Report. A table identifying the location of key figures and statements can be found on X-FAB’s website. Unless otherwise specified, the disclosed information refers to the 2019 fiscal year. Where applicable, data were collected and/or measured by X-FAB or obtained from external sources, such as utility providers. Data compiled from X-FAB sites was validated using internal procedures. The environmental and social information in this report was not independently verified.



Fig. 6.1: GRI index table (adaption from the GRI Standard)

In general, the provided statements and figures are valid for the entire organization. Site-specific information is indicated where applicable. The report covers all entities of X-FAB Silicon Foundries SE. Outsourced operations were excluded from the CSR report due to their insignificant share of X-FAB’s overall business volume in 2019. The report scope and limits were approved by the X-FAB Board.

X-FAB is fully committed to being the foundry of choice for the analog world by focusing on innovative solutions and on the quality of its products as well as services. X-FAB’s manufacturing excellence meets customer expectations and enables long-lasting success for all stakeholders.

To exceed the expectations of its customers, X-FAB practices a quality management system certified according to IATF 16949:2016 and ISO 9001:2015.

ISO 9001 and IATF 16949

ISO 9001:2015 specifies the requirements for a quality management system. It helps organizations to ensure they meet the needs of customers and other stakeholders while also respecting statutory and regulatory requirements related to a product or service. IATF 16949:2016 as a new automotive standard for quality management systems is implemented as a supplement to and in conjunction with ISO 9001:2015. It specifies the requirements for establishing, implementing, maintaining, and continually improving a quality management system in the automotive supply chain.

Furthermore, X-FAB assumes responsibility by seeking an appropriate balance of interests between the consequences of required business decisions and its activities on economic, technological, social, and environmental levels. To save natural resources and to support the global reduction of CO₂ emissions, X-FAB operates an environmental, health and safety, and energy management system that is certified according to ISO 14001:2015 and ISO 50001:2011. Additionally, X-FAB is a member of the German Electrical and Electronic Manufacturers association (ZVEI) and has signed the ZVEI Code of Conduct already in 2014 with a renewal in 2019.

ZVEI

The ZVEI (“Zentralverband Elektrotechnik- und Elektronikindustrie e.V.”) is the representative of the economic, technological, and environmental interests of the German electrical industry.

The ZVEI has drawn up a Code of Conduct of its own, governing corporate social responsibility. The ZVEI Code of Conduct takes internationally established benchmarks as its reference and covers all relevant subjects.

X-FAB, as one of the largest specialty foundry groups, is aware of the social responsibility it has connected to the Company’s global business activities. X-FAB’s company culture is based on universal ethical values and principles, especially integrity, honesty, respect of human dignity, openness, and non-discrimination comprising religion, ideology, gender, and ethnicity. The company culture is described in detail in section 3. X-FAB is committed to promoting those values wherever possible and across all parts of the value chain. In 2019, no non-compliance with any laws or regulations has been identified concerning the provision and use of products and services and related to environmental laws and regulations. X-FAB fosters partnerships and trustworthy interactions with supervisory authorities.

Stakeholder engagement

Since the introduction of CSR reporting in the 2017 Annual Report, X-FAB continues to put CSR topics on the agenda aiming to improve the Company’s overall sustainability. X-FAB’s mission is to contribute to the social and economic development of the countries and regions where it conducts business and to promote appropriate, volunteer activities by its employees. X-FAB thereby also contributes to the well-being and long-term development of affected societies, in particular regarding working conditions, social and environmental compatibility, transparency, collaboration, and dialog. On June 5, 2019, X-FAB for the first time celebrated the World Environmental Day with several activities taking place across all sites, such as planting trees or educational activities to raise environmental awareness.

X-FAB promotes state-of-the-art technologies and their advancement through its involvement in numerous industry associations and other organizations.

Industry associations

X-FAB is a member of or otherwise related to several industry associations as well as scientific, governmental and standardization organizations including but not limited to:

A. Industry associations

- AENEAS – Association for European Nanoelectronics Activities
- edaCentrum (Association for Electronic Design Automation, Germany)
- ESIA – European Semiconductor Industry Association
- FOA – Fab Owners Alliance
- Förderkreis Mikroelektronik (Society for the Promotion of Microelectronics, Germany)
- GSA – Global Semiconductor Alliance
- IVAM Microtechnology Network, Germany
- SECA – Sarawak Electronics and Supporting Industries Companies Association, Malaysia
- SEMI, global industry association serving the manufacturing supply chain for the micro- and nano-electronics industries
- SFAM – Semiconductor Fabrication Association of Malaysia
- Silicon Saxony, Germany
- ZVEI – Zentralverband Elektrotechnik- und Elektronikindustrie (Electrical Industry Association, Germany)

B. Scientific organizations

- Curatorship in different Fraunhofer Institutes, Germany
- IMMS Institut für Mikroelektronik- und Mechatronik-Systeme (IMMS Institute for Microelectronic and Mechatronic Systems, Germany)
- Texas Tech University, Electrical Engineering Industrial Advisory Board and Dean's Council for the College of Engineering

C. Governmental committees/organizations

- Mikroelektronik Strategiekreis (Microelectronics strategy circle, Germany)
- Silicon Germany

D. Standardization organizations

- DKE – Deutsche Kommission Elektrotechnik Elektronik Informationstechnik in DIN und VDE (German Commission for Electrical engineering, Electronics and Information Technology of DIN and VDE)

To achieve X-FAB's mission, good and effective communication with all stakeholders is essential. The following main stakeholder groups were identified: customers, employees, investors, suppliers, and local communities.

Fig. 6.2 shows the different channels X-FAB is using to communicate about its activities. X-FAB regularly takes stakeholder feedback into account to improve its reporting.

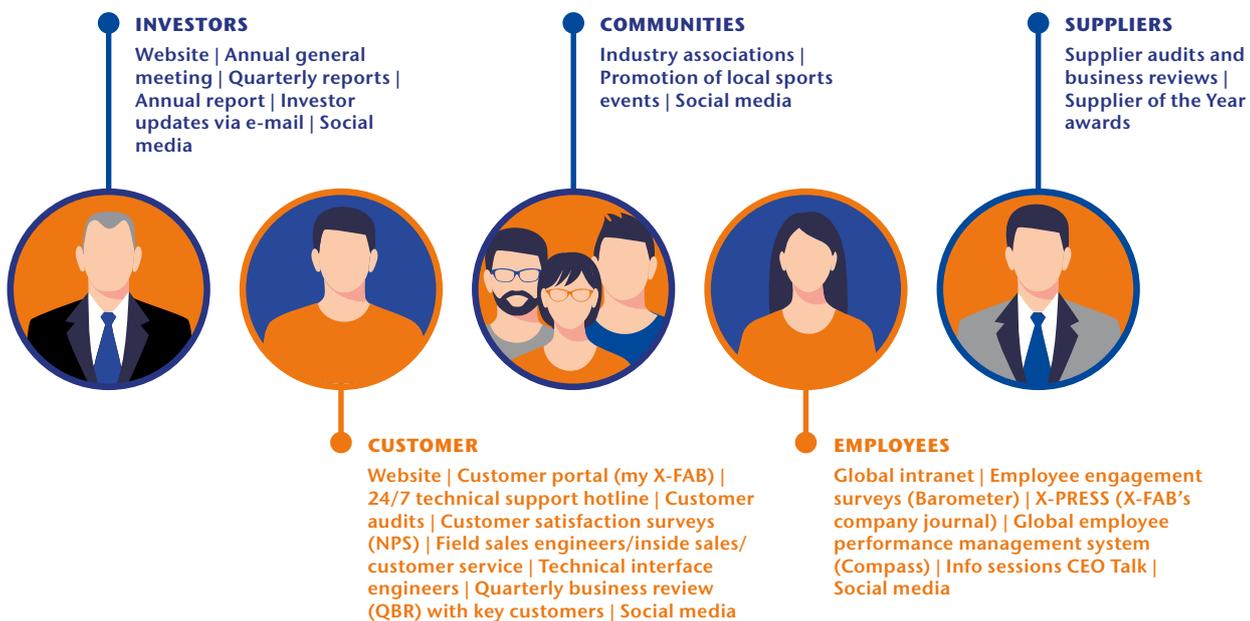


Fig. 6.2: Stakeholder engagement

Anti-corruption and bribery

X-FAB's business practices follow the principles of fair competition with particular focus on professional behavior. X-FAB respects consumer interests by abiding by regulations that protect consumers, and by using appropriate sales, marketing, and information practices in accordance with the ICC International Code of Advertising Practice and the OECD Guidelines for Multinational Enterprises.

ICC International Code of Advertising Practice

The International Chamber of Commerce (ICC) establishes rules governing the conduct of business across borders. The ICC Code of Advertising Practice provides self-disciplinary rules of ethical conduct to be followed by all concerned with advertising: All advertising should be legal, decent, honest, truthful, and prepared with a due sense of social responsibility and the principles of fair competition.

OECD Guidelines for Multinational Enterprises

Founded in 1961, the Organization for Economic Co-operation and Development (OECD) fosters economic progress and stimulates world trade. It is an intergovernmental economic organization with 35 member countries. The OECD Guidelines for Multinational Enterprises are recommendations providing principles and standards for responsible business conduct comprising employment, industrial relations, human rights, environment, and taxation, among others.

In particular, X-FAB rejects corruption and bribery as stated in the relevant UN Convention against corruption from 2003, and promotes transparency, trading with integrity, responsible leadership, and company accountability.

In order to prevent corruption, X-FAB aims at an increased awareness by its employees through comprehensive and repetitive sessions on the company values and strict regulations as outlined in the company handbook. These sessions are attended by all employees and emphasize the corporate values, such as integrity and respect, as well as X-FAB's Code of Conduct. Trainings are organized at least once every two years and all employees are obliged to attend. New employees get a special training during their on-boarding. An Ethics and Conflict of Interest policy is available on the Company's intranet. Furthermore, anti-corruption is mentioned in the Company's rules, which are part of each employment contract. Concerns about unethical behavior are reported either via the workers' council or directly to Human Resources.

X-FAB implemented a "Whistle Blower" system in 2018 to enable employees to make a confidential report of any violations. All X-FAB employees have been made aware of this system. No incidents were reported by employees in 2019.

Ethics training is also provided to all employees. At the start of employment with X-FAB, each new employee receives a copy of the working regulations comprising policies on harassment prevention and the acceptance of gifts, and also a definition of infractions that would lead to legal actions, such as contract termination. Actions taken in response to incidents of corruption comprise all legal actions according to the corresponding national laws. In addition to following all national laws regarding ethical and anti-corruption behavior, X-FAB does not influence politics, neither by participating in political activities nor by donating or supporting parties in elections.

6.2 Human rights and human resources

X-FAB's company ethics are based on universally held ethical values and principles, including respect of human dignity, openness and non-discrimination according to the Code of Conduct (ZVEI). Consequently, X-FAB stands up for human rights as stated in the Charter of the United Nations, especially the protection from harassment, the prohibition of child and forced labor, the prohibition of discrimination, fair working standards and compensation, and freedom of thought, expression, association, and assembly, as well as collective bargaining. Based on the principle of "freedom of association" more than 80% of our employees in Europe are organized under the regulation of local and national collective bargaining agreements. These agreements provide all employees with the highest level of transparency with regards to working conditions.

All operations are continually monitored and reviewed regarding human rights and all of X-FAB's investments are in compliance with respective local laws. Additionally, a specific policy exists addressing the sourcing of conflict minerals which is further described in section 6.6. of this report. Respecting human rights is a matter of course for X-FAB, and in all employment contracts. Any kind of child and forced labor is prohibited. Health and safety for all employees is guaranteed. The protection from corporal punishment as well as physical, sexual, psychological, or verbal harassment and abuse is ensured.

Our internal and security personnel follow very high standards of human rights practices. During the selection process, they have to undergo special screenings and provide special certifications. They undergo specific trainings on values, behavior standards and policies of X-FAB.

X-FAB supports disabled or handicapped people according to local laws. At X-FAB, more than 100 employees with officially registered disabilities are well integrated into daily work processes and routines. Any form of discrimination is strictly prohibited.

All new employees who started in 2019 underwent the mandatory employee orientation of which human rights policies are a crucial focus point. Relevant local laws together with the company handbooks are accessible to all employees on X-FAB's intranet as well as in printed form. This is implemented by the Human Resources (HR) department, whose members are regularly trained (externally and internally) on human rights topics in more detail covering aspects such as inclusion, diversity, and anti-discrimination.

Employees are encouraged to report incidents related to human rights to the HR department or, where available, the workers council and the equal opportunities officer. No incidents were reported in 2019.

In the case of reported incidents, corrective actions are initiated in consultation with the HR department and in compliance with local laws. The identity and well-being of employees who report on the violation of any law or regulation of the Company, on any activities that are against the interests of the Company or on any matter likely to harm any other person are protected by the global Whistle Blower procedure.

Employee statistics

At the end of 2019, X-FAB had more than 3,900 employees worldwide at six different manufacturing sites in Europe, Asia, and the US. At all of its sites, X-FAB's recruitment policy is based on the employee's qualifications and the Company's requirements. Consequently, different requirement profiles exist in technology and operations-related positions. In order to ensure global knowledge transfer in a challenging job market, X-FAB is trying to broaden its pool of candidates. In particular, X-FAB is aiming at increasing its share of female employees, which increased from 23% in 2016 to 27% in 2019.

In 2019 and due to challenging market conditions, the total number of employees was reduced by more than 200.

Region	Absolute # of employees	Percentage of employees [%]	Absolute # of male employees	Absolute # of female employees	Percentage of female employees [%]
North America	432	11.0	322	110	25.5
Europe	2,246	56.8	1,719	527	23.5
Asia	1,269	32.2	854	415	32.7
Total	3,947	100	2,895	1,052	27.2

Fig. 6.3: Number of employees (without trainees and including contract workers) by region and gender as at year end 2019

Employees' rights and working standards are highly valued at X-FAB. Consequently, all arrangements comply with corresponding national laws and requirements. X-FAB employees with a full-time contract, which applies to 83% of all employees, work between 35 and 40 hours per week. 97% of employees hold a permanent employment contract. Less than 1% of staff are contract workers (borrowed).

In 2019, X-FAB started a program to support flexibility at work and supports part-time contracts to offer flexibility in adjusting the work-life balance to varying life and family circumstances. Therefore, the number of part-time contracts nearly doubled in 2019 compared to 2018. In particular the number of male em-

ployees with part-time contracts increased significantly and shows X-FAB's approach towards gender equality. In exceptional family or health situations X-FAB grants full flexibility to adapt to special circumstances promoting job retention for the employee.

In 2019, X-FAB introduced flexible start and end time periods for all employees at the site in Kuching, provided the nature of the work allows such flexibility. Therefore, employees can better adapt their working hours to family engagements. For employees with jobs that do not allow such flexibility X-FAB offers other ways, such as temporarily reduced working hours.

Region	Gender	Restricted/fixed term	Unrestricted/permanent	Borrowed	Trainees/interns	Full-time	Part-time
North America	Male	0	314	4	0	316	2
	Female	0	102	4	0	105	1
Europe	Male	75	1,609	1	80	1,574	188
	Female	32	487	0	14	393	140
Asia	Male	3	851	0	6	860	0
	Female	1	414	0	2	417	0
Total	Male	78	2,772	5	86	2,750	190
	Female	33	1,003	4	16	915	141

Fig. 6.4: Employment contracts by type, region, and gender as at year end 2019

About 81% of all contracts in Europe are collective bargaining contracts. In other regions of the world this concept is not common and, therefore, there are no collective bargaining agreements in place.

In 2019, 325 new employees were hired, 71% of them being male and 29% being female. The majority of newly hired employees are younger than 35 years.

Region	Gender	< 35 yrs	36-50 yrs	51-60 yrs	> 60 yrs	Total
North America	Male	15	5	3	1	24
	Female	8	3	2	0	13
Europe	Male	160	32	7	2	201
	Female	47	18	9	0	74
Asia	Male	5	2	0	0	7
	Female	5	1	0	0	6
Total	Male	180	39	10	3	232
	Female	60	22	11	0	93

Fig. 6.5: Newly hired employees (including contracted workers and without trainees) by age and gender in 2019

Region	Gender	< 35 yrs	36–50 yrs	51–60 yrs	> 60 yrs	Total
North America	Male	17	10	7	9	43
	Female	5	2	2	2	11
Europe	Male	145	51	15	2	213
	Female	37	20	5	2	64
Asia	Male	42	16	3	0	61
	Female	13	1	0	0	14
Total	Male	204	77	25	11	317
	Female	55	23	7	4	89

Fig. 6.6: Employees (not including trainees and retirements) who have left X-FAB in 2019 by age and gender

X-FAB conducts an employee engagement survey, referred to as Barometer, on a regular basis. In 2020, X-FAB plans to have the next employee engagement survey. The positive results from the last survey are supported by a low turnover rate in 2019 of 5% (retirements not included), which is nearly the same level as in 2018.

In 2019, X-FAB acted under a strict hiring policy by reviewing any single new hire via the CEO and VP Human Resources. This allowed X-FAB to adjust to the specific market conditions over the year.

The average age is different in each location, ranging from 36 years in Asia to 47 years in America.

Region	Average age of all employees	Average age of male employees	Average age of female employees
North America	47.0	47.0	44.0
Europe	42.8	42.9	42.2
Asia	35.9	37.0	33.7

Fig. 6.7: Average age by region and gender

X-FAB is aware of the importance of fair payment. Therefore, all employees receive salaries above the minimum wage according to individual qualification irrespective of gender or age. Based on specific local laws and regulations employees have the opportunity to enquire about the equal pay policy of X-FAB by benchmarking their payment against a relevant group of employees. Of all employees who were on parental leave nearly 100% returned to X-FAB.

Developing excellence

The success of a company, and thus also X-FAB, depends on whether its employees are able to optimally contribute their individual strengths, which consequently need to be identified and individually developed. The required expertise includes solid knowledge and understanding of X-FAB's internal procedures and production processes as well as job-specific knowledge, all of which are part of the introductory training plan for each new employee. For a high level of environmental and social awareness, company values, quality awareness as well as employee rights are highlighted from the beginning of the working relationship at X-FAB. Enabling employees to be promoted to positions with either higher technical or staff responsibility requires constant development in different areas. To ensure global knowledge transfer and continual development of all employees, internal workshops, training sessions, Lunch & Learn sessions, Knowledge Networks, and webinars on various technical topics are incorporated into the daily work of every X-FAB employee. Besides the technical skills, leadership and project management are also valued competencies of employees and are thus fostered by X-FAB. Leadership and personality development training is performed in cooperation with external partners. In 2018, we started a global customer communications training program. During 2019 employees from the sites in Kuching, Erfurt, and Corbeil-Essonnes have participated in the program, which was conducted by internal as well as external trainers.

Region	Gender	< 35 yrs	36–50 yrs	51–60 yrs	> 60 yrs
North America	Male	36	24	24	24
	Female	36	36	24	24
Europe	Male	60	51	36	9
	Female	44	21	12	53
Asia	Male	11	13	20	0
	Female	12	17	24	0

Fig. 6.8: Average training hours per year and employee in 2019

After a successful program launch for participants from the German sites back in 2016, X-FAB initiated a dedicated two and a half-year educational program for professionals and talents from all X-FAB sites designed to develop project management and personal skills. The program concentrates on the areas “personality and leadership,” “project management,” “quality management,” “strategic thinking,” and “cultural awareness.” Sixteen employees from all X-FAB locations started the program and, alongside the trainings, work on several strategically important projects for the X-FAB Group.

To support the career of X-FAB’s technical experts and to acknowledge that technical and management expertise make contributions to the organization that are equally important, X-FAB has established a system of human capital management. An important part is X-FAB’s Technical Ladder. It enables visionary technical leadership and expertise, and supports recruitment, individual development, and retention of talented people in a competitive employment market, acknowledging the highest levels of technical expertise. The Technical Ladder is also a result of standardization processes to ensure comparable job grades and responsibilities in all working areas within X-FAB. This helps X-FAB to fulfill the requirements of technically demanding project work and to implement the company values.

To keep up with the fast development within the high-tech area, X-FAB supports innovation – being one of the company values – and participates in publicly funded projects. In those projects, X-FAB enables technical experts to conduct research and to propel state-of-the-art technologies by proving feasibility of new concepts or the industrialization of innovative process technologies. Innovation is appreciated by X-FAB, and technical experts are explicitly invited and encouraged to publish their findings in international journals and to file patents.

Besides the development of its existing staff, X-FAB is highly interested in offering a wide range of opportunities to potential future employees, for example via apprenticeships, internships, and student trainings. This comprises commercial and technical careers, dual study programs, and financial support for employees who wish to enhance their skills and knowledge by obtaining relevant qualifications.

X-FAB also offers dual study programs which combine theoretical sessions and practical work allowing students to integrate these skills for their future working life from the beginning of their studies. Apprenticeships offered by X-FAB cover commercial careers, for example as office assistant, industrial business specialist, or warehouse logistics specialist, and technical careers, such as microtechnologist, chemical lab technician, or IT specialist.

X-FAB proactively promotes a culture of diversity and equal employment opportunities by promoting female career models within and outside the Company. In May 2019, Elisabeth Lee from X-FAB Texas was recognized as the Spotlight on SEMI Women Honoree for Q2 2019 by SEMI, a global industry association representing the global electronics manufacturing supply chain.



Fig. 6.9: Q2 2019 Spotlight on SEMI Women Honoree Elisabeth Lee from X-FAB Texas (second from right)

In 2019, X-FAB Sarawak has also received the inaugural Employer Excellence Bronze Award by the Malaysian Employers Federation (MEF). This is a strong signal that our constant efforts of improving our work atmosphere are also recognized by external bodies.

Rewarding efforts

As an international company, X-FAB employs people from many different regions around the world with different ethnic origin and social backgrounds, resulting in a broad range of individual needs. Being aware of those needs and driven by the responsibility for the Company's staff as well as the aim of long-term employment, X-FAB strives to meet those needs. Nowadays, the modern world demands a high level of self-responsibility and flexibility, especially from working parents and those with elder care responsibilities. Therefore, X-FAB offers flexible working time models and strives to find individual working time solutions for its employees. X-FAB grants leisure time for private matters, such as moving and marriage, and supports working parents financially in case of their children's illness. Employees above a certain age are offered the possibility to reduce their weekly working hours, where it is appropriate. In particular, X-FAB's Asian sites appreciated the daily flexibility in terms of working hours (start and end time), which is a well perceived benefit to balance personal and private matters. Moreover, X-FAB's company pension scheme supports its employees financially after their transition to retirement.

X-FAB cares about its employees' increased health awareness and growing interest in an active way of life. X-FAB supports activities at its different sites to keep employees healthy, such as internal sport groups, soccer teams, and running groups, or reduced pricing for fitness clubs. Furthermore, a variety of fitness activities and trial lessons as well as fitness and health checks are offered to employees during global Environment, Health & Safety (EHS) weeks.

Work Environment

X-FAB is interested in a good working atmosphere and strives to provide a pleasant and inspiring work environment. Cafeterias, lunchrooms, and subsidized meals are offered to employees. Furthermore, chill-out rooms and staff rooms with journals, internet access, and free non-alcoholic drinks are available to support employees during their work breaks.

At the site in Itzehoe a new office building has significantly improved the work environment, fostering collaboration and teamwork.



Fig. 6.10: New office Building at the X-FAB site in Itzehoe (Germany)

X-FAB rewards outstanding employee performance with incentive cash payments during the year and in the form of bonuses. Both individual employees and teams undertaking extraordinary efforts for X-FAB's benefit are acknowledged by the Company's corporate management.

6.3 Social commitment

X-FAB encourages its employees to engage in non-profit and educational activities that contribute to the communities X-FAB is active in. In several sessions, each employee is trained in the company values with the implementation of those values in everyday work life being recorded in a learning management system (LMS) aiming at personal development. Eventually, this leads to even more innovation and higher ethical standards, which also has a positive impact outside the working environment.

Social awareness and responsibility

X-FAB identified opportunities for global and local activities that contribute to the communities in which X-FAB is operating. X-FAB has also raised money to support local programs as well as international charity organizations, such as United Way Worldwide. In December 2018, X-FAB for the second time carried out its Christmas Donation campaign. The Company raised USD 1,000 through a Christmas webpage and donated to the American Heart Association in Lubbock.



Fig. 6.11: Handover of X-FAB's Christmas donation to the American Heart Association by Lloyd Whetzel, CEO of X-FAB Texas

Blood donation is one of the most important ways to make a direct personal contribution. X-FAB supports such collective efforts by organizing regular blood donation campaigns several times a year. For employees it is a matter of course to voluntarily support the Red Cross through blood donation.

X-FAB also supports sport events with a charity background by enabling its employees to attend these events. This not only helps to increase team spirit but also supports local organizations and sports clubs.

Educational awareness and responsibility

It is important to X-FAB to invest in the education and skill development of the young and children as the next generation by sponsoring books and other educational material to kindergartens, supporting lectures at universities (e.g. providing design courses in engineering schools), investing in education competitions, and organizing summer schools (Microchip Summer University). To provide opportunities for practical training and work experience in technical fields, X-FAB offers internships to high school and university students and also offers students company tours on request. Besides its sponsoring activities, X-FAB maintains close relations with high schools, colleges, and universities to support students by offering internships and career guidance. X-FAB also works with local universities and supports the SEMI High Tech University for high school graduates considering a future

career in science, technology, engineering, or mathematics (STEM).

In 2019, X-FAB France as the only French semiconductor company was selected to participate in a Pan-European project funded by the European Commission called METIS (Micro-Electronics, Training, Industry, Skills). As part of ERASMUS+, the consortium consisting of more than 30 participating parties from the industry and the educational sector, X-FAB actively contributes to the success of the program. The goal is to increase the visibility and attractiveness of microelectronics within schools and other educational areas via modern learning tools and platforms.



Fig. 6.12: Members of the METIS consortium

Various scientific and engineering competitions are supported either by providing knowledge to participants or by serving as jury, e.g. at the student's robotics competition. X-FAB works with many global and local partners to improve educational opportunities for kids and the young, e.g. by supporting corresponding technical clubs. Besides our educational responsibility towards society, X-FAB cares about gender equality and the development of girls in STEM jobs. Therefore, X-FAB actively encourages girls to consider working in technical areas by sponsoring and running STEM days for girls. In 2019, X-FAB supported a project to arouse the interest of girls aged eight to eleven for STEM by having X-FAB engineers explain and host some simple scientific experiments in schools. With such programs, X-FAB actively promotes early interest in science.

To maintain contact with the public, X-FAB enables regular public visits and also uses social media channels, such as Facebook and LinkedIn, to inform about social activities and job opportunities. In addition, each X-FAB site participates in college and university career fairs in order to recruit interested students and to inform them about career opportunities. In addition to our presence at job fairs, X-FAB also participated in numerous technical exhibitions and conferences to offer its employees the possibility to gain and exchange professional knowledge and to network.

6.4 Healthy work environment

Employees' well-being and safety

X-FAB ensures that all company activities are performed in a manner that considers the health and safety of employees, contractors, suppliers, customers, and the general public with no adverse impact on the environment through manufacturing operations and products by operating an EHS management system that is certified according to ISO 14001:2015.

Education and training to improve employees' EHS awareness, safety, and well-being is critical for X-FAB. Regular safety-related trainings and instructions help to avoid accidents and injuries. Each location has an associated company doctor performing routine medical examinations, such as eye examinations, vaccinations, travel-related medical consultations, etc. Security personnel (internal and outsourced) are also trained on company policies.

Additionally, periodic safety briefings are performed and an annual global EHS week has been established. At the annual EHS week, information about health protection, safety, sustainability, and environmental topics is offered to all employees via information desks, posters, and other events. Company tours offered by coworkers increase employees' awareness of hazards in the workplace, and several training sessions are offered to improve their skills in first aid and firefighting. Furthermore, a variety of fitness activities and trial lessons as well as fitness and health checks are offered

to employees. In addition to these dedicated training sessions and events, information on environmental and quality awareness is provided and made accessible to all employees via the company intranet.

At all X-FAB locations, accidents are tracked according to local laws but there is no globally harmonized procedure to collect additional information related to accidents or occupational diseases. However, X-FAB tracks accidents in the Operations department the same way at all manufacturing locations. Based on this information, X-FAB recorded 34 accidents in 2019, which caused 2,807 work hours lost, resulting in a frequency rate of 6.12 and severity rate of 63.11. There were no fatal work-related accidents at X-FAB in 2019.

Hygiene concepts for cleanrooms

At each of X-FAB's production sites, a large share of employees work in a cleanroom where the use of rubber gloves, special clothes, and shoes is a requirement. It is necessary to avoid particle and ion contamination or electrostatic discharge as it would negatively impact the functionality of the semiconductor products manufactured. X-FAB aims to prevent any medical harm as well as ensure a safe working environment and employees' well-being. X-FAB has therefore established cleanroom concepts to maintain a high level of hygiene and health including specific protection plans. For example, to prevent skin diseases, there is a skin protection plan in place with skin care products available at any time for each employee. For orthopedic reasons, cleanroom shoes are individualized and ergonomic. Cleanroom clothes are partially personalized. Ear plugs are available for noise protection.

Preventive maintenance

Maintenance activities are the basis for the safe operation of equipment and tools. To prevent equipment malfunctions and failures X-FAB uses a global procedure to manage a preventive maintenance system. Even though the system's focus is on securing the productivity of the equipment, operational safety is one of the objectives covered. The execution

of the global procedure is secured with local instructions, which manage the preventive maintenance regime for each production site. The maintenance instructions and schedule include information based on vendor manuals, experiences during operation, tool performance parameters, major incidents, product quality, and audit findings. Furthermore, two types of preventive maintenance actions exist: actions triggered by a time interval, and actions triggered by reaching special tool parameters describing the current tool wear.

This altogether helps to ensure that the overall tool status remains excellent and to prevent accidents caused by machine malfunctions, such as electrical hazards, leakage of dangerous materials, or mechanical issues.

6.5 Environmental responsibility

X-FAB's expertise in process technologies is used by its customers to develop technologies for greener energy solutions enabling a sustainable future. However, the production of high-quality microchips and micro-sensors generally requires a huge amount of materials and energy. Thus, X-FAB has a responsibility regarding environmental topics. This is why, in addition to the Company's business, environmental activities are handled with an integrated quality management system with all sites being certified according to the ISO 14001:2015 standard. It is X-FAB's goal to balance current environmental, social, and economic requirements in order to minimize its impact on future generations. One standard and permanent goal is to fulfill all existing compliance obligations.

Environmental awareness and responsibility

In addition to the company values, X-FAB trains its employees on various topics in order to increase individual awareness for the Company's environmental impact as well as sustainability. All sites obey strict environmental local laws. In addition, each site defines specific environmental goals, which are renewed annually and implemented to continuously reduce the Company's impact on the environment.

Various environmental topics have been assigned to dedicated employees within X-FAB to ensure these environmental responsibilities, in compliance with the EHS policy and following the requirements of ISO 14001:2015, are fully covered. The following functions are defined: waste inspector, energy management inspector, radiation and emission inspector, and safety inspector. Employees taking over any of these roles are trained accordingly.

To maintain high standards, X-FAB engages with external experts and institutes for employee development. Apprentices of the site in Erfurt, for example, participated in a qualification program under the SME Initiative Energy Transition and Climate Protection to qualify for the certificate as energy scouts. During this training program, X-FAB's apprentices designed and implemented an energy-efficiency project, which was subsequently honored with a national award in 2019.

The production of semiconductors requires the use of large amounts of different materials, among them toxic materials and greenhouse gases. Thus, tracking the material flow and monitoring the material efficiency as well as their use is necessary to reach sustained environmental conservation. All X-FAB sites are located in industrial areas. There are no adjacent nature reserves or similarly classified areas so the impact on the biodiversity is minimized.

The data used for an overview of X-FAB's environmental indicators is consolidated across all sites and normalized to wafer area sold in cm² (total of 233.51 million cm²). X-FAB Itzehoe is not included as it is part of a joint site with only aggregated data available. However, compared to all other sites, the material and energy consumption as well as the corresponding output of waste and gases are not material.

Materials and waste management

The need to use material that might cause toxic waste in the production of semiconductor products is a special challenge and a key environmental aspect. Therefore, material depart-

ments and waste commissioners have been established at each X-FAB site. The following materials are used for production: solvents, resists, neutral etchants, acids and bases, metals, gases, and water. Classifications are used and waste is separated by X-FAB to reduce the amount of hazardous or non-recyclable waste. The majority of the waste (hazardous as well as non-hazardous) is sent for recycling in order to recover valuable resources. In 2019, there was a slight decrease in the total waste generation compared to 2018, while the share of waste recovery was maintained at a high level of 85%.

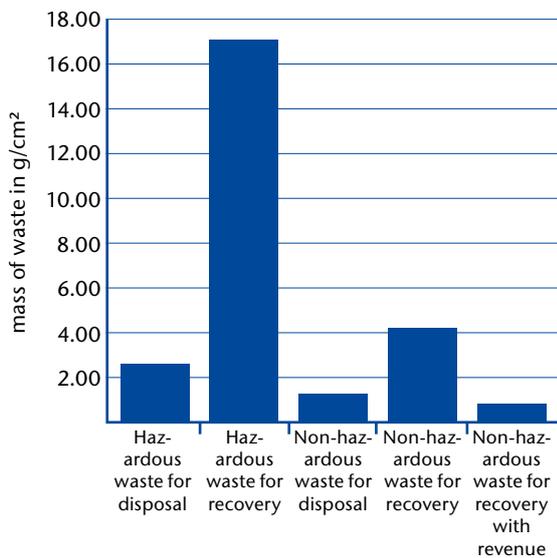


Fig. 6.13: Amount of waste by type and disposal method normalized to the total wafer area sold

X-FAB pursues permanent environmental objectives to decrease its overall environmental impact. Some of the activities carried out are:

- replacement of aging air compressors in N₂ plant, resulting in cost savings of USD 51,000 per year and 100% reduction of liquid N₂ usage (Dresden);
- ban on all single-use plastic at the staff cafeteria and all staff provided with a food container for takeaways (Kuching);
- extension of CMP polishing pad lifetime resulting in an annual saving of USD 60,000 (Kuching); and

- reduction of frequency of pre-clean steps in PVD tools, resulting in annual savings of USD 50,000 due to reduced materials usage (Kuching).

Energy efficiency

At X-FAB, energy is mainly used in the form of electricity, whereas other sources play only a minor role. The production department has the highest energy consumption based on the advanced cleanroom conditions as well as the production process itself. In 2019, X-FAB's global energy consumption was at about 513 GWh, a slight increase due to the increase in production equipment. The share of non-renewable sources (oil, gas, coal, nuclear, etc.) was at 61%. Renewable energy sources (solar, wind, etc.) contributed 39%.

At the sites in Erfurt, Dresden, and Corbeil-Essonnes X-FAB has implemented an energy management system according to the requirements of ISO 50001:2011.

ISO 50001

This international standard specifies requirements for establishing, implementing, maintaining, and improving an energy management system, the purpose of which is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy use, and consumption.

This enables the assessment of improvement potentials of the Company's energy efficiency and their implementation in the daily work. Across the Company, different activities and projects exist to reduce energy consumption, which are part of the aforementioned annually renewed environmental goals.

X-FAB's permanent goal is to improve its energy efficiency and to reduce energy consumption at all sites resulting in different activities and projects, including:

- use of cold incoming raw water for cooling of process cooling water (PCW) for heat exchanges resulting in annual power savings of 888 MWh and cost savings of USD 112,000 per year (Erfurt). This project won the X-FAB Erfurt site environmental award;
- replacement of an old cooling tower with a new one providing cost savings of USD 50,000 per year (Dresden);
- replacement of an old boiler with new modular boilers resulting in a 25% boiler efficiency increase and annual savings of USD 64,500 through reduced maintenances and a 20% reduction in gas consumption (Lubbock);
- change of vacuum pump technology yielding an energy reduction of 150 MWh (Corbeil-Essonnes); and
- replacement of a fixed-speed dry air compressor with a variable speed compressor which is expected to reduce energy consumption by 950 MWh (Corbeil-Essonnes).

Such environmental goals are communicated during annual EHS weeks taking place at all sites.

Water

In 2019, X-FAB's production consumed roughly 20 liters of water per each cm² wafer area sold. The main part was used for cooling as well as for the supply and cleaning of production tools. Different sources of water supply are used including surface water, municipal water, and ground water.

Source	Amount in l/cm ²
River water	2.51
Ground water	5.84
Local water supplier	11.80
Total water withdrawal	20.16

Fig. 6.14: Total water withdrawal by source

13% of the water consumed was recycled. Besides the efforts to minimize energy consumption, internal projects exist that aim to reduce the amount of water consumed. Some examples include:

- replacement of three manually operated ion exchangers (>30 years) of a DI-water plant with two new automated units, resulting in USD 12,000 savings per year, water reduction of 2000 m³ per year, annual brine reduction of 22,500 kg, and an increased reliability of purified water quality (Dresden); and
- fluoride treatment optimization for future flexibility in capacity expansion resulting in water reduction of 34,675 m³ and USD 4,500, each per year (Corbeil-Essonnes).

After using water for production, the concentration of all substances is enhanced through vaporizing steps during the production process, including organic carbons (TOC). Their concentration is above the value that makes the water suitable for production purposes but far below the legal threshold for fresh water standards. Thus, the main part of the water is discharged, of which 58.7% (11.82 l/cm²) is discharged directly into the river and the remaining 13.8% (2.77 l/cm²) is sewage water. Around 18% of the water evaporates.

Greenhouse gases

Global climate change is an important challenge to all industrial players worldwide. X-FAB understands the climate impact from its operations on society and the global economy. Nevertheless, the use of greenhouse gases is inevitable for the production of microchips and sensors. Fig. 6.15 lists the total consumption of these gases. The total emissions for these gases amount to 28,000 metric tons calculated in CO₂ equivalents.

Gas	Amount in mg/cm ²
CHF ₃	3.84
CF ₄	20.95
C ₄ F ₈	2.37
C ₃ F ₈	0.54
C ₂ F ₆	77.62
SF ₆	9.53
NF ₃	66.78
N ₂ O	255.93

Fig. 6.15: Gas emissions by weight

It is X-FAB's intention to minimize the output of greenhouse gases. Therefore, each production site is equipped with state-of-the-art

cleaning systems. The functionality of these systems is tracked and linked to the production equipment using greenhouse gases. There are additional measurements at every site to confirm all regulations are followed. As a result, no significant spills of hazardous substances and greenhouse gases were found in the reporting period. Consumption of gas usage is monitored to ensure no wastages occur. X-FAB does not have an influence on emissions caused by goods deliveries since these are handled by the customers.

After X-FAB had postponed all cross-site workshops in 2019 as part of its cost-saving program, greenhouse gas emissions, in particular CO₂ emissions from air travel were significantly reduced with estimated savings of USD 2 million.

6.6 Supply chain

Selection and categorization of X-FAB suppliers

As a manufacturer of a large variety of products, X-FAB relies on a number of suppliers. It is part of the Company's corporate ethics to strive for a long-term partnership with them. The selection and auditing of suppliers is carried out by means of a global, cross-site procedure valid for all X-FAB sites. Part of this procedure is a classification of suppliers, based on, amongst others, the supplied quantity as well as the frequency of supply: Tier 1 suppliers, strategic suppliers, and all others that do not qualify for one of the two categories. In order to be approved as a new supplier, depending on the categorization, the supplier has to pass a process audit according to the requirements of automotive standard VDA 6.3 (the German Association of the Automotive Industry) and answer various questions, including on environmental topics. The existence of an environmental management system and compliance with RoHS or REACH are important criteria for X-FAB during the selection process for new suppliers.

X-FAB has a global approach towards the sourcing strategies of the main supplies to run the factories, and therefore, local suppliers are only taken into account if they meet the high-quality standards.

Furthermore, X-FAB recommends certification according to ISO 14001:2015 or IATF 16949:2016 to its suppliers and asks for their commitment to the ZVEI Code of Conduct. All X-FAB suppliers have to sign an agreement that they follow the ZVEI Code of Conduct. In 2019, X-FAB carried out 21 audits without finding any non-conformances with regards to the ZVEI Code of Conduct.

Continual improvement of suppliers

X-FAB stores all certificates and completed questionnaires from its suppliers in a database that is accessible for all X-FAB sites in order to improve the harmonization and standardization of supplier management. The most important suppliers are subject to a supplier assessment once a year. If X-FAB's requirements are not met by at least 85%, the supplier must submit proposals for improvement to stay under contract with X-FAB. In addition to these annual assessments, a regular audit exists to verify the existence of a management system.

RoHS and REACH

RoHS is the short form of the "Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment." It aims to address the global issue of consumer electronics waste. It pertains to manufacturing of various types of electronic and electrical equipment without the use of six different hazardous materials. It is the responsibility of the company that puts the product on the market to comply with the directive. REACH stands for Registration, Evaluation, Authorization, and Restriction of Chemicals. The purpose of this European Union regulation is to address the production and use of chemical substances and their potential impacts on both human health and the environment. Whereas RoHS bans substances that are present in electrical equipment, REACH pertains to all chemicals including those used to make a product. This can include materials, solvents, paints, chemicals, and more.

Furthermore, X-FAB has introduced a supplier award system to encourage its suppliers to continuously commit to environmental protection and social aspects. An annual Supplier Excellence award is granted to the best local supplier for each X-FAB site. On a global level, the supplier with the highest value in the supplier assessment receives the Supplier of the Year award.

Handling of conflict minerals

X-FAB is aware of the Dodd-Frank Act requirements regarding, among others, the sourcing of tin, tantalum, tungsten, and gold from conflict regions and is accepting its responsibility along the supply chain. Thus, X-FAB requests all its relevant suppliers to source minerals from regions that are conflict-free. The commitment of X-FAB suppliers to these requirements is documented in a central company database to ensure traceability and transparency.

In a product declaration, X-FAB asserts that to the best of its knowledge, X-FAB products do not contain materials that had been sourced from mines in conflict regions in the eastern region of the Democratic Republic of Congo. As the list of compliant gold, tungsten and tantalum smelters based on the Conflict-Free Smelter Program is still in progress, X-FAB will continuously work with its suppliers on this matter. All strategic material suppliers for materials containing tungsten, tantalum, tin, and gold must complete the Conflict-Free Smelter Reporting Template.

X-FAB's responsibility towards its customers and society

In line with its EHS policy, X-FAB continually works on the reduction of its environmental impact via legal compliances and also promotes human rights values amongst suppliers and customers. It is X-FAB's policy to ensure that all purchased materials are compliant with current government and safety constraints on restricted, toxic, and hazardous materials and that all environmental standards, applicable to the country of manufacture and sale, are fulfilled.

X-FAB follows RoHS and meets the requirements of REACH. X-FAB thereby confirms that all its products are halogen-free and do not

contain intentionally introduced lead (Pb), cadmium (Cd), mercury (Hg), hexavalent chromium (Cr6+), polybrominated biphenyl (PBB), or polybrominated diphenyl ether (PBDE). Finally, all products do not contain any of the substances in the Candidate List of Substances of Very High Concern.

There is a global procedure in place to control and avoid negative health and safety impacts, requiring that every X-FAB product is tested at every stage of development. In addition, all X-FAB products are inspected annually by an external institute for hazardous substances, and the Company's customers are informed about the results by means of product declarations.

It is part of the Company's ethics that products are not sold into countries that are listed on an embargo list for corresponding products. During 2019, X-FAB was compliant with laws in relation to this provision and use of X-FAB products and did not have to pay any fines for violations.

Customer data privacy

The protection of customer data is of highest importance to X-FAB and all stakeholders and is crucial to safeguarding X-FAB's reputation and brand. X-FAB currently does not apply a customer data deletion concept due to the adherence with the IATF automotive standard allowing deletion only after at least 15 years of inactivity. X-FAB deactivates data records whenever requested and has not received any customer complaints about data privacy. X-FAB applies an email opt-out system for customer data in terms of hotline news, webinars, and customer surveys. These are maintained via different technologies, including the ERP system, the survey and email marketing tool, either automated or semi-automated.

In order to test and further improve our information security management system, X-FAB Semiconductor Foundries GmbH and X-FAB Dresden GmbH & Co. KG were successfully certified according to ISO 27001 with regards to customer data. It is planned to expand the ISO 27001 certification process to additional X-FAB locations by 2021.



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X-FAB technologies for our future.

7. CORPORATE GOVERNANCE STATEMENT

The information included in this chapter has been prepared in order to comply with Articles 96 and 119 of the Belgian Companies Code (Articles 3:6 and 3:32 of the Belgian Code on Companies and Associations (BCCA)) with respect to the Board of Directors' annual report. Reference is made to chapter 10 with respect to the risk factors, chapter 6 for the non-financial information, chapter 1 for information on subsequent events, chapter 5 for the use of financial instruments, chapter 4 for information on research and development, and chapter 8 for transparency requirements related to the shareholder structure.

The Royal Decree of June 6, 2010 (published in the Belgian Official Gazette on June 28, 2010) designated the Belgian Code on Corporate Governance 2009 as the reference code for Belgian listed companies. This Code is available for download on the website of the Belgian Corporate Governance Committee (www.corporategovernancecommittee.be).

In view of the “comply-or-explain” principle of the Code, section 7.12 gives an overview of the provisions of the 2009 Belgian Code on Corporate Governance that X-FAB does not comply with, along with an explanation of the reasons for non-compliance.

X-FAB has already aligned its Corporate Governance Charter with the 2020 Code on Corporate Governance in the first quarter of 2020. The Corporate Governance Charter can be consulted on the “Investors” page of the Company's website.

As of January 1, 2020, the new BCCA applies. In this Corporate Governance Statement, however, we still refer at some instances to the articles of the old Belgian Companies Code (of May 7, 1999) as this was the applicable law during the reporting year.

7.1 Shareholders

X-FAB seeks to guarantee transparent and clear communication with its shareholders. Active participation of the shareholders is encouraged by X-FAB.

In order to achieve this goal, shareholders can find important and relevant information on X-FAB's website. X-FAB publishes its annual reports, half-year reports, statutory reports, quarterly results, and financial calendar on its website in the “Investors” section. X-FAB realizes that the publication of these reports and information benefits its trust-based relationship with its shareholders and other stakeholders.

Furthermore, X-FAB is committed to guaranteeing shareholder rights.

- At the shareholders' meeting, the Chairman will lead the meeting in such a manner that there will be sufficient time to answer questions that shareholders may have relating to the annual report, special reports, and/or the items on the agenda.
- At the latest 30 days prior to the general meeting, the agenda and other relevant documents are published in different locations including X-FAB's website and the Belgian Official Gazette.
- Shareholders representing at least 10% of the share capital have the right to add items and/or resolution proposals to the agenda.
- During the general meeting, shareholders have the right to vote on each item on the agenda. If they cannot attend the general meeting, they have the right to appoint a proxy.
- The minutes of the general meeting with the voting results will be kept in a special register after the general meeting.

Chapter 8 shows the shareholder structure of X-FAB based on the transparency notifications received.



Fig. 7.1: Christel Verschaeren, Roland Duchâtelet, Ling Qi, Christine Juliam, Datuk Amar Ahmad Tarmizi bin Haji Sulaiman, Rudi De Winter, Hans-Jürgen Straub, Estelle Iacona, Tan Sri Hamid Bin Bugo (from left to right)

7.2 Management structure

X-FAB has opted for a “one-tier” governance structure whereby the Board of Directors is the ultimate decision-making body, with overall responsibility for the management and control of the Company. The Board of Directors is vested with the power to perform all acts that are necessary or useful for the realization of the Company’s purpose, except for those actions that are specifically reserved by law or the Articles of Association to the shareholders’ meeting or other management bodies. As such, the Board, among others, defines the general policy orientations, decides on major strategic, financial, and operational matters, and oversees the management.

The Board has established committees (an Audit Committee and a Remuneration and Nomination Committee) to analyze specific issues and advise the Board on those issues. The decision-making power remains within the responsibility of the Board of Directors itself.

The daily management of X-FAB has been delegated by the Board of Directors to the Chief Executive Officer, Sensinnovat BV, permanently represented by Rudi De Winter, who can represent the Company with his sole signature within and outside the framework of the daily management. For actions that fall outside the scope of the daily management, X-FAB is also validly represented by two directors acting jointly.

The Chief Executive Officer is the chairman of the Executive Management. The Executive Management is responsible for leading X-FAB in accordance with the global strategy, values, planning, and budgets as set out and

approved by the Board of Directors. The Executive Management is also responsible for screening the various risks and opportunities that the Company might encounter in the short, medium, or longer term, as well as for ensuring that systems are in place to identify and address these risks and opportunities.

7.3 Board of Directors

Composition

In accordance with Article 15 of X-FAB’s Articles of Association, the Board of Directors consists of at least five members and may be comprised of a maximum of nine members. At least three members should be independent in accordance with Article 526ter of the Companies Code (Article 7:87 BCCA). As of the date of this annual report, the Board of Directors comprises nine members, four of which are indeed independent.

At least half of the Board of Directors consists of non-executive members and there is at least one executive member. Independent directors qualify as non-executive directors.

The term of office of directors under Belgian law is limited to six years (renewable) but the Corporate Governance Code recommends that it be limited to four years. Directors of X-FAB are appointed for a period of four years by the majority of the votes cast at the general meeting, after having received a recommendation of the Remuneration and Nomination Committee. In the same way the general meeting may revoke a director at any time. There is no age limit for directors, and directors with an expiring mandate can be re-appointed within the limits stipulated in the Companies Code.

The Chief Executive Officer is the only member of the Board of Directors that has an executive mandate. The Chairman of the Board is Datuk Amar Ahmad Tarmizi Bin Haji Sulaiman.

On October 25, 2018, the Board of Directors decided unanimously, upon recommendation of the Remuneration Committee, to nominate Ling Qi as independent director. The shareholders' meeting of April 25, 2019, confirmed the appointment of Vlinvlin BV, permanently

represented by Ling Qi as independent director for a period of four years, ending immediately after the annual shareholders' meeting deciding on the annual accounts for the financial year ending on December 31, 2022.

The composition of the Board of Directors already takes into account Article 518bis of the Companies Code (Article 7:86 BCCA) which requires that one third of its members have to be of a different gender.

The directors of X-FAB are:

Name	Age	Mandate expires	Position
Datuk Amar Ahmad Tarmizi bin Haji Sulaiman	57	2021	Chairman of the Board (non-executive director)
Sensinnovat BVBA (Represented by Rudi De Winter)	59	2021	Managing Director, CEO
Roland Duchâtelet	73	2021	Non-executive director
Thomas Hans-Jürgen Straub	65	2021	Non-executive director
Tan Sri Dr. Hamid Bin Bugo	74	2021	Non-executive director
Aurore NV (Represented by Christine Juliam)	59	2022	Non-executive and independent director
Christel Verschaeren	55	2021	Non-executive and independent director
Estelle Iacona	47	2021	Non-executive and independent director
Vlinvlin BV (Represented by Ling Qi)	49	2023	Non-executive and independent director

Datuk Amar Ahmad Tarmizi bin Haji Sulaiman, Chairman, is the State Financial Secretary of the Malaysian State of Sarawak since July 1, 2004. Prior to his current appointment, he was the Deputy State Financial Secretary of the Malaysian State of Sarawak since October 1, 2002. He served as the Chief Executive Officer of Amanah Saham Sarawak Berhad from August 1993 to September 2002. He was the fund manager at Arab-Malaysian Merchant Bank Berhad and, following that, American International Assurance. He is currently also a board member of several corporate and governmental agencies. He has a degree in business administration from Syracuse University, New York, and a master's in business administration from the University of Wisconsin, USA.

Sensinnovat BV is represented by Rudi De Winter. Mr. De Winter joined X-FAB in 2011 as Co-CEO and became CEO in 2014. Between 1996 and 2011 he served as the Chief Executive Officer and Managing Director of Melexis NV. Prior to that date, Mr. De Winter served as a devel-

opment engineer at Mietec Alcatel (Belgium) from 1984 to 1985 and as a development manager at Elmos GmbH (Germany) from 1985 to 1989. In 1990, Mr. De Winter became director together with Mr. Duchâtelet of Xtrion NV, the parent company of X-FAB. Mr. De Winter holds a degree in electronic engineering from the University of Ghent. Mr. De Winter is married to Ms. Chombar, the Chief Executive Officer and Managing Director of Melexis NV.

Roland Duchâtelet started his career serving in various positions in production, product development, and marketing functions for several large and small companies. He contributed to the start-up of two other semiconductor manufacturers: Mietec Alcatel (Belgium) from 1983 to 1985 as business development/sales manager and Elmos GmbH (Germany) from 1985 to 1989 as marketing manager. Mr. Duchâtelet is the co-founder of the parent company of X-FAB. He holds a degree in electronic engineering and applied economics and an MBA from the University of Leuven.

Thomas Hans-Jürgen Straub has more than 30 years of experience in the management of semiconductor companies. From 1982 to 1990, Mr. Straub served as Head of Central Planning at the Kombinat Mikroelektronik in Erfurt. Thereafter, Mr. Straub was a member of the managing board of PTC Electronic AG, a holding company that managed 18 subsidiaries. From 1991 to 1999, Mr. Straub served as president of several companies, including Mikroelektronik und Technologie-Gesellschaft mbH, Dresden and Thesys Gesellschaft für Mikroelektronik mbH, Erfurt. From 1999 to 2014, Mr. Straub served as Chief Executive Officer of X-FAB. Mr. Straub holds a diploma in economics from the Hochschule für Ökonomie Berlin (Berlin Business School).

Tan Sri (Dr.) Hamid Bugo has worked as personnel manager for Malaysia LNG Sdn. Bhd. (a joint venture between Petronas, Shell and Mitsubishi), as the first General Manager of the Land Custody and Development Authority of Sarawak, Permanent Secretary to the Ministry of Resource Planning and State Secretary of Sarawak. He has also served as a board member of several corporate and government agencies including Malaysian Anti-Corruption Commission, Malaysia National Water Council, Employees Provident Fund, Sime Darby Berhad, and Malaysia LNG Sdn. Bhd. Currently he sits on the Board of Sapura Energy Berhad, and chairs Sarawak Consolidated Industries Berhad, Sarawak Petroleum Berhad, and Sapura Resources Berhad. Tan Sri (Dr.) Bugo was a Colombo Plan Scholar and graduated with a master's degree in economics and political science from Canterbury University, New Zealand. He was awarded an honorary PhD in commerce by Lincoln University, New Zealand.

Aurore NV is represented by Christine Juliam. She started her career in clinical research at MSD in Belgium before moving into product management, and subsequently into sales, marketing, and business planning responsibilities. In July 1996, she started to work for Abbott Belgium as director of its pharmaceutical product division and joined Nycomed as Managing Director Belgium/Luxembourg in 2006. From 2011 onwards she was Region

Head for France, the Netherlands, Belgium, and Luxembourg for Nycomed, which was acquired by Takeda in the same year. Subsequently, Ms. Juliam managed Takeda Italy and France as country manager between 2013 and 2017. Christine Juliam has a doctor of medicine degree from the University of Ghent, a license in marketing from St. Aloysius College in Brussels, a master's in management from Solvay Commercial School in Brussels, and an MBA from Northwestern University.

Christel Verschaeren served for 29 years at IBM. She held different technical positions as well as commercial leadership positions in general business, channel sales, and inside sales. She led business operations for IBM Belgium/Luxembourg for three years. In 2005, she became Director of Business Transformation and IT for IBM Europe. From 2010 until 2012 she served as Director Global Organizational Change Management. From 2012 until 2016 she was the VP of CIO Services in EMEA. Ms. Verschaeren holds a master's in economics from the University of Antwerp.

Estelle Iacona was a director of EM2C laboratory (CNRS, École Centrale Paris) from 2008 to 2012 after which she became Dean and Vice-President Research of the École Centrale Paris until December 2014. In 2014, she also became Dean and Vice-President Research and Industrial Partnership of the École Supérieure d'Électricité (Supélec) in Paris. From January 2015 until September 2016 she was the Dean and Vice-President Research of the CentraleSupélec. Currently, Ms. Iacona is Executive Vice-President for Academic Affairs and Research Professor in the CentraleSupélec and member of the board of École Centrale Casablanca. Ms. Iacona holds an engineering degree and a master of science from the University of Nantes (Polytech'Nantes) and a PhD in physics of transfer from the École Centrale Paris.

Vlinvlin BV is represented by Ling Qi. She has more than 20 years of international business management experience in China. After she won a provincial English language competition among thousand contenders, she organized international trade fairs and trade missions for

the city government of Shenyang, and was the personal translator of the Mayor of Shenyang. She left politics to host a weekly TV program with news and interviews of foreign expats in China. In 1996, her media career went on as vice-president and international marketing and sales responsible of the animation film company OHY. In 2000, Ms. Ling Qi married Belgian director Wouter Dierickx and founded Sophie Animation Ltd. Currently, Ms. Ling Qi is CEO of two mid-size multi-media and animation film companies. Next to the media business, Ms. Ling Qi has been consultant for foreign invested companies in China and a Belgian private bank. She holds a degree in international trade and English at the University of Liaoning, and obtained a certificate of Dutch at UFSIA Antwerpen.

Appointment and replacement of directors

The Articles of Association (Article 16) and the X-FAB Corporate Governance Charter contain specific rules concerning the (re)appointment, the induction, and the evaluation of directors. Directors are appointed for a term not exceeding four years by the general meeting of shareholders, who can also revoke their mandate at any time. An appointment or dismissal requires a simple majority of the votes cast.

If and when a position of a director prematurely becomes vacant within the Board, the remaining directors have the right to temporarily appoint a new director until the next general meeting which shall confirm such appointment. Said appointment will then be included in the agenda of the next general meeting.

The Remuneration and Nomination Committee makes recommendations to the Board with regard to the appointment of directors, the CEO, and the other members of the Executive Management. The Committee will consider proposals made by the members of the Board or other relevant parties.

Functioning of the Board

The internal regulation of the Board is part of the Corporate Governance Charter. In principle, the Board of Directors meets on a quarterly basis. Additional meetings may be called

with appropriate notice at any time to address specific needs of the business. A meeting of the Board of Directors must in any event be convened if requested by at least two directors.

The Board convened seven times in 2019 and discussed, among others, the following topics:

- financial results of the Group;
- purchasing strategy;
- R&D activities and strategy;
- intercompany financing;
- transfer pricing aspects;
- budget for the financial years 2020–2022; and
- changes in the Executive Management.

Datuk Amar Ahmad Tarmizi Bin Sulaiman was excused for one meeting of the Board and was represented by a proxyholder at three other meetings. Thomas Hans-Jürgen Straub was excused for one meeting and represented by proxy at one other meeting of the Board. Christel Verschaeren was represented by proxy at one meeting. Tan Sri Hamid Bin Bugo and Roland Duchâtelet could not attend one meeting of the Board.

Under the lead of the Chairman, the Board regularly evaluates its scope, composition, and performance and that of its committees, as well as the interaction with the Executive Management. In 2019, the Board conducted an evaluation via an anonymous survey complemented by an open discussion of the results thereof. No issues have been identified.

7.4 Committees

Audit Committee

The Audit Committee advises the Board of Directors on accounting, audit, and internal control matters as further detailed in the Company's Corporate Governance Charter. The Audit Committee also assists the Executive Management in its assessment and follow-up of the auditor's recommendations.

The Audit Committee is composed of four non-executive members: Tan Sri Hamid Bin Bugo, Chairman; Aurore NV, represented by Christine Juliam, independent director; Chris-

tel Verschaeren, independent director; and Estelle Iacona, independent director.

According to Article 526bis, section 2 of the Belgian Companies Code (Article 7:99 BCCA) the members of the Audit Committee maintain a collective expertise in the field of the Company's activities. At least one of them shall have accounting and audit expertise. Given his education as well as extensive experience as a board member for a number of different companies, Tan Sri Hamid Bin Bugo complies with this requirement.

In 2019, the Audit Committee met four times. During these meetings the audit plan and key audit matters were discussed with the external auditor. Other topics covered were the results of the internal audit. With the exception of one meeting, from which Tan Sri Hamid Bin Bugo was excused, all members of the Audit Committee as well as the external auditor attended all meetings. The internal auditor was present at two meetings.

7.5 Executive Management

Composition

The Executive Management is composed of the following members:

Name	Age	Position
Rudi De Winter	59	Chief Executive Officer
Alba Morganti	51	Chief Financial Officer
Dr. Manfred Riemer	64	Chief Operating Officer
Dr. Jens Kosch	59	Chief Technology Officer
Mike Young	59	Chief Executive Officer, X-FAB Sarawak (until September 30, 2019)
Lee Boon Chun	50	Chief Executive Officer, X-FAB Sarawak (as of October 1, 2019)
Dr. Dirk Drescher	54	Chief Executive Officer, X-FAB France Chief Executive Officer, X-FAB Dresden (until October 22, 2019)
Lloyd Whetzel	62	Chief Executive Officer, X-FAB Texas
Rico Tillner	37	Chief Executive Officer, X-FAB Dresden (as of October 23, 2019)

Remuneration and Nomination Committee

The Remuneration and Nomination Committee advises the Board of Directors principally on matters regarding the appointment and remuneration of directors and members of the Executive Management.

The Remuneration and Nomination Committee is composed of four non-executive members: Christel Verschaeren, Chairman; Aurore NV, represented by Christine Juliam, independent director; Tan Sri Hamid Bin Bugo, non-executive director; and Estelle Iacona, independent director.

The Remuneration and Nomination Committee met six times in 2019. During these meetings matters such as the remuneration of the Executive Management and the variable bonus scheme were discussed, as well the succession of certain members of the Executive Management. Tan Sri Hamid Bin Bugo was excused for one meeting and Christel Verschaeren was represented by proxy at another meeting of the Remuneration and Nomination Committee.

Functioning

The Executive Management Team is composed of the CEO, the CFO, the COO, the CTO, and the site managers of X-FAB France, X-FAB Sarawak, X-FAB Texas, and X-FAB Dresden. The members are appointed and removed by the Board of Directors after having received the advice of the CEO and the Remuneration and Nomination Committee.

The Executive Management Team exercises the duties assigned to it by the Board of Directors and the CEO, under the ultimate supervision of the Board of Directors.

The CEO leads the Executive Management Team, within the framework established by the Board of Directors and under its ultimate supervision. The CEO chairs the Executive Management Team.

7.6 Diversity policy

At the end of the reporting year, four of the nine members of the Board are female, thereby reaching the best possible equilibrium. The composition of the Board is in line with the requirements of the Belgian Companies Code on diversity.

In the light of their proven track record, X-FAB continues to be managed by mostly the same Executive Management team that managed the business prior to the initial public offering. Nevertheless, X-FAB will continue to optimize its recruitment policy and will consider gender diversity in future recruitments. In 2019, Rico Tillner joined the Executive Management as CEO of X-FAB Dresden after having worked for X-FAB Dresden for almost 14 years. Also, Lee Boon Chun became an Executive Manager to replace Mike Young in X-FAB Sarawak.

7.7 Remuneration report

Remuneration of directors

The remuneration policy of the directors is determined by the shareholders' meeting. The Company's non-executive directors are remunerated for their services with a fixed annual compensation for attending Board meetings, as well as meetings of the Remuneration and Nomination Committee and the Audit Committee in which they are appointed. X-FAB strives to set the remuneration in such a way to ensure the right people can be attracted and to ensure directors can spend sufficient time on their mandate. The remuneration policy will not materially change in the next two financial years.

If members of the Executive Management are appointed as director in the Board, their director mandate will not be remunerated, but they will receive remuneration for their executive duties within the Company.

The general meeting approved a fixed annual remuneration of EUR 15,000 (USD 16,796), an additional annual remuneration of EUR 5,000 (USD 5,599) for each membership in a Board committee as well as a reimbursement of reasonable costs to attend the Board and/or committee meetings. The directors are expected to uphold the expenditure policy within X-FAB and to submit suitable justification for their costs. Roland Duchâtelet waived his right to receive any remuneration as a non-executive Board member. In 2019, X-FAB paid in total USD 162,364 as remuneration to the non-executive directors and USD 35,273 as reimbursement of costs as follows:

Name	Remuneration (in USD)	Costs (in USD)
Datuk Amar Ahmad Tarmizi bin Haji Sulaiman	USD 16,796	USD 16,796
Roland Duchâtelet	-	-
Thomas Hans-Jürgen Straub	USD 16,796	-
Tan Sri Hamid Bin Bugo	USD 27,994	USD 16,796
Aurore NV (represented by Christine Juliam)	USD 27,994	-
Christel Verschaeren	USD 27,994	-
Estelle Iacona	USD 27,994	USD 1,423
Vlinvlin BV (represented by Ling Qi)	USD 16,796	USD 258

The reimbursement of costs for Datuk Amar Ahmad Tarmizi bin Haji Sulaiman and Tan Sri Hamid Bin Bugo mainly result from traveling expenses given that both members have to travel from Malaysia. For Estelle Iacona and Ling Qi the reimbursed costs also represent travel expenses.

The performances of directors are evaluated by the Board of Directors to ensure that only persons with competences matching X-FAB's international ambitions are nominated as director.

Remuneration of Executive Management

The Board, upon recommendations by the Remuneration and Nomination Committee, decides on the policy governing the remuneration of the CEO and of the other members of the Executive Management Team, including any share-based or other incentives (without prejudice to the powers of the shareholders' meeting, to the extent applicable). In fixing compensation levels for the Executive Management, both the market pay levels and internal practices are considered.

The remuneration of the Executive Management is designed to:

- ensure that the Company can continually attract, motivate, and retain high-caliber and high-potential executive talent for which the Company competes internationally;
- promote the achievement of Board approved performance goals and targets, aligned with building stakeholder value over the short and longer term; and
- stimulate, recognize, and reward strong individual contribution and team performance.

The Articles of Association, as allowed under the Belgian Companies Code, authorize the Company to deviate from the following rules set out in Article 520ter of the Belgian Companies Code (Article 7:91 BCCA):

- in the event that the variable remuneration constitutes more than 25%, at least 25% of the variable remuneration must relate to predetermined and objectively measurable performance criteria deferred over a

minimum period of two years, and at least another 25% must relate to such criteria deferred over a minimum period of three years; and

- in respect of share-based remuneration, shares can only vest and options giving the right to receive shares or any other rights to acquire shares can only be exercisable as from three years after the grant.

The compensation of the members of Executive Management combines three integrated elements: base salary, variable pay, and other benefits.

The base salaries remain in line with market average. Variable pay payments are dependent on the Company's performance and the individual/team performance measured through the achievement of pre-established targets. They can vary up to 60% of the annual base salary, except for the CEO, who can potentially receive a variable pay up to 50% of his annual base salary. Variable pay is paid out in cash. No shares, options, or other rights to acquire shares are granted as part of the compensation. The other benefits concern only a smaller part of the total compensation of the Executive Management.

The Remuneration and Nomination Committee evaluates the performance of the CEO and discusses with the CEO the performance of the other members of the Executive Management.

The Remuneration and Nomination Committee then makes recommendations to the Board of Directors with respect to the compensation level of the CEO and the other members of the Executive Management based on performance outputs and a benchmark analysis of compensation levels for similar positions at comparable companies. The Company has not materially deviated from its remuneration policy during the reported financial year and has no plans to materially change the policy in the next two financial years other than changing the evaluation period of the variable pay of the CEO.

CEO

The remuneration of the CEO will be based on recommendations made by the Remuneration and Nomination Committee. The remuneration is determined by the Board of Directors.

Of all the members of the Executive Management only the CEO is also a member of the Board of Directors. The CEO does not receive additional remuneration for this mandate.

The remuneration of the CEO is composed of a fixed and a variable amount. The variable pay of the CEO may vary up to 50% of the determined fixed compensation. The annual variable pay opportunities are determined by (i) global business performance measured through revenue growth and EBIT growth, which represents a 50% opportunity of the total variable pay, and (ii) an assessment of individual performance measured through

achievement of pre-established targets, which represents a 50% opportunity of the total variable pay.

The variable pay of the CEO is determined over a multi-year payout period: (i) 50% of the variable pay will be based on performance criteria measured over the performance year itself; (ii) 25% of the variable pay will be based on performance criteria measured over two financial years; and (iii) 25% of the variable pay will be based on performance criteria measured over three financial years. The funding levels for the annual variable pay are dependent on the Company's performance against approved financial targets.

Any variable pay granted to the CEO over and above the base remuneration is revocable.

In 2019, the CEO received fixed remuneration amounting to USD 279,800 and a variable pay compensation of USD 34,969.

Sensinnovat BVBA (represented by Rudi De Winter)	Remuneration 2019 (in USD)
Base remuneration	USD 279,800
Variable remuneration	USD 34,968.75*
Pension	-
Extra-legal arrangements	-
Reimbursement of costs	-

*Note: the variable remuneration represents the amount paid in 2019 for performance in 2018

The CEO does not benefit from contributions to a pension scheme, nor does he have any extra-legal arrangements through an individual/group insurance paid for by the Company, nor does he receive any other fringe benefits.

Other Executive Managers

The total amount of the fixed remuneration of the other members of the Executive Management amounted to USD 1,272,599 in 2019. The total of the 2019 variable pay component payouts amounted to USD 184,692.

Executive Managers	Remuneration 2019 (in USD)
Base remuneration	USD 1,272,598.55
Variable remuneration	USD 184,691.55*
Pension	USD 65,908.51
Extra-legal arrangements	USD 89,970.89
Reimbursement of costs	USD 68,811.95

*Note: the variable remuneration represents the amount paid in 2019 for performance in 2018

The Executive Management variable pay scheme does not include a multi-year payout horizon so far.

The annual variable pay opportunities of the Executive Management, except for the CEO, can constitute up to maximum 60% of the annual base remuneration and include (i) a global business performance measured through revenue growth and EBIT growth, which represents a 50% opportunity of the total variable pay; and (ii) an assessment of individual performance measured through achievement of pre-established targets, which represents a 50% opportunity of the total variable pay. The evaluation period for both components was the preceding year.

In the event that any variable remuneration would be paid based on incorrect financial data, such miscalculation could be compensated with the payment of future remuneration.

The members of the Executive Management working under an employment contract also benefit from extra-legal arrangements through a group insurance that is in effect in their respective home countries, i.e. pension, life insurance, disability, and medical insurance, all defined contribution schemes. All these group insurance elements are in line with home country market practices and only represent a minor portion of their remuneration.

Members of the Executive Management have contractual agreements with the Company or with a subsidiary of the Company that provide for severance payments in case of termination of the contract in line with the applicable laws of the country where the Company or its subsidiary is located.

In 2019, one member of the Executive Management Team, Mike Young (CEO of X-FAB Sarawak), decided to take on another challenge outside X-FAB.

Outlook

For the next financial years onwards, the Board of Directors determined, upon recommendation of the Remuneration and Nomination Committee, a remuneration policy which will be posted on the website of X-FAB. It will submit the policy to the annual general meeting on April 30, 2020. If approved, this policy will apply to the remuneration of directors and Executive Management from the financial year 2020 onwards. The remuneration policy is intended to be applied for several years. The policy shall, however, be analyzed on an annual basis by the Remuneration and Nomination Committee in close cooperation with the HR department.

The remuneration report for financial year 2020 will be prepared in accordance with the requirements of Directive 2007/39/EC on the exercise of certain rights of shareholders in listed companies and Belgian implementation thereof.

7.8 Policy on certain transactions

Conflicts of interest of the Board of Directors

According to Article 523 of the Companies Code a member of the Board of Directors has to inform the other directors about any item on the agenda of the Board that will cause a direct or indirect conflict of interest of a financial nature to him/her. In this event the respective director may not participate in the deliberation and voting on this agenda item.

Pursuant to Article 524 of the Belgian Companies Code, companies listed on the stock exchange must follow a special procedure before decisions are taken or operations are executed concerning (i) the relations of the listed company with an affiliated company, except its subsidiaries, and (ii) the relations between a subsidiary of the listed company and an affiliated company of the subsidiary, other than a subsidiary of the subsidiary. Prior to the decision or transaction, a committee composed of three independent directors, assisted by one or more independent experts, must prepare written advice for the Board of Directors.

The auditor delivers an opinion regarding the accuracy of the information contained in the committee advice and in the minutes of the Board of Directors' decision. The advice of the Committee, an excerpt from the minutes of the Board of Directors, and the opinion of the auditor have to be recorded in the annual report of the Company.

In 2019, there have been no conflicts of interest for which the procedure of Articles 523 or 524 of the Companies Code needed to be applied.

Other transactions with directors and Executive Management

As determined by section 3.6.2 (a) of the X-FAB Corporate Governance Charter, members of the Board of Directors should arrange their personal and business affairs in such a way as to avoid conflicts with X-FAB. Moreover, the members of the Board of Directors and the Executive Management are not permitted to enter, either directly or indirectly, into agreements with X-FAB or any of its subsidiaries for the provision of paid services or goods, unless explicitly authorized by the Board of Directors. Such agreements must always be at arm's length. Please refer to note 11 on related party transactions.

In 2019, there were no transactions between the Company and its directors or Executive Managers involving a conflict of interest. All related party transactions were made on terms equivalent to those that prevail in arm's length transactions.

Insider trading

In compliance with the Belgian Corporate Governance Code 2009 and EU regulation on market abuse (EU No. 596/2014) the X-FAB Insider Trading Policy was updated in 2017. A summary of the Dealing and Disclosure Code has been incorporated into the Corporate Governance Charter of X-FAB. The Dealing and Disclosure Code was approved by the Board of Directors on March 17, 2017.

X-FAB complies with the Belgian provisions on insider trading and market abuse. In this respect a list is kept up to date of all people with managerial responsibilities as well as all other people who have access to sensitive information which could have an effect on the share price.

The purpose of the X-FAB Insider Trading Policy is to prevent the abuse of inside information. Before trading any company shares, the members of the Board and the Executive Management have to receive the green light from the Compliance Officer and have to report back once the transaction has been completed. Furthermore, the members of the Board and the Executive Management as well as their closely associated persons have to notify all their transactions above a certain threshold in X-FAB shares to the Belgian Financial Services and Markets Authority, which will publish these notices on its website.

Compliance with the X-FAB Insider Trading Policy will be supported and verified by the Compliance Officer.

7.9 Internal control and risk assessment procedures in relation to financial reporting

The internal control and risk assessment procedures in relation to the process of financial reporting are coordinated by the CFO. Such procedures are in place to ensure that the financial reporting is based on reliable information and that the continuity of the financial reporting in conformity with the IFRS accounting principles is guaranteed.

The process of internal control in relation to the financial reporting is based on the following principles:

- Data on transactions or use of assets of the Company are registered accurately and saved in an automated global enterprise resource planning (ERP) system by the different X-FAB business units.
- Accounting transactions are registered in globally standardized operating charts of accounts.
- The financial information is prepared and reported in first instance by the accounting teams in the different legal entities of X-FAB worldwide.
- Consequently, the finance managers at the different X-FAB sites will review the prepared and reported local financial information before sending it to the Global Finance Department.

- In the Global Finance Department, the financial information will receive its final review before it is included in the consolidated financial statements.

X-FAB is validly represented by the sole signature of the CEO for all aspects within and outside the daily management of the Company. Specific powers are granted to members of the Executive Management to represent X-FAB in matters that relate to the functional area for which they are responsible. For actions that fall outside the scope of the daily management, the Company is validly represented by two directors acting together.

In the event of the detection of certain deficiencies, this will be reported to the Executive Management to determine which appropriate measures can be taken.

The risk assessment in connection with the financial reporting is based on the following principles:

- Risks that the Company is confronted with are detected and monitored by the responsible persons of the different departments of the Company.
- The automated ERP system provides the responsible persons of the departments with permanent access to the financial information relevant to the business activities of their functional area for monitoring, controlling, and directing purposes.
- Closing the accounts at the end of every month warrants that the financial consequences of the identified risks are monitored closely to be able to anticipate to possible adverse evolutions.
- The financial results are also reviewed monthly on a global level.
- A data protection system based on antivirus software, internal and external backup of data, and the controlling of access rights to information protects the Company's information and guarantees the continuity of the financial reporting. The adequacy and integrity of these IT systems and procedures are reviewed regularly.

- In accordance with the 2009 Belgian Code on Corporate Governance X-FAB has set up an internal audit function for its financial department, whose resources and skills are adapted to assess the financial reporting and the risk management of the Company. The Audit Committee receives a periodic summary of the internal audit activities.

7.10 Description of certain information from the Articles of Association and elements pertinent to a takeover bid

Capital structure

The registered capital of X-FAB amounts to EUR 657,456,850.68 and is represented by 130,781,669 equal shares without par value. The shares are in registered or dematerialized form.

Restrictions on the transfer of securities

The Articles of Association contain no restrictions on the transfer of the shares. The Board of Directors is furthermore not aware of any restrictions imposed by law on the transfer of shares by any shareholder, except in the framework of market abuse regulations.

Restrictions on the exercise of voting rights

Each share entitles the holder to one vote. The Articles of Association contain no restrictions on the voting rights and each shareholder can exercise their voting rights provided they are validly admitted to the general meeting and their rights have not been suspended. Pursuant to Article 11 of the Articles of Association the Company is entitled to suspend the exercise of the rights attaching to securities belonging to several owners until one person is appointed towards the Company as representative of the security.

No one can vote at the general meeting using voting rights attached to securities that have not been reported in due time in accordance with the Articles of Association and with the law.

The Board is not aware of any other restrictions imposed by law on the exercise of voting rights.

Agreements among shareholders

XTRION NV and Sarawak Technology Holdings Sdn. Bhd. have entered into a shareholders' agreement as shareholders of X-FAB (the "Shareholders' Agreement").

The Shareholders' Agreement applies for as long as each of the shareholders holds more than 5% of the shares in X-FAB. The Shareholders' Agreement addresses certain matters relating to the governance of X-FAB as well as the transfer of shares in X-FAB held by the parties to this Shareholders' Agreement.

Pursuant to the terms of the Shareholders' Agreement, XTRION NV and Sarawak Technology Holdings Sdn. Bhd. each have the right to appoint two directors on the Board of Directors. The Shareholders' Agreement furthermore provides for certain restrictions on the ability of XTRION NV and Sarawak Technology Holdings Sdn. Bhd. to transfer their shares in X-FAB.

Amendments to the Articles of Association

Matters involving special legal quorum requirements include, among others, amendments to the Articles of Association, issues of new shares, convertible bonds, or warrants and decisions regarding mergers and demergers, which require at least 50% of the share capital to be present or represented. If the quorum is not reached, a second meeting may be convened at which no quorum shall apply.

Matters involving special majority requirements include, among others, decisions regarding mergers and demergers, which require a majority of at least 75% of the votes cast.

Authorities of the Board to issue, buy back, or dispose of own shares

The Articles of Association foresee that the Board of Directors may increase the registered capital of the Company in one or several times by a (cumulated) amount of maximum EUR 657,456,850.68. Such authorization may be renewed in accordance with the relevant legal provisions. The Board of Directors can exercise this power for a period of five (5) years as from the date of publication in the Annexes to the Belgian

State Gazette of the amendment to these Articles of Association approved by the shareholders' meeting on March 16, 2017 (i.e. April 26, 2017).

The Board of Directors is further authorized by Article 13 of the Articles of Association to acquire own shares in the Company, either directly, by a person acting in his/her own name on behalf of the Company or by a direct subsidiary within the meaning and the limits set out by Article 627, indent 1 of the Companies Code, under the following conditions:

- This authorization applies for a number of own shares, profit-sharing certificates, or associated certificates that is at most equal to that which, after acquisition, results in a total number of own shares held by the Company equal to the set limit of 20% as stipulated in Article 5 of the SE Regulation juncto Articles 620 ff. of the Companies Code (Article 7:215 ff. BCCA).
- Under this authorization a share should be acquired at a price that will respect the legal requirements, but that will in any case not be more than 10% below the lowest closing price in the last 30 trading days preceding the transaction and not more than 5% above the highest closing price in the last 30 trading days preceding the transaction.
- This authorization is valid for five years from March 16, 2017.

By resolution of the shareholders' meeting held on March 16, 2017 the Board of Directors is also authorized, subject to compliance with the provisions of the Companies Code, to acquire for the Company's account the Company's own shares, profit-sharing certificates, or associated certificates if such acquisition is necessary to avoid serious and imminent harm to the Company. Such authorization is valid for three years as from the date of publication of the authorization in the Annexes to the Belgian State Gazette (i.e. April 26, 2017).

By resolution of the shareholders' meeting held on March 16, 2017, the Board of Directors is authorized to divest itself of part of or all the Company's shares, profit-sharing certificates, or associated certificates.

- This can be done at any time and at a price it determines, on or outside the stock market or in the framework of its remuneration policy, to employees, directors, or consultants of the Company or to prevent any serious and imminent harm to the Company.
- The authorization covers the divestment of the Company's shares, profit-sharing certificates, or associated certificates by a direct subsidiary within the meaning of Article 627, indent 1 of the Companies Code (Article 7:221 BCCA).
- The authorization is valid without any time restriction, except when the divestment is to prevent any serious and imminent harm, in which case the authorization is valid for three years as from the date of publication of the authorization in the Annexes to the Belgian State Gazette (i.e. April 26, 2017).

Authorities of the Board to proceed with a capital increase

As per the Articles of Association, the Board of Directors is expressly empowered to proceed with a capital increase in any and all forms, including but not limited to a capital increase accompanied by the restriction or withdrawal of the preferential subscription rights, even after receipt by the Company of a notification by the Financial Services and Markets Authority (FSMA – “Autoriteit voor Financiële Diensten en Markten”/“Autorité des Services et Marchés Financiers”) of a takeover bid for the Company's shares. Where this is the case, however, the capital increase must comply with the additional terms and conditions laid down in Article 5 of the SE Regulation juncto Article 607 of the Companies Code (Article 7:221 BCCA). The powers conferred on the Board of Directors remain in effect for a period of three years from the date of the amendment to the Articles of Association approved by shareholders' meeting held on March 16, 2017. These powers may be renewed for a further period of three years by resolution of the shareholders' meeting, deliberating, and deciding in accordance with applicable rules. If the Board of Directors decides upon an increase of authorized capital pursuant to this authorization, this increase will be deducted from the remaining part of the authorized capital.

Other elements

The Company has not issued securities with special control rights.

No agreements have been concluded between the Company and its directors or employees providing for compensation if, as a result of a takeover bid, the directors should resign or are made redundant without valid reason or if the employment of the employees is terminated.

7.11 Auditor

KPMG Bedrijfsrevisoren CVBA, whose registered office is situated at 1930 Zaventem, Lucht-haven, Brussel Nationaal 1K, was appointed as statutory auditor of the Company. Mr. Herwig Carmans, auditor, was appointed as the permanent representative of the auditor.

The mandate of KPMG Bedrijfsrevisoren CVBA was renewed for three years at the annual shareholders' meeting held on March 16, 2017.

The consolidated annual fee for this mandate amounted to USD 384,000 in audit fees, VAT excluded. In 2019, the additional fees for other services amounted to USD 87,000 VAT excluded. Non-audit related services mainly relate to certification engagements and tax compliance services. Reference is made to note 7.7.

7.12 Compliance with the 2009 Belgian Code on Corporate Governance

X-FAB complies with the principles of the 2009 Belgian Code on Corporate Governance. In view of the “comply-or-explain” principle of the Code the following overview sets out the provision of the Code that X-FAB does not comply with, along with an explanation of the reasons for non-compliance:

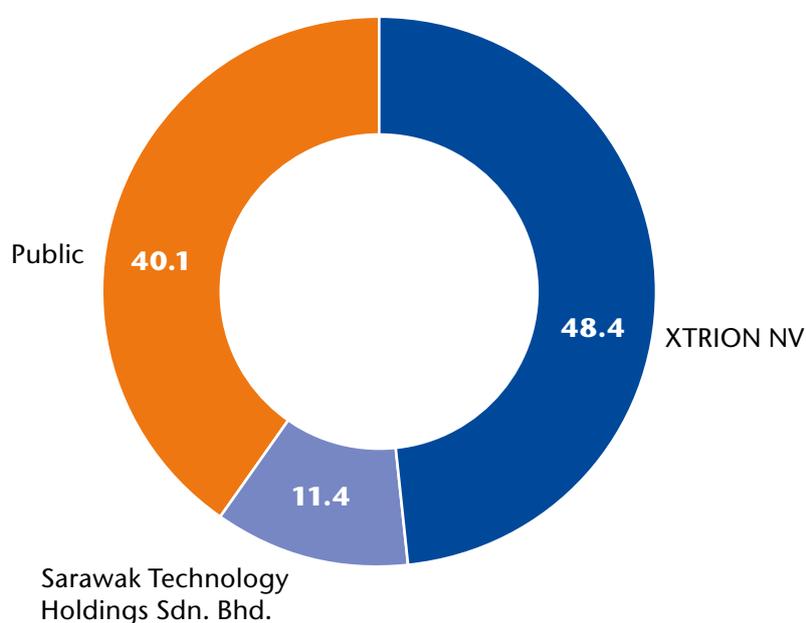
- The level of shareholding for the submission of proposals to the shareholders' meeting is, in accordance with the rules applicable to a Societas Europaea such as the Company, set at 10% of the share capital, while provision 8.8 of the Corporate Governance Code recommends that this level should not exceed 5%.

8. SHAREHOLDER INFORMATION

Shareholder structure

	Number of shares	Share in %
XTRION NV	63,333,563	48.4
Sarawak Technology Holdings Sdn. Bhd.	14,948,655	11.4
Public	52,499,451	40.1
TOTAL	130,781,669	100.0

Total number of votes: 130,781,669



Share information

First day of listing:	April 6, 2017
Stock exchange:	Euronext Paris
Ticker:	XFAB
ISIN:	BE0974310428
Number of shares outstanding on December 31, 2019:	130,781,669
Market capitalization on December 31, 2019:	EUR 545,359,559.73

Financial calendar

April 30, 2020

Publication of Q1 2020 results
Annual shareholders' meeting 2020

July 30, 2020

Publication of Q2 2020 results

October 27, 2020

Publication of Q3 2020 results

Contact information

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9. X-FAB SILICON FOUNDRIES SE STATUTORY ACCOUNTS

The separate financial statements of X-FAB Silicon Foundries SE, the Group's parent, have been audited in accordance with Belgian statutory requirements. The auditor's report is unqualified and certifies that the financial statements have been prepared in accordance with Belgian GAAP, and that they give a true and fair view of the financial position and results of X-FAB Silicon Foundries SE in accordance with all legal and regulatory requirements.

The separate financial statements, together with the separate management report of the board of directors to the general assembly of shareholders as well as the auditor's report thereon, will be filed with the National Bank of Belgium in accordance with the relevant

statutory filing due dates. In addition, they are available on the Company's website or can also be obtained on request at the registered office of the company at Transportstraat 1, 3980 Tessenderlo.

The separate financial statements are reproduced below in condensed form.

The condensed statutory financial statements of X-FAB Silicon Foundries SE are presented in thousands of EUR as the functional currency of the statutory accounts is the EUR.

Participations in affiliated companies are recognized at their acquisition cost.

Condensed non-consolidated statement of profit and loss For the year ended December 31

in thousands of EUR	2019	2018
Operating income		
Turnover	8,982	3,553
Operating charges		
Cost of services and other expenses	(9,064)	(3,586)
Wages and salaries, social security costs and pension costs	(171)	(106)
Depreciation	(6)	-
Operating profit (loss)	(259)	(139)
Finance income		
Income from financial fixed assets	66,300	64,905
Income from current assets	275	114
Other financial income	2,707	4,899
Finance costs		
Debt charges	(2)	(1)
Other financial charges	-	-
Net financial result	69,280	69,917
Extraordinary expenses	(2,086)	-
Profit before taxes	66,935	69,778
Income tax	(1,096)	(890)
Profit for the period	65,839	68,888

Condensed non-consolidated statement of financial position

in thousands of EUR	December 31, 2019	December 31, 2018
ASSETS		
Fixed assets		
Other equipment	31	-
Financial assets		
Affiliated companies		
Investments in affiliates	822,250	561,250
Loans issued to affiliated companies	27,719	122,585
Total fixed assets	850,000	683,835
Current assets		
Amounts receivable within one year		
Other receivables	17,285	50,225
Cash and cash equivalents	31,769	93,045
Total current assets	49,054	143,270
Total assets	899,054	827,105
EQUITY AND LIABILITIES		
Equity		
Capital		
Share capital - issued	657,457	657,457
Share premium	92,902	92,902
Reserves		
Legal reserves	7,058	3,766
Accumulated profits	133,923	71,377
Total equity	891,340	825,502
Current liabilities		
Amounts payable within one year		
Trade payables	446	1,111
Other current liabilities	6,770	-
Taxes	498	487
Accrued charges and deferred income	-	5
Total current liabilities	7,714	1,603
Total equity and liabilities	899,054	827,105

10. RISK FACTORS

An investment in shares involves risks and uncertainties. Prior to making a decision to invest into shares of X-FAB, the information provided in this annual report and, in particular, the risks and uncertainties described below should be read and considered carefully. The occurrence of any of these risks could adversely affect the Company's business, results of operations, and/or financial condition.

Risks relating to X-FAB's business and the semiconductor industry

Structural trends in the markets for the end-user products produced by X-FAB's customers, or material volatility in demand for these products, may limit X-FAB's ability to maintain or increase sales and profit levels.

A significant portion of X-FAB's revenues is derived from customers who use ICs manufactured by the Group as components for the production of a wide range of products including automotive, industrial, medical, and communications devices. If consumer demand for these products is volatile, or past and expected structural growth trends in these industries do not continue, it may lead to reduced demand for X-FAB's analog/mixed-signal ICs.

A global systemic economic or financial crisis, increased political uncertainty, or increased economic protectionism could negatively affect X-FAB.

X-FAB's business is subject to inherent and indirect risks arising from general and sector-specific economic conditions in the markets in which it operates. In recent years, several major systemic economic and financial crises and events leading to political uncertainty have negatively affected global business conditions, the semiconductor industry, and a variety of consumer and industrial markets. X-FAB's protection against downturns is limited, since a substantial majority of customer contracts do not contain minimum order requirements, and as a result any decline

or slow GDP growth, whether caused by political uncertainty, changes in trade regulation, or broader economic conditions, which leads to reduced consumer and industrial spending, may adversely impact X-FAB's customers and result in lower demand for its analog/mixed-signal ICs.

A significant portion of X-FAB's revenue comes from a relatively limited number of customers, with its largest customer being a related party.

X-FAB's largest customer, Melexis, accounted for 35.8% of the Group's revenue in 2019, while the Group's top three customers accounted for 53% of revenue and its top five customers accounted for 60% of revenue during the year. None of X-FAB's customers are prohibited by contract from purchasing from other semiconductor suppliers. In the past, customers have switched to other semiconductor suppliers with little or no notice, or have notified the Group that they would source semiconductors for new end-user products from other semiconductor manufacturers. Changes in X-FAB's relationships with its top customers, the loss of one or more of these customers, or a change in the competitive position of any of these customers could have a material adverse impact on X-FAB. Further, Melexis is a related party, as it is controlled by X-FAB's largest shareholder, XTRION (which is beneficially owned by Roland Duchâtelet, Rudi De Winter, and Françoise Chombar, and the permanent representative of X-FAB's CEO, Rudi De Winter, is married to Melexis' CEO Françoise Chombar). Conditions of the commercial relations between X-FAB and Melexis are in line with those that would have been agreed upon between independent parties in comparable circumstances. The arm's length character of these conditions are analyzed, determined, and tested in accordance with the principles and best practices in this respect as detailed in the OECD's 2017 Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations. Notwithstanding due care taken in the Group's transfer pricing analyses, there can be no assurance that the

tax authorities or courts will not take a position contrary to the Group's position.

Due to X-FAB's relatively fixed-cost structure, its ability to grow profitability is dependent on its ability to maintain appropriate utilization levels.

The profitability of X-FAB's operations is closely tied to its level of utilization. X-FAB's ability to improve or maintain utilization levels depends, among other things, on the general economic environment, the success of its major customers, and its ability to offer the technologies and processes required for it to stay competitive. Failure to maintain or improve utilization levels could have a material adverse impact on X-FAB.

X-FAB faces difficulties in forecasting demand and may therefore be unable to match its production capacity to demand.

Difficulties in projecting future business levels make it more difficult to reach and to maintain optimal utilization levels and adequately predict capacity needs across X-FAB's operations. Because customers usually place orders on a short-term basis, X-FAB may face difficulties accurately predicting demand. Significant capacity problems or inability or delay in shifting production to another fab could harm X-FAB's relationships with its customers and lead to lost sales. Furthermore, small changes in sales at the OEMs may trigger inventory corrections throughout the supply chain. As it can take about ten months from placing an order at X-FAB to assembling the final product at the OEM, a small variation in sales combined with a negative or positive market segment growth could cause overreactions in the supply chain that amplify the effects on X-FAB's end, since X-FAB is at the end of the supply chain.

X-FAB may be unsuccessful in its attempts to increase its production capacity and capabilities.

As part of its strategy to expand capacity, X-FAB intends to expand capabilities and capacity at the Group's existing sites. Although X-FAB does not have any current targets for fu-

ture acquisitions, the Group may acquire additional companies or production sites over the medium term. X-FAB may also seek to grow its production capacity through the development of new manufacturing sites. Failure to integrate any acquired company, fab, or technology successfully, or to achieve desired synergies, may inhibit X-FAB's future expansion.

X-FAB may not realize all the anticipated benefits from its acquisition of Altis' core business.

X-FAB acquired the Altis assets in 2016, including a fab located in Corbeil-Essonnes, France. The integration process includes a series of technology introductions, capacity enhancements, adoptions of Group-wide systems, and implementation of cost-efficiency measures. X-FAB may encounter delays or interruptions in this integration process, among others due to delays in customer qualifications in the fab or a need to make additional capital expenditures. Further, the Group may face risks meeting targeted returns in the event of a decline in operating levels since it has committed to keep at least 800 staff employed at the fab until 2021. There can be no assurance that this integration will be successful, that X-FAB will meet targeted synergies or financial returns at the new facility, or that X-FAB will be able to keep all existing customers to secure satisfactory fab utilization during the business transition.

X-FAB's expectations of an increase in market share by foundries might not occur.

A key component of X-FAB's strategy is its belief that the market for foundries will grow, due to increased outsourcing of analog/mixed-signal ICs by IDMs and increasing prevalence of fabless companies. Although this trend has been prevalent in the digital IC market, it may not develop to the same extent in the market for analog/mixed-signal ICs. If increasing market growth for foundries were to slow or reverse, it could have a material adverse impact on X-FAB.

X-FAB may face increasing competition.

Although X-FAB operates in a narrow market segment within the broader semiconductor manufacturing industry, the Group faces competition from other semiconductor producers, some of which have greater manufacturing, financial, research and development, and marketing resources than X-FAB does. In the long term, these competitors may win a higher portion of new customers than X-FAB, or win existing customers from X-FAB. If X-FAB cannot provide the same level of design and engineering support, capacity, or advanced capabilities as competitors, it may have a material adverse effect on X-FAB.

X-FAB may face competitive pricing pressures.

Competitors may have an impact on X-FAB's selling prices and demand for its services. Although X-FAB has not experienced significant pricing pressure in the past, there can be no assurance this will be the case in the future. Significant declines in average selling prices (ASPs) could have a material adverse effect on X-FAB.

X-FAB may face raw material price increases.

X-FAB manufactures analog/mixed-signal ICs, utilizing proprietary process technologies and third-party silicon wafers and other raw materials. Changes in the availability or prices of such wafers and raw materials can have an effect on the operating margin if the additional costs cannot be included in the prices for X-FAB's own customers.

In 2019, raw wafer costs accounted for 12% of total cost of sales. For most raw wafer types, X-FAB uses more than one supplier to secure availability of required volumes but also to remain flexible. However, having several suppliers per wafer type also means a greater effort to acquire the necessary qualifications for these suppliers.

X-FAB is subject to risks associated with currency fluctuations.

X-FAB records its financial results in US dollars but receives revenues and incurs costs in a variety of currencies, including euros and Malaysian ringgit. Changes in the exchange rate of the US dollar to the euro or Malaysian ringgit could result in translational losses in a given year, as compared to prior operating periods, or a mismatch between local currency expenses and US dollar revenues. X-FAB makes an effort to increase its share of euro-denominated revenues in order to achieve a better natural hedge; however, this may not be effective in preventing exchange rate losses.

For price, credit, liquidity, and cash flow risks as well as the use of financial instruments, please refer to section 10 of the notes in chapter 5, X-FAB Consolidated Financial Statements.

X-FAB is also subject to the following risks:

- X-FAB depends on successful technological advances.
- X-FAB depends on successful materials, machinery, and component procurement for its manufacturing processes.
- X-FAB's business may temporarily be negatively impacted due to disruptions in the supply chain or market demand caused by a pandemic or epidemic.
- X-FAB may be unable to recruit or retain the personnel required for its growth strategy.
- X-FAB may be affected by reductions in government subsidies and grants and could fail to comply with the conditions and obligations under such subsidy programs.
- Industry studies, forecasts, and growth rates relating to the semiconductor market as a whole may not be indicative of X-FAB's operations within the analog/mixed-signal semiconductor market.
- X-FAB's ability to compete successfully and achieve future growth will depend, in part, on its ability to protect its proprietary technology.

- X-FAB may be subject to claims for alleged infringement of third parties' intellectual property rights.
- X-FAB depends on intellectual property rights of third parties, and failure to maintain or acquire licenses could harm the Group's business.
- X-FAB could be adversely affected by manufacturing interruptions.
- If X-FAB experiences difficulty in achieving acceptable device yields or process performance as a result of manufacturing problems, it could result in delayed deliveries.
- X-FAB's insurance coverage may not be adequate to compensate for any interruptions or loss of business.
- X-FAB could incur material costs to comply with regulation, including environmental and health and safety laws, especially as a result of climate change. Changes in such regulations could require significant changes in the production process or could even require purchasing additional equipment.
- X-FAB may be subject to litigation, disputes, or other legal proceedings.
- X-FAB carries a significant amount of deferred tax assets on its balance sheet.
- Low or negligible employee motivation as well as the occurrence of accidents due to human failure may negatively impact X-FAB's business.
- Cultural differences may lead to misalignment among X-FAB sites, negatively impacting X-FAB's business.
- X-FAB may be subject to penalty payments if labor rights or environmental provisions are being violated.
- X-FAB's public image may be adversely affected based on the impact of its business on the environment.

Risks related to the shares

- The interests of X-FAB's principal shareholder may not necessarily be aligned with X-FAB's interests or the interests of the holders of the shares.
- Future sales of substantial amounts of X-FAB's ordinary shares, or the perception that such sales could occur, could adversely

affect the market value of the shares.

- X-FAB may not be able to pay dividends.
- Investors with a reference currency other than euros will become subject to foreign exchange rate risk when investing in shares.
- Any sale, purchase, or exchange of shares may become subject to financial transaction tax.
- Certain provisions of the Belgian Companies Code and the Articles of Association may affect potential takeover attempts and may affect the market price of the shares.

Forward-looking information

This annual report may include forward-looking statements. Forward-looking statements are statements regarding or based upon management's current intentions, beliefs, or expectations relating to, among other things, X-FAB's future results of operations, financial condition, liquidity, prospects, growth, strategies, or developments in the industry in which it operates. By their nature, forward-looking statements are subject to risks, uncertainties, and assumptions that could cause actual results or future events to differ materially from those expressed or implied thereby. These risks, uncertainties, and assumptions could adversely affect the outcome and financial effects of the plans and events described herein.

Forward-looking statements contained in this annual report regarding trends or current activities should not be taken as a report that such trends or activities will continue in the future. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, unless legally required. You should not place undue reliance on any such forward-looking statements, which speak only as of the date of this annual report.

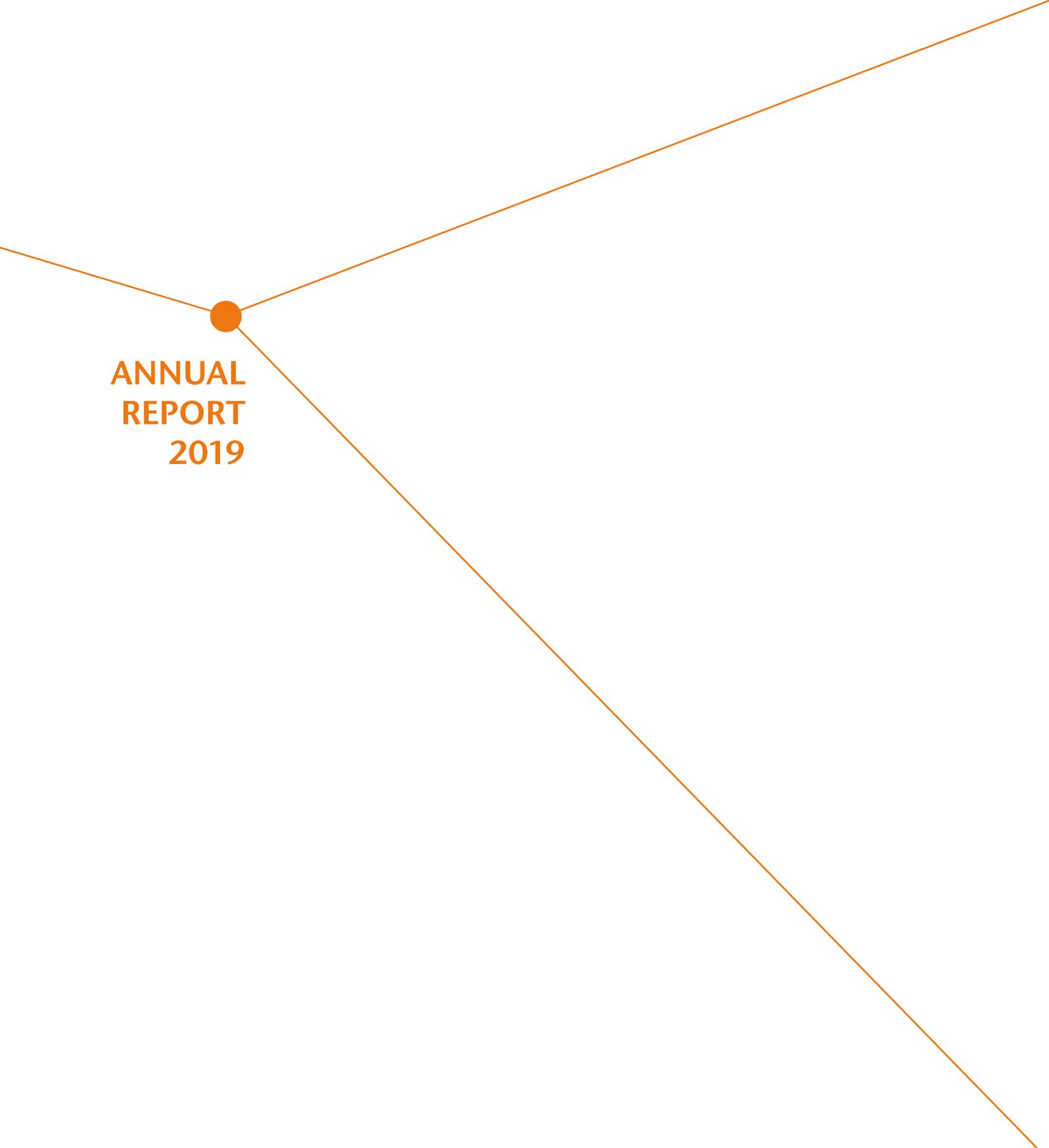
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11. GLOSSARY

Analog M/S	Analog mixed-signal
ASP	Average selling price
BCCA	Belgian Code on Companies and Associations
BCD	Bipolar-CMOS-DMOS
Belgian Companies Code	The Belgian Act of May 7, 1999 containing the Companies Code as amended from time to time
Belgian GAAP	Belgian generally accepted accounting principles, which refers to the financial reporting framework applicable in Belgium
CAGR	Compound annual growth rate
CMOS	Complementary metal-oxide-semiconductor
CMP	Chemical-mechanical polishing
Company	X-FAB Silicon Foundries SE
CSR	Corporate social responsibility
DNA	Deoxyribonucleic acid
EBIT	Earnings before net finance cost and income taxes, which is equivalent to operating profit, as presented in the historical financial information
EBITDA	Earnings before net finance cost, income taxes, depreciation, and amortization.
EDA	Electronic design automation
EHS	Environmental, Health and Safety
Epi	Epitaxy, which is the process of depositing a thin layer of single crystal material over a single crystal substrate
ERP	Enterprise resource planning
EU	The European Union
EUR, euros, or €	The common currency of the EU member states that are part of the Eurozone
EV	Electric vehicle

Fab	Wafer fabrication facility
FSMA	The Belgian Financial Services and Market Authority
GDP	Gross domestic product
GRI	Global Reporting Initiative
GVG	X-FAB Dresden Grundstücks-Vermietungsgesellschaft mbH & Co. KG
IATF	International Automotive Task Force
IC	Integrated circuit
ICC	International Chamber of Commerce
IDM	Integrated device manufacturer
IFRS	International Financial Reporting Standards as adopted by the European Union
IoT	Internet of things
IP	Intellectual property
kW	kilowatt
LiDAR	Light Detection and Ranging
MEMS	Micro-electro-mechanical systems
METIS	Micro-Electronics, Training, Industry, Skills
MFI	X-FAB MEMS Foundry Itzehoe GmbH
M-MOS	M-MOS Semiconductor Sdn. Bhd.
MW	Megawatt
NRE	Nonrecurring engineering
NVM	Nonvolatile memory
OECD	Organization for Economic Cooperation and Development
OEM	Original equipment manufacturer
PDK	Process design kit

REACH	Registration, Evaluation, Authorization, and Restriction of Chemicals
RF	Radio frequency
RoHS	Restriction of the use of certain hazardous substances
SE Regulation	Council Regulation (EC) No 2157/2001 of October 8, 2001 on the Statute for a European company (SE)
SiC	Silicon carbide
SME	Small or medium-sized enterprise
SOC	System-on-chip
SOI	Silicon-on-insulator
STEM	Science, technology, engineering, and mathematics
TOC	Total organic carbon
WSPM	Wafer starts per month
X-FAB SE, or the Company	X-FAB Silicon Foundries SE
X-FAB SE Group, or the Group	X-FAB Silicon Foundries SE together with its subsidiaries
X-FAB GmbH	X-FAB Semiconductor Foundries GmbH
X-FAB Dresden	X-FAB Dresden GmbH & Co. KG and X-FAB Dresden Verwaltungs-GmbH
X-FAB France	X-FAB France SAS
X-FAB Texas	X-FAB Texas Inc.
X-FAB Sarawak	X-FAB Sarawak Sdn. Bhd.
X-FAB Japan	X-FAB Japan K.K.
XMF	X-FAB MEMS Foundry GmbH



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