aliaxis

business overview

Consolidated Accounts 2019

€ 3.1 billion
revenue

€ 440 million
current EBITDA

± 15,500
employees globally

40+
countries

100+
locations

€ 152 million
capex (incl. leases)

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1.

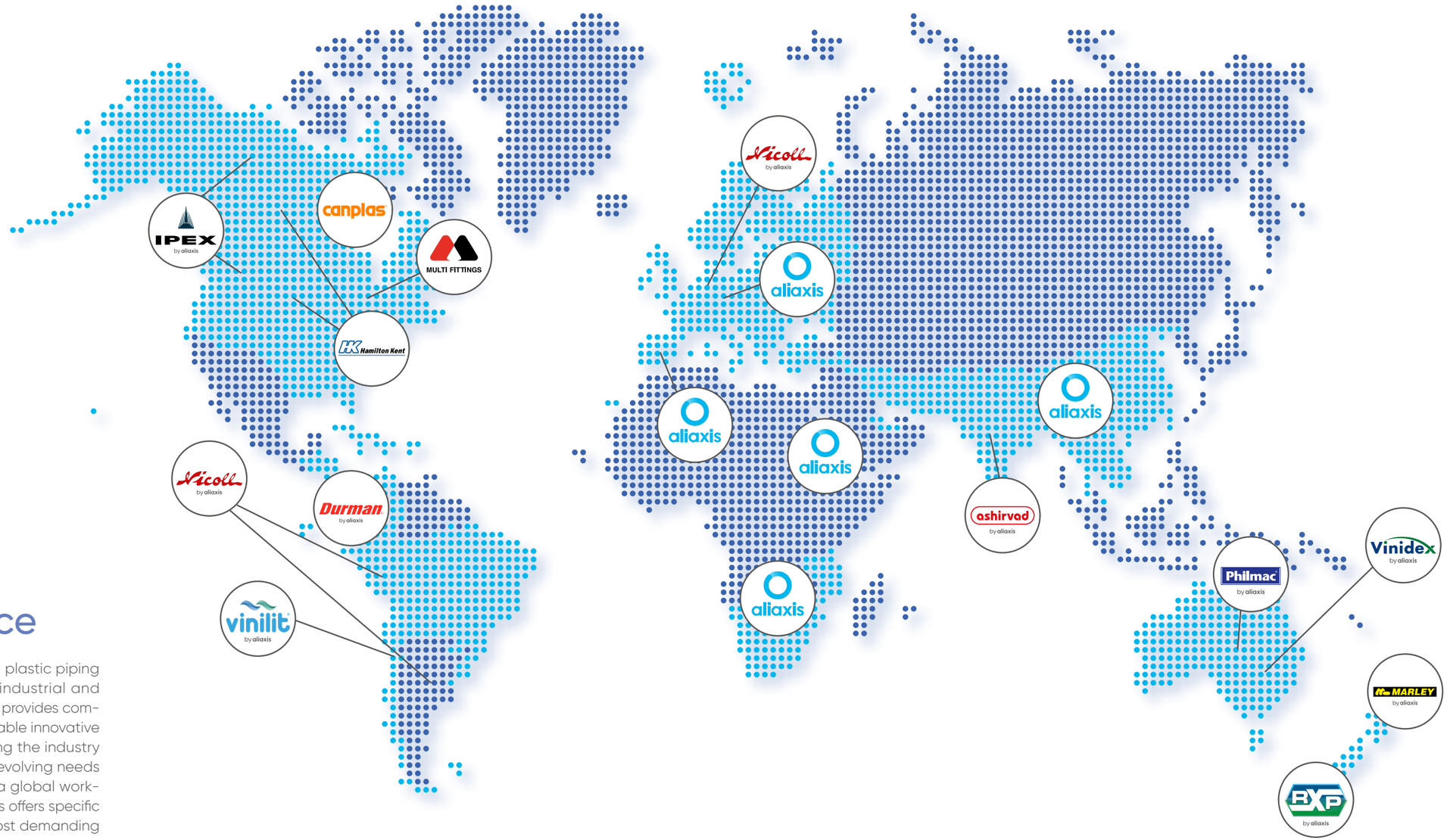
Our businesses

2019 Highlights

Global presence

Aliaxis is a global leader in advanced plastic piping systems for building, infrastructure, industrial and agriculture applications. The company provides communities around the world with sustainable innovative solutions for water and energy, leading the industry in a way that anticipates the rapidly evolving needs of its customers and of society. With a global workforce of about 15,500 employees, Aliaxis offers specific solutions that meet our customers' most demanding needs across the globe.

Aliaxis is active through leading local brands and operates in over 40 countries, combining local solutions with global innovation and operational excellence. The company is present on every continent, with its global headquarters in Brussels, Belgium.



Americas

The main goal for the Americas in 2019 was to continue growing by further improving customer intimacy. This goal was ambitious given their strong performance in 2018. A lower Canadian housing segment hindered progression but was offset by the economic conditions and business investments in the USA. The Latin American businesses set aggressive growth targets in 2019 but unfavourable market conditions made those goals difficult to achieve. Nevertheless, the Latin American team managed to maintain its market position.

Strategy overview

The strategy for Aliaxis North America in 2019 was to grow organically as well as through innovation and M&A. This goal was achieved by successfully acquiring Silver-Line Plastics and its four plants, resulting in a more prominent manufacturing presence in the USA. On the investment side, the North American team accelerated its efforts in research, development and innovation to develop customer-driven solutions. Simultaneously, North America operations further increased its distribution footprint with the objective of bringing a wider variety of products closer to the customers and end-users.

The Latin American team set ambitious growth targets and focused on further strengthening its value proposition. Although growth was hindered by political instability and a decreasing demand in key markets, the team has been focussing a lot on enhancing the value proposition through commercial excellence and operational efficiency programs. Aliaxis Latin America also generated significant cost savings. After a strategic footprint assessment, the region exited the distribution operation in Brazil and announced its exit from the extremely competitive Mexican market.

The impact of pressure on volume and price margins was contained because of improvements in productivity, materials and commercial execution.

Market overview

Overall, 2019 market conditions in the Americas were down compared to previous year. However, through a series of strategic initiatives, the impact on the region was contained.

2019 was a record year for the USA. Average sales and gross margin generation from the top ten customers increased. However, even the USA had its challenges. Unemployment rates are historically low, making it difficult to attract good talent to key positions. In some regions, severe weather conditions in H1 2019 caused delays. The combination of a tight labour market and bad weather made it impossible for contractors to make up the lost time during the rest of the year.

The Canadian economy also experienced slower growth. The slower than predicted growth combined with changed priorities on government spending and investments, led to lower volumes. The impact on net sales was contained due to higher selling prices and a better product mix.

The Latin American market came under serious pressure. Overall, economic activity indicators were revised downwards repeatedly throughout the year. There were fewer building and infrastructure projects than projected and the market did not recover over the course of the year. Contribution margins were also eroded due to overcapacity in the markets and the resulting competitive pricing landscape. One-off financial provisions offset well-executed fixed cost containment initiatives.

Political instability affected the entire Latin American region, most significantly in the southern triangle of Central America, and in South America. This instability resulted in less government spending and therefor fewer sales. The northern triangle of Central America has seen some improvement and the strategy of intimacy with customers has enabled them to win more projects.

Health & Safety

Health & Safety remains a focus point for all Aliaxis. In line with the global HSE strategy, the Americas division implemented the Global Standards for Health & Safety in 2019 and reported on near-miss incidents.

In addition to implementing global goals, the Americas also focused on initiatives such as innovations to help make the working environment safer by eliminating interaction with machinery. The North American team developed the first fully automated pipe packaging station that eliminates all human interaction with the pipe until the bundle is completed. In Canada, the team developed a new cart that is lighter, safer and ergonomically easier to handle.

Latin America made an effort not only to improve workplace safety but also to educate family members about the company's safety culture and improving overall safety awareness. A first aid training session for fire and forklift incidents was organised in Peru. Costa Rica developed a wellness program to promote a healthy lifestyle to improve the lives of employees and their families through physical training, prevention and medical check-ups.

Cross-fertilisation

Being part of the Aliaxis family offers the advantage of being able to work with entities from all over the world. For example, the North America team seized the opportunity to work with Aliaxis Italy while developing a new type of one-piece valve, a technology previously not available through Aliaxis. The new small diameter valves launched in North America in September 2019.

The North American R&D team supported several regions with the development and creation of new products, while the design team collaborated closely with the APAC division. Because of such close collaboration between the American regions, it was possible to generate raw materials savings, reduce production costs and develop new products.

The innovation teams of the American businesses worked together to find a Wastewater Treatment installation case to test the new Vortex Force technology.

Driving innovation

Innovation is often the result of close collaboration, and that was no different for the Americas in 2019. The teams worked together on several cases, such as IPEX Vortex Force. To support market growth, IPEX was looking for installation case studies in wastewater treatment (WWT) applications. Canada and Costa Rica worked together to test the system resulting in a highly successful collaboration.

Innovation capabilities were improved during 2019 in the Latin American region through the training of functional team members in innovation and process management. In addition, the work of cross-functional teams on innovation projects revealed opportunities for improving practices and methods in operational departments.

Creating our best place to work

The American division implemented several HR initiatives in 2019 to help create the best place to work. In North America, the focus was on people, building strong teams and emphasizing management practices and employee engagement. The manufacturing facilities received recognition for this, with 8 out of 20 plants receiving Platinum, Gold or Silver status in the HR Awards of Excellence.

The "Flow" cultural transformation program was a focus point, aimed at creating a strong Aliaxis culture based on our core values. Another key area was the formation of the Talent & Compensation Councils and the launch of the learning and development platforms.

In Latin America, HR initiatives focused on safety, health, communication and professionalisation. "Director Talks" were initiated to promote the discussion of strategy and goals. These sessions allowed the employees to share their thoughts and to be educated about the overall business and history of Aliaxis.

Durman Colombia launched a professionalisation program to improve the educational level of the employees. This ambitious project supports 25 employees over the age of 50 while they work towards a bachelor's degree. It has also had a positive impact on performance and mental capacities.

Corporate Responsibility

In the Americas division, giving back to the community is important and employees are encouraged to participate in different initiatives. Several businesses support local charities providing food for deprived children, support an Oncology department or help build homes for those who need it.

Collaboration with Habitat for Humanity continued. IPEX Canada marked the 25th anniversary of joint working and in Guatemala, together with the NGO SELAVIP in the aftermath of an eruption Volcán de Fuego (located about 16 kilometres west of Antigua), 75 Aliaxis volunteers gave their time, hands and hearts to this and helped the 42 affected families who lost homes and belongings to build their new homes. Doing this work together with the members of the local community has formed a strong bond between the Aliaxis employees and their neighbours.

Several scholarships were established in Canada, including technical and manufacturing studies.

In the United States, one initiative in particular caught everyone's attention: the collaboration of IPEX Chesterfield with Bridges Employment Services, an organisation that looks for job opportunities for people with disabilities. This initiative worked out so well that IPEX Chesterfield took on a second employee and is planning to recruit a third.

APAC

2019 has been a year of collaboration and leveraging of expertise across the APAC region. The teams in Australia and New Zealand joined forces to strengthen their product leadership and innovation, and to develop a wide range of new products and services for their division.

Strategy overview

The teams in New Zealand have focused on product leadership through innovation, commercial excellence initiatives to strengthen their customer relationships and enhancement of their collective operational performance through footprint optimisation and supply chain improvements.

In Australia the four strategic pillars were product portfolio, niche growth opportunities, cost reduction and talent enhancement. Product and operational innovations are to extend and defend their strong domestic position. The transformation programme successfully initiated within Vinidex in 2018 and further developed in 2019 has been expanded across the region. Our 2019 focus was on operational cost improvement and efficiency, allowing leverage of key programmes across the Asia Pacific region. Teams with renewed ambition and new capabilities have been put in place to exceed customer expectations and serve as the foundation for sustained business performance and long-term growth.

Market overview

The 2019 elections in Australia were one of the elements that caused a considerable softening in construction activity and a pause in the infrastructure market. Against those more difficult trading conditions, the Vinidex team accelerated our transformation activities aimed at creating sales growth and value enhancement. Next to that, a review of our fixed costs structure and our competitive profile resulted in the announcement to close our Wagga operations and in several other fixed cost improvements.

In New Zealand, previously robust market conditions encountered headwinds in late 2018 and through 2019. This was due to global uncertainty and changing national government policies affecting immigration, infrastructure investment, workplace legislation and willingness of businesses to invest in growth. As a result, there was an important reduction in irrigation projects.

Health & Safety

As a key topic for APAC as well, New Zealand implemented the Aliaxis global Health & Safety standards in 2019. Furthermore, a safety culture survey with Aliaxis employees in New Zealand revealed a need for better housekeeping at the sites. After a successful pilot project at the Manuwera site, this approach has now been expanded to other New Zealand facilities.

At Vinidex in Australia, health and safety initiatives were launched in many areas such as risk identification and management, programmes to reinforce risk awareness and reporting on near misses, improvement opportunities and the implementation of 5S across a number of manufacturing and distribution sites.

A strong example is the Traffic Light System inventory identification system, a pilot project now running in Perth. This project comprises a system for their warehouse with colour codes and visual triggers, designed to positively affect people's behaviour and potential hazard identification.

Also in Australia, Philmac has taken a number of initiatives to improve health and safety in the workplace. The company has successfully applied to be registered as a top-tier level 5 self-insured employer for WorkCover. This indicates the high level achieved by Philmac's safety system.

Moreover, Philmac has completed two long-running programmes targeting manual handling and lacerations. In 2019 the teams saw reductions of over 70% in the frequency and severity of those injury types since programme implementation. The majority of their people leaders at all levels have now completed mental health first-aid training. In March 2019, Philmac hosted the 5-day Aliaxis global health, safety and environment conference as part of the global alignment strategy.

Focus on winning together with customers

As a testament to the quality of their customer service, supply chain and sales team, Philmac was awarded "Supplier of the Year" for Irrigear and was rated no.1 supplier for Ruralco in four out of five states in Australia. This award has even more significance considering that Landmark and Ruralco merged to form Nutrien Ag Solutions, which makes it the largest distributor to the Australian agriculture sector.

Driving innovation

2019 marked the full implementation and launch of the innovative Arma® electrical conduit by Marley New Zealand. With a strategy built around technical leadership, high performance and utilising a new manufacturing standard to take first-mover advantage, this launch has seen Marley's electrical conduit sales grow in a mature category.

Chlorblue® is an innovative PE100 pipe engineered by Vinidex Australia to extend the service life of drinking water systems with higher water temperatures and elevated chlorine levels, compared to existing PE100 pipes. This new product is ideally suited for hot areas in Northern Australia.

Cross-fertilisation

Aliaxis teams within APAC have successfully collaborated globally to share best practices, co-develop new products, incorporate product feature improvements from colleagues, and consult on quality improvement processes. 2019 has also seen a marked increase in regional collaboration between the APAC businesses, particularly in operations, supply chain, procurement and innovation.

Vinidex, Marley and Ashirvad are currently co-developing key products for the high-rise and multi-storey segment. Ashirvad's capabilities combined with local market and technical knowledge will deliver a market leading product. Marley also supported Ashirvad, Nicoll and Aliaxis R&D to develop rainwater gutters as part of their rainwater harvesting systems.

A collaborative project between Dux, Philmac and Marley has successfully developed a new surface drainage range for Dux. Dux now has a market-leading offer in surface drainage that enables it to spearhead a targeted sales effort to grow its share.

Marley and RXP teams in New Zealand have worked closely together to maximise results for Aliaxis in the civil infrastructure market segment. By joining forces, the teams secured a $2 million project to supply new water and wastewater pipelines in the Lake Dunstan region.

Creating our best place to work

APAC has made significant progress in establishing a divisional team and bringing in capabilities required to ensure we are fit for growth and aligned to the Aliaxis capability outcomes. Investment in Regional Marketing capability and Commercial Excellence will drive our ABM agenda, supplemented with rebuilding the marketing capability in the Vinidex business. The Operations' functions are also building their capability. As a result, the Region now has a full team across all functions to support the D.N.A. strategy.

The successful launch of Workday has enabled divisional alignment on core HR processes and policies and has facilitated the One HR agenda with strong Regional and Global alignment. The digitisation of HR data is providing a single point of access to information that enables our managers to make informed decisions and provides leaders insights on our Talent. Developing a performance-based culture and focusing on Talent Management is supporting our goal of Best Place to Work.

In New Zealand, Marley celebrated its 60 years with events at its Auckland and Christchurch sites. Throughout 2019 two Aliaxis New Zealand Leadership Summits were organised for all mid-senior level staff across four businesses in New Zealand. Key topics of the summits were borderless collaboration, increasing awareness of business projects and fostering collaboration.

Corporate responsibility

Both Vinidex in Australia and Marley in New Zealand focus on minimising their impact on the environment by reducing the amount of waste to landfill. Ongoing efforts include minimising in-house wastage by reprocessing scrap and minimising waste to landfill through sorting and reuse programmes. Having the capability to recycle PVC from external sources and comply with best practice for PVC processing and manufacture, Vinidex has for many years been a best environmental practice (BEP) PVC supplier. The company is also a founding member of the Green Building Council in Australia.

Vinidex is also building further capability in recycling to facilitate the increasing necessity to recycle across PVC and PE materials from broader community and industry waste sources. Dynex, part of Aliaxis in New Zealand, is trialling a take-back scheme as well as returning its production scrap to Marley for recycling in a fantastic example of group collaboration.

As an integral part of its local communities, Marley takes its role to heart in helping them to flourish. The company awards, amongst others, a $15,000 scholarship every year to a high school student. In this way it promotes excellence and encourages students to continue their studies at university.

Dux in New Zealand offers an annual scholarship designed to recognise a top-performing plumbing apprentice in conjunction with ATT (Apprentice Training Trust). The scholarship covers their fees for 3 years and provides Dux products free of charge to use during their apprenticeship.

India

A year after its full acquisition by Aliaxis, Ashirvad remains focused on "+1". This "+1"-goal is to create one more Ashirvad, doubling the India business revenue by 2022 versus 2018. A new structure of Strategic Business Units today uniquely addresses exceptional growth opportunities with greater efficiency, accountability and autonomy, while leveraging Ashirvad's legacy of agility and excellence in execution.

Strategy overview

The integration process of Ashirvad into Aliaxis started gradually at the beginning of 2019 and gained momentum throughout the year. As a result, Ashirvad is today fully integrated within the Aliaxis structure. The company worked hard on reinforcing its teams and structures to prepare for further growth. Strengthening the engagement of their large and fragmented network of distributors has been a key part of the business strategy throughout 2019, translated in various enrolment and loyalty programmes.

Ashirvad continues to encompass all partners across the value chain on its relentless high-growth journey while the corporate responsibility programmes ensure that the people and community are always at the heart.

To achieve the "+1" goal that has been set, the new manufacturing unit that opened in 2018 in Bhiwadi (in the North of the country) entered Phase 2 of its operations for increasing manufacturing capacity in 2019. In line with the ambitious growth plans, the company is looking at investing in new manufacturing units in eastern and southern India, allowing greater proximity to distributors in those regions. This helps deliver better service at a lower cost and translates into better market opportunities and higher sales.

Consolidating processes and streamlining channel engagement programmes with digital at its core, and people, customers, safety and innovation as strategic focus areas continued as planned.

Market overview

After the general elections in India in May, the new government opened large infrastructure projects for tendering only in the period June-September. Several government programmes were re-categorized and launched to bring piped drinking water to urban and rural pockets across India. Among these, a Smart Cities Programme gained considerable traction. These government infrastructure projects will run over the next five years and offer considerable potential for driving business for Aliaxis in India.

Health & Safety

In line with Aliaxis' global initiative, the emphasis of Ashirvad's health and safety programme in 2019 was on proactive identification and mitigation of risks. The programme includes awareness campaigns, visual scoreboards, safety videos and training programmes for all employees. Improved machine guarding, automation and the implementation of standard ways of working further contributed to higher levels of safety.

These combined efforts led to instant results. The number of reportable incidents was reduced by half in just one year, from January to December 2019. Along with the engagement of employees in safety campaigns, a comprehensive gap analysis of plant facilities in relation to regulatory and Aliaxis standards was organised. Further investments in the plants, such as sprinkler systems for firefighting, contribute to a safer working environment.

Focus on winning together with customers

The Ashirvad Excellence Club in India is a unique channel engagement programme with yearlong rewards and benefits, aimed at strengthening the relationship between Ashirvad and its key customers, its retailers.

The successful "Go for Growth - Ticket to Cricket World Cup" campaign for Excellence Club members saw fantastic participation. It ended with an Ashirvad-sponsored "ICC Cricket World Cup London Tour" for their high-performing distribution partners and retailers who achieved their growth targets.

Driving innovation

In a first for India, Ashirvad launched an active drainage ventilation system in the high-rise category. This gives the local teams a technical knowledge edge over other companies, which are still mainly positioning passive products.

In reorganising our resources and congregating innovative development at a global level, India was chosen as one of the countries to host an Innovation Centre, alongside France and Canada. This centre will further build on the strategy to present "sustainable innovation" as Aliaxis' differentiator for growth opportunities. Construction of this new state-of-the-art centre of excellence has already started and will soon be operational. The search for 50 additional R&D colleagues has already been launched.

Creating our best place to work

Ashirvad follows through with the Aliaxis goal to make the Group the Best Place to Work. Throughout the year, employee welfare, development and engagement initiatives were revamped and re-launched, supported by events and campaigns around the same theme. In June 2019, Ashirvad received the Aliaxis "Best Place to Work Award".

In October 2019, the "HumAshirvadi" campaign was launched through a HumAshirvadi community site to give our people a digital platform for employee advocacy and engagement. "HumAshirvadi" translates as "We Ashirvadis" and positions our people as brand ambassadors. Throughout the three-month campaign, employees shared stories of their Ashirvad journey through photographs and video testimonials, demonstrating pride of ownership and collaboration. Today there is a HumAshirvadi site brimming with stories.

Cross-fertilisation

Ashirvad teams collaborated with other Aliaxis companies globally, sharing best practices and case studies, co-developing new products, incorporating product feature improvements from colleagues and consulting on quality improvement processes.

New rainwater gutters were developed together with Marley in New Zealand and Aliaxis R&D in the UK. These are part of the rain harvesting systems that will be launched before the next monsoon in India.

With Vinidex in Australia and Marley in New Zealand the Ashirvad team co-developed aerators for the Australia and New Zealand markets.

Corporate responsibility

The year 2019 saw the opening of a second Ashirvad plumbing school in Bhiwadi, India. These plumbing schools are a unique corporate responsibility initiative in the country. They have a profound social impact and enjoy immense goodwill in the plumbing community.

The second plumbing school is modelled along the lines of the successful first one in Bengaluru, Karnataka. Six batches of the Ashirvad Plumbing School Course have been completed with 180 successful student placements in organisations of repute. The Ashirvad Plumbing Schools have been nominated for the Centre of Excellence award by the Indian Plumbing Sector Skill Council.

EMEA

The EMEA division is focussing on the two key pillars of their strategy - integration and growth. That means 2019 was mainly about simplifying the organisational structure, making the EMEA set-up leaner and more efficient. Next to that, a lot of effort went into some other important projects. For example, Italy was the first to apply the Aliaxis Operations Model, a common model for operational excellence.

Strategy overview

The EMEA strategy focused on developing the division from a collection of businesses with limited growth into a growing and integrated division that contributes to the Aliaxis global objectives. In 2019, the team concentrated on three key initiatives. Firstly, on redefining and sharpening the commercial strategy for the different markets. Secondly, the different businesses were integrated to become one division that shares resources, and that leverages on the synergies and strengthens capabilities. And thirdly: the redefinition of the EMEA operational model and footprint.

On a commercial level, the strengthened marketing and sales teams are working on new segments for profitable growth and on creating differentiating value propositions. They are also developing the required new capabilities to execute them. The launch of the new Aliaxis brand strategy also supported their commercial efforts.

Next to that, the EMEA leadership worked on integration, changing the divisional organisation structure from business units to countries. In Germany for example, FRIATEC and Akatherm FIP are now being managed under one "Aliaxis Germany" umbrella. The businesses in Eastern Europe are also much more integrated today. The operational footprint was also simplified, for example in Italy, where the FIP-activities were centralised on the main site in Casella.

This is leading to a more integrated industrial group in Europe that is set up for future growth.

Market overview

Within the EMEA division, market conditions between different regions varied considerably. Overall, most regions in Western Europe started 2019 in a strong position. Germany and Italy kept up a good performance throughout the year, in infrastructure and building respectively. Other countries had a harder time. Spain, for instance, started off well but growth kept slowing down, especially in building. France performed precariously, except in infrastructure. Social unrest and exceptionally hot weather influenced production and distribution. The division showed substantial growth in the domestic market but was lagging behind in terms of export.

Political events also left their mark on the performance of the regions. In the United Kingdom, exports to the Middle East came to a halt and new contracts were stalled in the second half of the year, mainly affecting the industry sector. Performance in the Middle East itself was strongly affected by the situation in Saudi Arabia. Because of this, growth was stalled and performance for 2019 was flat. Still, EMEA was able to keep up contribution and maintain fixed costs.

In Eastern Europe, the overall performance was very solid, however with variance between the different countries. Hungary and the Czech Republic performed well. Performance in Russia and Poland was challenging although the sanitary segment has grown significantly in Poland.

Health & Safety

In line with the global Aliaxis objectives, Health & Safety was a key focus point for Aliaxis EMEA in 2019. The ambitious goal was to implement all global Health & Safety standards in all of the businesses. In countries that were lagging behind, resources were reinforced, and a stronger emphasis was put on reporting every incident.

All sites delivered positive results, but one site outperformed all the others: in Poland, the team achieved 1,000 days without a "Lost Time Incident". This number reflects how far the team has come in shaping a safety culture that engages everyone and eliminates risks in the workplace.

Other sites also took Health & Safety-initiatives. Spain, for instance, invited the Spanish safety leaders to a "Preparing Leaders" workshop with the goal of reinforcing a safety culture. Over the course of a week, the trainers developed skills in order to accelerate local Health & Safety management and improvement.

Meanwhile, in Luxembourg, the whole Purchasing team took part in a two-day first aid training programme. This extensive training strengthened the team's skills, which was useful for them both in the workplace and in their private lives.

Driving innovation

Innovation is a crucial element in Aliaxis' strategy of creating sustainable, profitable growth. In 2019, the EMEA team focused on boosting its innovation output and on next-generation products and breakthrough solutions for existing and future customers.

The most important change for the EMEA division this past year was the creation of three innovation centres, each with its own focus and expertise. EMEA R&D for the Building segment is centralised in Cholet. For Infrastructure, Mannheim is the chosen location. Finally, R&D for Industry will be concentrated in Casella. This centralisation will lead to a more focused and efficient innovation pipeline, to be developed to the benefit of all our customers.

Product-wise, innovations were made in recyclability, among other areas. Several teams are increasing the level of recycled content in the products. Encouraged by the new French standards on plastic recycling, the French innovation team is working hard on integrating recycled content by changing the process and the technical design of our products. The team was recognised for its innovative, robust and durable Magnetech-technology, winning several awards. Similar initiatives have been taken by the team in the UK and Italy. Aliaxis Italy also presented a new generation of PVC-U fittings that are lighter and use less raw material.

Cross-fertilisation

The teams within EMEA participated in several cross-fertilisation projects in 2019, where mixed teams work together locally and globally to drive innovation and support our customers with high-quality expertise.

Aliaxis Italy, for example, shared commercial best practices among its sister businesses. On a more global level, Aliaxis Italy collaborated with IPEX in North America to develop a new type of one-piece valve, a technology previously not available within Aliaxis. The new small diameter valves were launched in North America in September 2019.

Meanwhile, Aliaxis Spain worked closely with teams in Latin America to improve process conditions in Extrusion PE pipes, with a focus on scrap reduction and overweight control.

Creating our best place to work

On people side, the teams worked hard to change things around in 2019. Bearing in mind our ambition to become the "Best PlaceTo Work", the divisional organisation was significantly simplified, and the divisional management structure changed quite a bit. The team significantly invested in people development and in building a communications strategy that allows for a fluent internal communication towards all EMEA employees at all levels of the organisation.

The teams in Europe and the Middle East also participated in the Global "Aliaxis & Me" Engagement Survey. The division was very enthusiastic to get systematic feedback from the people for the very first time. The management teams are now working hard to translate the learnings into tangible action plans.

Another key initiative was the "Leadership Assessment" project that was initiated. In Spain, the team took it even further and performed an assessment of the whole sales team, and not only the leadership. Linked to this, a significant effort was made to train several senior team members in change management, so they can guide and support their teams throughout the transformation.

And one team received an award to definitely be proud of: Aliaxis Casella was chosen as the "Best Female Enterprise of the Liguria Region 2019".

Operational Excellence

The transition towards "One Aliaxis" has been set in motion within the whole company. For EMEA, this requires the transformation from a collection of companies into a global industrial group. The simplification of the regions was an essential step in that direction, together with the companies' decision to take on the Aliaxis brand. The integration process will make us stronger, as we will be better placed to serve our customers and to create growth.

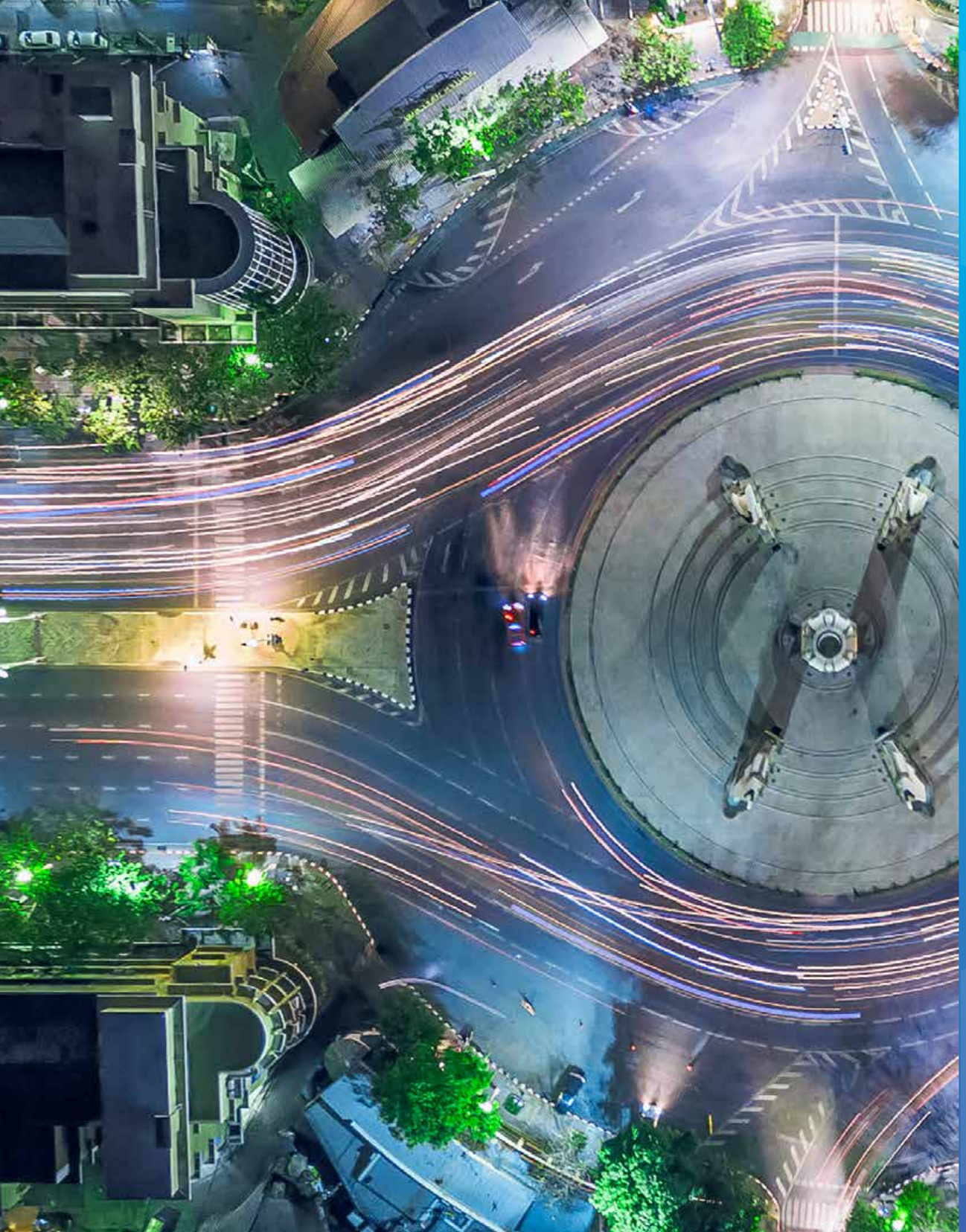
As part of the Integration and Growth strategy, Aliaxis Casella in Italy was the first one to roll out the Aliaxis Operations Model, a common model of operational excellence that strives for continuous improvement, best practice sharing and knowledge management. This project sets out a clear path to make the site future-ready, and the pilot case has been successful: the whole team adapted the mantra "Stronger Together" and supported each other through this process of change. This initiative will be expanded to the rest of EMEA in 2020.

Corporate Responsibility

For Aliaxis EMEA, corporate responsibility in 2019 revolved around environmental targets and giving back to the community. All the businesses of the EMEA division hit their targets regarding water usage and waste disposal in 2019. This achievement is something to be proud of.

Since public concern around the use of plastics is rising, Aliaxis is paying greater attention to recycling and adding more recycled plastic to our products. Several countries are increasing their efforts to recycle other plastics as well. Aliaxis Casella, for example, sponsors a reusable bottles project in a kindergarten, while Aliaxis Alicante collects plastic caps.

Also important to all our businesses, is giving back to the local community. They launch social programmes to collaborate with schools on training children and enhancing their education with career days and scholarships. In Alicante, the assembly line is partly outsourced to a prison work project aimed at supporting the education and reintegration of the prisoners.



2.

Corporate governance

Our Management

The Board of Directors delegates responsibility for the day-to-day management of the Group to the Chief Executive Officer, in his capacity as Managing Director. The Group is organised around four operational divisions: Americas, APAC (Asia-Pacific), India and EMEA (Europe, Middle-East and Africa).

The Chief Executive Officer presides the Executive Committee (ExCom), which is the key decision taking body in Aliaxis. This ExCom focuses on group-wide issues and assists the CEO in proposing and implementing the overall strategy of the Group as decided by the Board and in creating synergies between the Group's businesses around the globe.

The ExCom is responsible for driving performance and focusing all efforts on the right priorities in a coordinated approach across geographies and functions.

The ExCom consists of the following leadership positions:

Laurent Lenoir
Chief Executive Officer

Koen Sticker
Chief Financial Officer

Ursula Saint Léger
Chief Human Resources & Communications Officer

Gustavo Vianna
Chief Business Officer

William Ledger
Chief Operations & Supply Chain Officer

Tom Van Gyseghem
Chief Growth Officer

The ExCom is supported by the Group's Global Leadership Team (GLT), consisting firstly of the divisional CEOs who oversee each of the operational divisions, and secondly of the functional heads, each in charge of a functional domain for the Group.

Their common mission is to act as a sounding board and sparring partner for the ExCom, build up alignment to ensure fast and flawless implementation of all ExCom decisions, cascade information and make sure our whole organisation across the globe is fully mobilised to deliver the results.

The Global Leadership Team is composed of the following roles:

Divisional roles:

Fausto Bejarano
EMEA

Alex Mestres
Americas

Don McKenzie
APAC

Deepak Mehrotra
India

Functional roles:

Manuel Monard
Legal

Patricia De Lanlay
IT

Daniel Di Tullio
Transformation
(as of November 2019)

Peter Van Bylen
Strategy & Digital
(as of November 2019)

Dominique Neerinck
Innovation, R&D

Frank Thielen
Ventures/M&A

Composition of the Board of Directors

- Olivier van der Rest - Chairman
- Laurent Lenoir - Chief Executive Officer
- George Durman Esquivel
- 3F Advisory sprl (Represented by Olivier Hamoir)
- Andréa Hatschek
- Rajesh Jejurikar (as of May 2019)
- Didier Leroy
- Kieran Murphy
- Marc Nolet de Brauwere
- Yves Noiret (until May 2019)
- Amaury Pelgrims de Bigard
- Patrick Simonard
- Patrick Thomas
- Hélène van Zeebroeck

- Jean-Louis Piérard - Honorary Chairman

Board of Directors and Committees of the Board

Aliaxis S.A. is a private company. Its shares are not listed on any regulated stock market. Nevertheless, the Board is committed to maintaining high standards of corporate governance.

The Board determines the overall strategy of the Group, decides on major investments and monitors the activities of the management in implementing the overall Group strategy.

The Board of Directors met five times during 2019. There are three standing committees. Each of these committees supports the Board in specific aspects of its remit.

Strategy Committee

The Strategy Committee is responsible for reviewing the strategic direction of the Group and makes recommendations to the Board on strategic options.

The Committee met four times during 2019. It was composed of Olivier van der Rest, Jean-Louis de Cartier de Marchienne, 3F Advisory sprl (represented by Olivier Hamoir), Laurent Lenoir, Didier Leroy, Kieran Murphy, Yves Noiret (Chairman until May 2019), Marc Nolet de Brauwere, Patrick Simonard (as of May 2019) and Patrick Thomas (Chairman as of May 2019).

Audit Committee

The Audit Committee supports the Board in monitoring the accounting and financial reporting of the Group. It also focuses on reviewing the scope and results of Aliaxis' external and internal audit procedures.

The Committee met four times in 2019. Its members were Kieran Murphy (Chairman), Amaury Pelgrims de Bigard and Patrick Thomas.

Appointment and Remuneration Committee

The Appointment and Remuneration Committee advises the Board on board-level appointments and supports them in reviewing remuneration at executive-committee level.

The Committee met six times in 2019 and its members were Hélène van Zeebroeck, 3F Advisory sprl (represented by Olivier Hamoir) (Chairman), Didier Leroy, Yves Noiret (until May 2019), Marc Nolet de Brauwere (as of May 2019) and Olivier van der Rest.

Agenda

ANNUAL GENERAL MEETING OF SHAREHOLDERS
Wednesday 27 May 2020
In light of the social distancing and other measures to limit the spread of the COVID-19 virus and ensure safety, the Annual General Meeting will be organised following the modalities of the Royal Decree N°4 of 9 April 2020.

PAYMENT OF DIVIDEND
Wednesday, 1 July 2020

2020 HALF YEAR RESULTS
September 2020
Board of Directors to approve 2020 Half Year results - Press announcement

2020 FULL YEAR RESULTS
March 2021
Board of Directors to approve 2020 Full Year results - Press announcement

3.

Directors' report

Trading review

2019 has seen significant growth in our key geographies such as India and the US, supported by a number of growth investments. This strong performance was undermined by lower results in APAC and Latam leading to a mixed picture. Furthermore, we have actively reshaped our portfolio of activities to strengthen our core. Our new Leadership organisation is now in place to drive strategic implementation at an accelerated pace and to respond decisively to the challenges raised by the recent COVID-19 pandemic.

Divisional review

From a market perspective, Aliaxis continued to benefit from its presence in emerging markets such as India. The North American performance was contrasted with strong performance in the US, offset by a slowdown in Canada. Limited investments in infrastructure adversely impacted our Latin American operations. A similar situation was witnessed in Australia. Yet, New Zealand remained flat benefiting from favourable market conditions despite political uncertainty. In EMEA, results varied across businesses, driven by different market conditions across countries and segments.

EMEA

Overall, our building segment performed well. France continued growing in its renovation market and sales were supported by sustained demand in the non-residential new build sector. Spain and Italy reported strong growth despite stagnation of new housing starts, particularly in the second half of the year. Growth in UK on the other hand was adversely impacted by further contraction of the construction market, and Germany was faced with a challenging competitive landscape.

2019 was a successful year for our infrastructure segment, supported by healthy investments levels in our key markets. Sales growth in the UK was supported by a strong gas projects pipeline. German sales were boosted following catch up of projects delayed in 2018, and the water sub-segment in Spain witnessed solid growth rates.

Our industry segment faced a contrasted performance. France and Spain (irrigation) performed very well behind sustained demand, while domestic German demand remained soft.

The 2019 EMEA strategy focused on developing the division from a collection of businesses into a growing and integrated division that contributes to the Group's global objectives and to further align with our customers' needs. Firstly, the team concentrated on redefining and sharpening the commercial strategy for the different markets. Secondly, further progress was made on the integration of different businesses to become one division that shares resources, leverages synergies and strengthens capabilities to service our customers.

Americas

The North America region witnessed a contrasted performance. 2019 was a record year in the US with a significant increase in average sales and gross margin generation from top 10 customers, despite the negative impact of a tight labour market and adverse weather condition in certain regions. Canada experienced slower growth following lower government spending, which was to a large extent offset by higher margins and an improved product mix.

The strategy for Aliaxis North America in 2019 was to grow organically, as well as through innovation and M&A. This goal was achieved by successfully acquiring Silver-Line Plastics and its four plants, resulting in a more prominent manufacturing presence in the USA. On the investment side, the North American team accelerated its efforts in research, development and innovation to continue developing customer-driven solutions.

The Latin American region was affected by political instability, generally weak economic indicators and strong competitive pressure in most of our key markets like Peru, Costa Rica and Chile. This generated an acceleration of a restructuring program allowing us to mitigate some of the downsides. Focus was given to operational improvement, service level improvement and customer partnership. After a strategic footprint assessment, the region exited the distribution operation in Brazil and announced its exit from the extremely competitive Mexican market.

APAC

After several years of expansion, the Australian building market faced a severe slowdown which materially affected the demand in the Building market. While favourable weather conditions supported the rural and irrigation segment market, infrastructure spent was postponed due to federal elections. New Zealand's market remained flat at a relatively healthy level compared to the prior year.

In 2019, our New Zealand teams mainly focused on product leadership through innovations, commercial excellence programs and operational performance while Australia prioritised product portfolio, niche growth opportunities, manufacturing cost improvements and talent enhancements. Several product introductions in New Zealand drove performance, while cost efficiencies and selective range extension and niche focus in Australia helped mitigating the challenging market environment.

India

Our Indian operation achieved another year of record sales in spite of a weaker agricultural season, as growth continued to be fuelled by housing related initiatives.

Several important initiatives were launched to position us for future growth, including the completion of the second stage of our operations in the North, while rationalising our footprint in the south of the country. We also entered new verticals Industry, Infrastructure and Projects while developing advanced digitally enhanced customer focus and further enlarging our portfolio of products. A new organisational structure was set up to address new growth opportunities by segment with greater efficiency, and to deliver on our growth ambitions.

Financial review

Changes in the scope of consolidation

In August 2019, the Group announced an agreement to acquire Silver-Line Plastics in the US. Silver-Line Plastics is a US owned and operated company that manufactures quality plastic pipe with a comprehensive product offering, featuring PVC, CPVC, PE and PEX. The deal was completed in October 2019.

As of 31 October 2019, the accounts of Silver-Line are fully integrated in the consolidated financial statements of the Group.

On 2 May 2019, the Group completed the divestment of Rheinhütte Pumpen.

On 2 September 2019, the Group sold its Ceramics Business in Germany.

These transactions are described in more detail in Note 6 (Acquisitions and disposals of subsidiaries and non-controlling interests) to the consolidated financial statements.

Statement of comprehensive income

In the 12 months period ended 31 December 2019, Aliaxis reported revenue of € 3,118 million, an increase of 0.7% compared to 2018. At constant exchange rates and excluding the impact of scope changes, revenue is in line with the same period last year. Foreign exchange positively impacted the Group's sales by 1.5%, due to the strengthening of the major trading currencies against the EUR, mainly US dollar (5.2%), the Canadian dollar (2.9%) and the Indian rupee (2.3%), partly offset by the weakening of the Australian dollar (1.9%). Scope changes negative impacted reported sales by 0.8% compared to 2018.

The gross profit was € 836 million (2018: € 842 million), representing 26.8% (2018: 27.2%) of revenue. Commercial, administrative and other income and charges amounted to € 513 million (2018: € 569 million), or 16.4% (2018: 18.4%) of sales.

Operating profit (EBIT) for the year was € 324 million, an overall increase of € 51 million or 18.4%. At constant scope and exchange rates, the increase was 18.1%. 2019 was characterised by a mix of underlying business performances, with India and the US continuing to deliver record results, and a successful turnaround in the Ventures division. This has been more than offset by EMEA, APAC and Latam following challenging market conditions. The increase in EBIT in 2019 at constant rate was mainly driven by the adjusted items.

EBIT has also been positively impacted by a settlement in H1 of 2019, following a technical claim which is above the average level of previous years. As is common with many manufacturing and distribution businesses, Aliaxis is, in the ordinary course of their activities, from time to time involved in such proceedings.

The adjusted items represented a net exceptional income of € 62.5 million in 2019, compared to a net exceptional cost of € 35 million in 2018. The adjusted items predominately relate to (pre-tax) capital gain on divestments in 2019 (€ 114 million), partially offset by transformation and restructuring initiatives (€ 30 million). In addition, the Group reported goodwill impairment of € 39 million, whist no goodwill impairment was recognised in 2018.

Excluding the impact of the adjusted items, the Current EBIT amounted to € 300 million, a decrease of € 8.0 million or 2.7% versus last year. The current EBIT margin amounted to 9.6%, compared to 10.0% in 2018.

Excluding depreciation and amortisation, current EBITDA amounted to € 440 million, an overall increase of € 25 million or 6.0%. At constant scope and exchange rates, current EBITDA increased by € 23.7 million or 5.7%. First adoption of IFRS 16 had a positive impact on 2019 CEBITDA of € 35.1 million.

Finance income and expenses mainly consisted of net interest expenses of € 18 million (2018: € 21 million). An analysis of finance income and expense is given in notes 13 (Finance expenses) and 14 (Finance income) to the consolidated financial statements.

The group operates a policy of managing its interest rate exposure, and part of its debt was covered throughout the year by fixed interest rate swaps. The proportion of the debt covered by such instruments reduces in line with the debt maturity dates. The balance of the group's debt remained at variable interest rates. The management of interest rate exposure is explained in notes 5 (Financial risk management) and 30 (Financial instruments) to the consolidated financial statements.

Income taxes, consisting of current and deferred taxes, amounted to € 109 million (2018: € 87 million), representing an effective income tax rate of 37.2% (2018: 37.9%). The reconciliation of the aggregated weighted nominal tax rate (28.3%) with the effective tax rate is set out in note 15 (Income taxes) to the consolidated financial statements.

The group's share of the profit for 2019 was € 183 million (2018: € 137 million). The group's earnings per share in 2019 were € 2.33 (2018: € 1.74), an increase of 33.9%.

Other comprehensive income for the period, net of income tax, increased by € 40 million from € -18 million in 2018 to € 22 million in 2019, mainly explained by the positive impact of exchange rate movements due to the strengthening of the major trading currencies against the EUR in 2019 compared to last year. The increase was partially offset by the change in accounting policies (IFRIC23). The equity movement is explained below.

The Group has contributed, to the different local authorities in all the countries in which it operates, current taxes of €122 million (excl. withholding taxes on the Group dividend), employers' social security contribution of €80 million (excl. employees' social security contribution and payroll taxes) and taxes to be considered as operating expenses of € 9 million (excl. VAT, duties,.)

Statement of financial position

Intangible assets, consisting of goodwill and other intangible assets, amounted to € 815 million at 31 December 2019 (2018: € 793 million). The increase is attributable to the acquisition of Silver-Line as a change in the consolidation of € 55 million, the capital expenditure of € 12 million and the positive currency translation of € 18 million, partially offset by the annual amortisation of intangible assets of € 15 million, the impairment of € 39 million of Goodwill and the net impact of the deconsolidation of € 13 million. Further details on movements in intangible assets are set out in note 16 (Intangible assets) to the consolidated financial statements.

Property, plant and equipment amounted to € 963 million at 31 December 2019, compared to € 806 million at the end of the previous year. The main part of the net increase of € 157 million was attributable to the new capital expenditures of € 140 million, the impact of the first adoption of IFRS 16 of € 113 million, the acquisition of Silver-Line as a change in the consolidation scope of € 50 million, the positive currency translation of € 18 million partly offset by the depreciation of the period of € 124 million and the divestments of € 35 million.

Assets held for sale decreased to € 6 million as at 31 December 2019 (2018: € 48 million). The assets and liabilities of Rheinhütte Pumpen were considered and classified as Assets and Liabilities Held For Sale in 2018. This business has been sold by the Group in 2019 (See Note 6).

Non-cash working capital amounted to € 429 million at 31 December 2019 (31 December 2018: € 463 million). As at 31 December 2019, working capital represented 13.8% (2018: 15.0%) of revenue, which represents the lowest point in the annual cycle, reflecting the seasonal nature of the group's activities.

The equity attributable to equity owners of the company increased from € 1,251 million in 2018 to € 1,401 million in 2019 mainly as a result of the net profit of the reporting period (€ 183 million), and the positive impact of exchange rate movements (€ 64 million), partially offset by the change in accounting policy 'IFRIC23' (€ 48 million) and the negative impact of the net dividends paid (€ 46 million).

Non-controlling interests at 31 December 2019 amounted to € 7 million (2018: € 7 million). The result of the net profit for the reporting period (€ 1 million) was offset by the negative impact of the net dividends paid (€ 1 million).

Deferred tax liabilities amounted to € 67 million at 31 December 2019 (2018: € 79 million). Deferred tax assets were € 35 million (2018: € 40 million). Further details on movements in deferred taxes are set out in note 27 (Deferred tax assets and liabilities) to the consolidated financial statements.

Net Financial Debt:

(in € million)	31 Dec 2019	31 Dec 2018
Non-current borrowings	983	1,076
Non-current leases	88	3
Current borrowings	143	69
Current leases	30	1
Cash and cash equivalents	(486)	(386)
Bank overdrafts	13	13
Total	**771**	**775**

Net financial debt at 31 December 2019 decreased by € 4 million. The major cash flows during the year arose from cash generated by the group's operations (€ 442 million) and the divestment of the Pumps and the Ceramics activities (€ 184 million), less the price paid for the acquisition of Silver-Line (€ 134 million), the capital expenditures made during the year (€ 117 million – excl. leasing), tax payments (€ 107 million), working capital changes (€ 55 million), net dividends paid (€ 47 million), net interest payments (€ 13 million) and the first adoption of the new IFRS 16 standard (€ 146 million).

The return on capital employed in 2019 was 15.0% (2018: 12.8%). The group's share of return on equity was 13.8% (2018: 9.8%).

Our people

The Group has made significant progress towards becoming One Aliaxis in 2019. We are becoming one global company with one brand and global processes that are increasingly aligned. One of our key 2019 HR projects involved implementing WorkDay, a platform that will transform the way we work together. It brings together staff profiles, training courses and payroll data under "one roof". It facilitates HR performance reviews, identifying opportunities for talent development and allows us to be more precise, secure and agile.

WorkDay allows us to optimise talent across all divisions and at every level of our Group, and has already proven to be a big help in our talent review process. In 2019, we reviewed 1,200 people during calibration meetings, ensuring managers applied similar standards and criteria when reviewing employees. It identified those that had demonstrated potential for promotion into a new role, as well as those who could benefit from more challenges.

We also started to roll out a new Enterprise Resource Planning (ERP) tool globally. Aliaxis Alicante in Spain was the first to pilot this tool, a significant milestone as we transform towards an agile company capable of growing in a competitive market. The new ERP system will provide useful information for our work and decision making, while enabling enhanced planning and management of resources across all business areas.

In 2019, we optimised the organisation of our global HR department by adopting key transversal and global processes. All countries are now aligned, proving that Aliaxis is truly becoming one global company.

Our D.N.A. structure blueprint was extended to the operations, marketing and sales teams in 2019. A cornerstone of this process is aligning employee capabilities with the needs of the company.

We also strengthened our communications team in 2019, both at local and regional levels, with a key focus on supporting our transformation programme. Team trainings improved our ability to identify and respond to incidents and crisis, and the communications team has strengthened our social media strategy and increased our online visibility.

An important aspect of our ambition to be the "Best Place to Work" is valuing our employees as they move through their careers. Therefore, we have created a Talent Council and a Compensation and Benefits Council to deliver this. Additionally, our Aliaxis University brings together all of our training programmes to develop our existing talent.

As we are transitioning into a global company, we have expanded our Global Leadership Team to be fully representative of Aliaxis. We have also created an Executive Committee to facilitate the day-to-day business of the Group, allowing us to act with more speed and agility.

For the very first time in Aliaxis history, we have conducted a global employee satisfaction survey, aptly named "Aliaxis & Me". Every employee was invited to participate, with a satisfying take up of 69%. With more than 6,000 comments and questions, we performed well above industry benchmarks. For a first survey, these are encouraging results.

One of the key messages from our employees was that they wanted to have purpose and meaning in their everyday work. People engagement is one of the cornerstones of the Corporate Responsibility Framework we developed in 2019.

Key areas to improve upon included safety, leadership and customer-centricity. We engaged every site to share their individual results with our teams and to work on improvement strategies. In 2021, when the second global engagement survey will be launched, we expect progress in all four sections.

Aliaxis employed 15,511 people in 2019, compared to 16,088 in 2018. The EMEA division accounts for 38% of all staff. North America ranks second with 19.3%, closely followed by Latin America with 17.2% and 14.7% in India. Australasian businesses now employ 11.0%.

The average age of an Aliaxis employee is 44.5 years, but it varies significantly between divisions. In APAC, the average age is 51 years, while in India, the workforce is young, 34 years on average. Across all salaried workers in the Group, 24% are female. Aliaxis is performing better than the industry average of around 20%.

Our innovations

Our ambition in the field of Innovation is based on three main pillars: to increase the productivity of our customers, to preserve water and energy, and to protect water and protect from water. To realise these ambitions, we transformed the organisation of our innovation teams in 2019.

On a global level, we have reorganised our resources and created three central Innovation Centres, who will take the lead in all our efforts in terms of Innovation and R&D. Two of those are the existing platforms in Canada and in France, having a global reach and supporting all regions. The third innovation centre with a global reach will be set up in Bangalore, India, where the process of finding a location was successfully concluded in 2019. The new Indian centre is being constructed, and a search to source over 50 new R&D colleagues has been launched.

Meanwhile, in Europe there was a need to streamline efforts. The regional research and development teams in Europe were scattered across the continent and have now been regrouped in three regional technical centres, each serving a specific business segment. This centralisation will lead to a more focused and efficient innovation pipeline, an increase in expertise and support, to the benefit of all our customers.

The innovations portfolio has been significantly streamlined in 2019, in order to prioritise and focus our attention, energy and resources on high-impact projects. This will allow us to speed up our innovation and to create the solutions our customers need. The key areas of our R&D efforts are materials research, new product development, water technologies and digitally innovative products. In 2019, half of our innovation efforts were geared towards the building segment, and half were focusing on infrastructure and industrial applications.

Fostering a global cooperation and exchange of ideas, projects and best practices will allow innovative development to intensify and flourish. In 2019, this cross-fertilisation between the business units delivered many new innovative products and solutions that can be shared and used by other regions as well.

All over Aliaxis, the teams have joined forces to bring our group innovation and research & development strategy and execution to the next level. They were invited to participate in many global activities in 2019, including the Global Innovation Council, the Global Marketing Council, the Global Product Cross-fertilisation team, the Electrofusion Strategy team and a series of Global Ideation workshops. Each of these teams had local or regional employees coming together as a united team to learn and share and to work towards common goals and develop best practices.

The Aliaxis Innovation and R&D teams are also dedicated to developing more environmentally-friendly solutions. We take our corporate responsibility very seriously and are putting more efforts in working on green and safe alternatives: by focusing more on the recyclability of our products on the one hand and increasing the amount of recycled plastics in our products on the other. Teams in Canada, France, the UK and Italy, for example, made good progress in terms of products integrating more recycled PVC.

Saving raw materials is another key focus. The team in Italy reduced the amount of resin needed in fittings by 30% through a redesign of the fittings. Additionally, this new fitting also has the advantage of improving acoustic performance and made the items lighter, which facilitates handling and saves on energy costs for production as well as distribution.

Collaboration with customers also remains one of the essential ways to drive innovation. One of the patents we filed in 2019, for example, concerns a valve we co-developed with a customer. We actively support and encourage this culture of customer-driven innovation by organising focus group workshops to identify our customer's needs.

In addition, the innovation team adopts an open innovation approach. By working together with external technology providers, research institutions and start-ups, our internal innovation products will be complemented with external inputs. To this extent, we took a major step in 2019 by concluding a three-year research agreement with the Heriot-Watt University in Edinburgh, focusing on drainage solutions for high-rise buildings.

Furthermore, we are collaborating with leading universities in material science, such as ESPCI (Ecole supérieure de physique et de chimie industrielle) in Paris on the func-

tionalisation of PE and PVC to improve the performance and recyclability, and with PCCL (Polymer Competence Centre Leoben – Austria) to develop new test methods to predict the long term performance of materials.

Our impact on the environment

Our efforts to be a responsible company are translating into a renewed focus on our environmental goals. Within our new corporate responsibility framework, Aliaxis is addressing its environmental impacts across energy use, greenhouse gas emissions, waste, recycling, raw materials, chemical use and water consumption. We collect environmental performance data to track progress and identify areas for improvement. The results for 2019 show significant progress in reducing energy use, emissions of greenhouse gases, and waste sent for disposal.

We remain committed to providing customers with sustainable water management solutions that deliver clean water, minimise water usage and leakage, and help them to manage water efficiently in both water-scarce and water-abundant regions.

Improving our energy efficiency and seeking more renewable energy sources are also high on the company's agenda. This will further reduce our emissions of greenhouse gases and our contribution to climate change.

As public concern regarding plastics is growing, we recognise our responsibility in designing, formulating, manufacturing and supplying our products in ways that minimise environmental impacts. Progress has been made to redesign products so that they use significantly less raw materials, as well as to make production more efficient and thus save energy and reduce greenhouse gas emissions.

Several of our businesses have succeeded in changing product formulations to increase amounts of recycled materials without any loss of quality. Going forward, more of our efforts will be aimed at industry-wide initiatives focusing to build infrastructure and regulatory frameworks that will support increased circularity for our raw materials as we continue to design products from recycled and other materials with lower environmental impacts. This expertise will be shared among the regions.

In 2020, we will strengthen our focus on improving the control of plastic powder and pellet loss in our factories. Powder and pellets released into the environment can contribute to the contamination of our waterways and oceans, so it is important that we have robust practices to prevent this. We have also identified an opportunity to reduce single-use plastic when we package our products for delivery and are looking for alternatives.

We have also taken considerable steps towards producing metal-free plastics. The primary heavy metals (i.e. cadmium and lead) have been eliminated from our products. Currently, we are researching ways to replace some of the solvents we use in our adhesives with safer alternatives. We are committed not only to complying with regulations restricting the use of certain chemicals but also to proactively look for alternative formulations with lower health, safety and environmental impacts.

In order to achieve our environmental ambitions, existing strategies on waste and water efficiency will be further developed. Our corporate responsibility framework includes workstreams on Sustainability Water Management, Green Innovation, Circular Economy and Energy Use & Climate Change as well as Environmental Standards, so new and more ambitious strategies to achieve our goals can be developed.

Risks and uncertainties

The risk profile of the companies within the Aliaxis Group is similar to that of other manufacturing and distribution companies operating in an international environment, and includes economic and sector risks as well as credit, liquidity and market risks arising from exposure to currencies, interest rates and commodity prices. The Group is also exposed to more specific risks of, for example, public, product and employer's liability, property damage and business interruption and the risks from administrative, fiscal and legal proceedings.

Developments in respect of administrative, fiscal, and legal proceedings are described as appropriate in notes 28 (Provisions) and 34 (Contingencies) to the consolidated financial statements.

The Group has adopted a range of internal policies and procedures to identify, reduce and manage these risks either at individual company level or, where appropriate, at Group level.

The Group's approach to the management of credit, liquidity and market risks (including commodity, interest rate and currency) is set out in note 5 (Financial risk management) to the consolidated financial statements.

Use of derivative financial instruments

Risks relating to creditworthiness, interest rate and exchange rate movements, commodity prices and liquidity arise in the Group's normal course of business. However, the most significant financial exposures for the Group relate to the fluctuation of interest rates on the Group's financial debt, and to fluctuations in currency exchange rates.

The Group's approach to the management of these risks is described in note 31 (Financial instruments).

Subsequent events

On March 3, 2020, Aliaxis completed the divestment of Harrington Industrial Plastics. This divestment is in line with the Company's strategy to explore new paths for non-core activities. Net proceeds allowed the Group to further deleverage and to further strengthen its balance sheet and financial position in view of the current challenging environment following the COVID-19 outbreak.

Outlook for 2020

Aliaxis is, as many other global industrial groups, facing an unprecedented public health crisis, and all people and business-related implications associated therewith, following the outbreak and spread of COVID-19. The Board of Directors and management are closely following the situation and the Company takes all necessary measures to protect the health and well-being of our people and to ensure business continuity to the benefit of all our stakeholders. The company is entering this crisis with a healthy financial position and robust committed financing in place. Strong sales in the first months of 2020 coupled with the divestment of Harrington in March 2020 allowed to further deleverage and to further strengthen the balance sheet and financial position, in view of the current challenging environment following the COVID-19 outbreak.

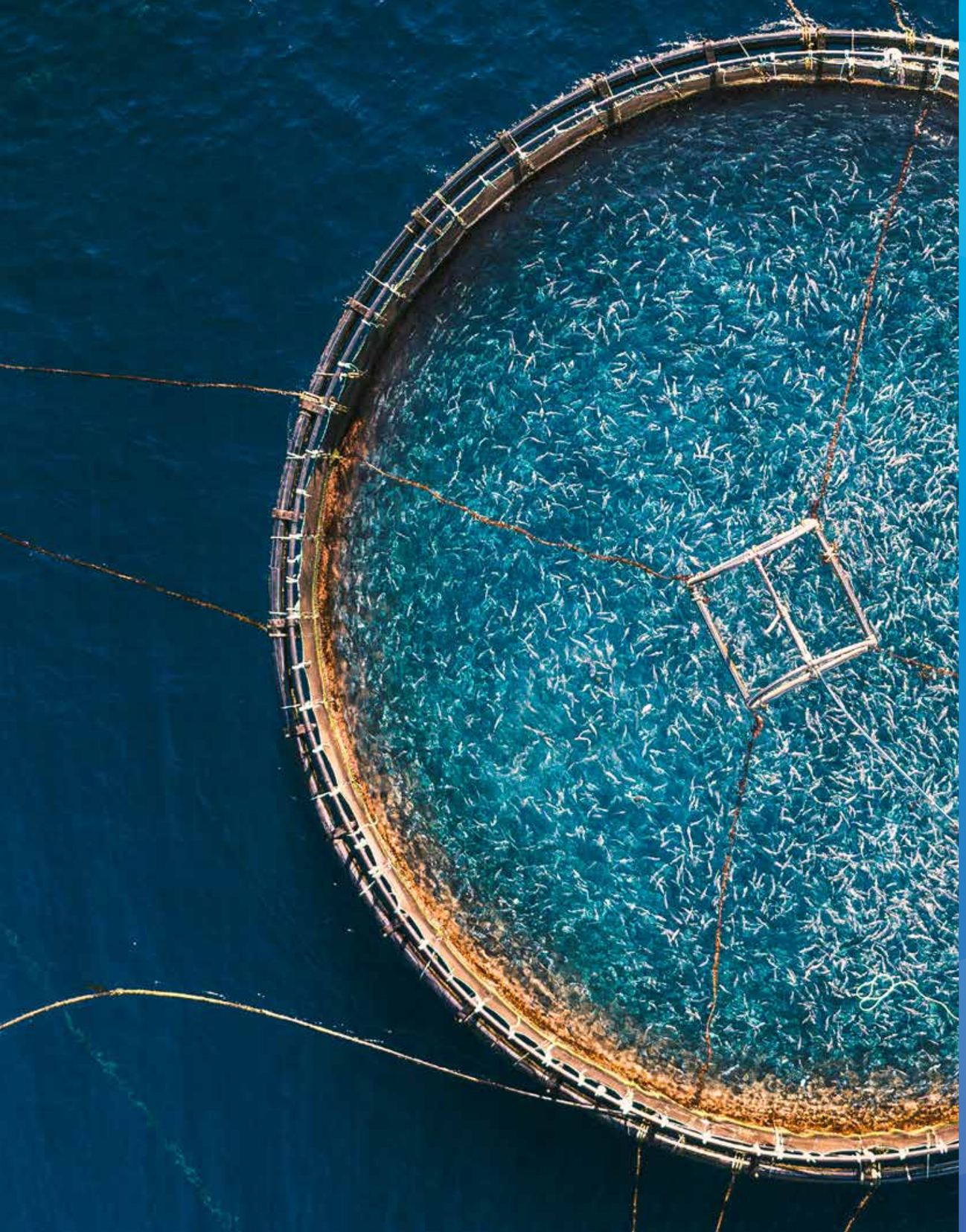
Nevertheless, we monitor the situation closely and are pro-actively taking all necessary contingency measures to ensure we can protect our business, employees and customers.

Dividend

The Board of Directors will propose that the general meeting of shareholders on 27 May 2020 approves the distribution of a gross dividend of € 0.2935 per share. Upon approval by the General meeting, this dividend will become payable as of 1 July 2020.

Statutory appointments

The mandate of 3F Advisory SRL as Director, represented by Mr. Olivier Hamoir, will expire at the next general meeting of shareholder on May 27, 2020. He is candidate for re-election. Upon recommendation of the Appointments and Remuneration Committee, the Board of Directors proposes to the shareholders the re-election for a term of three years ending at the general meeting of shareholders of 2023.



4.

Consolidated financial statements

Consolidated financial statements

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Consolidated statement of profit or loss and other comprehensive income

Consolidated statement of profit or loss

For the year ended 31 December (in € thousand)	Notes	2019	2018*
Revenue		**3,117,571**	3,095,009
Cost of sales		**(2,281,317)**	(2,252,820)
Gross profit		**836,254**	842,188
Commercial expenses		**(254,149)**	(266,815)
Administrative expenses		**(242,590)**	(231,028)
R&D expenses		**(24,201)**	(23,606)
Other operating income / (expenses)	7	**(15,225)**	(12,231)
Operating profit exclusive adjusted items		**300,090**	308,508
Adjusted items:			
Net result on sale of businesses	8	**113,575**	-
Restructuring costs	9	**(30,040)**	(26,541)
Impairment of non-financial assets	10	**(47,545)**	(3,054)
Other income / (expenses)	11	**(12,487)**	(5,709)
Operating profit		**323,592**	273,205
Finance income	14	**9,095**	6,081
Finance expenses	13	**(39,127)**	(48,854)
Profit before income taxes		**293,559**	230,432
Income tax expense	15	**(109,253)**	(87,301)
Profit for the period		**184,306**	143,131
of which attributable to Group equity holders		***183,034***	*137,103*
of which attributable to non-controlling interests		***1,273***	*6,028*
Earnings per share (in €):			
Basic earnings per share	24	**2.33**	1.74
Diluted earnings per share	24	**2.33**	1.74

* The Group initially applied IFRS 16 at 1 January 2019, using the modified retrospective approach. Under this approach, comparative information is not restated and the cumulative effect of initially applying IFRS 16 is recognised in retained earnings at the date of initial application.

The notes on pages 50 to 126 are an integral part of these consolidated financial statements.

Consolidated statement of other comprehensive income

For the year ended 31 December (in € thousand)	Notes	2019	2018*
Profit for the period recognised in the income statement		**184,306**	143,131
Items that will never be reclassified to profit and loss:			
Fair value changes on investments	31	**87**	(12)
Remeasurement IAS 19 & other (net of taxes)	26b	**3,147**	9,344
Items that are or may be reclassified to profit and loss:			
Foreign currency translation differences for foreign operations	23	**63,716**	(27,223)
Net profit/(loss) on hedge of net investment in foreign operations	31	**(1,012)**	(1,486)
Cost of hedging reserves - changes in FV	31	**(761)**	430
Effective portion of changes in fair value of cash flow hedges	31	**7,728**	6,540
Change in fair value of cash flow hedges transferred to profit or loss	31	**(2,472)**	(5,848)
Deferred taxes related to hedges		**(690)**	(145)
Other comprehensive income for the period, net of income tax		**69,743**	*(18,399)*
Total comprehensive income for the period		**254,049**	*124,733*
of which attributable to Group equity holders		**252,624**	*121,222*
of which attributable to non-controlling interests		**1,425**	*3,511*

* The Group initially applied IFRS 16 at 1 January 2019, using the modified retrospective approach. Under this approach, comparative information is not restated and the cumulative effect of initially applying IFRS 16 is recognised in retained earnings at the date of initial application.

The notes on pages 50 to 126 are an integral part of these consolidated financial statements.

Consolidated statement of financial position

As at 31 December (in € thousand)	Notes	2019	2018*
Intangible assets and goodwill	16	**814,674**	792,746
Property, plant & equipment	17	**963,479**	806,087
Investment properties	18	**3,491**	3,443
Other assets		**34,433**	18,060
Derivative financial instruments with positive fair values	31	**50,310**	45,514
Deferred tax assets	27	**35,162**	40,239
Employee benefits	26b	**48,718**	34,938
Non-current assets		**1,950,265**	1,741,027
Inventories	20	**581,151**	546,763
Current tax assets		**14,391**	12,263
Amounts receivable	21	**384,406**	381,512
Derivative financial instruments with positive fair values	31	**95**	4,278
Cash & cash equivalents	22	**486,143**	386,458
Assets held for sale	19	**6,116**	48,142
Current assets		**1,472,302**	1,379,415
TOTAL ASSETS		**3,422,567**	3,120,442

As at 31 December (in € thousand)	Notes	2019	2018*
Share capital	23	**62,666**	62,666
Share premium	23	**13,332**	13,332
Retained earnings and reserves		**1,325,290**	1,174,871
Equity attributable to Group equity holders		**1,401,289**	1,250,870
Non-controlling interests	23	**7,242**	7,297
TOTAL EQUITY		**1,408,530**	1,258,167
Loans and borrowings	25	**982,690**	1,075,840
Leases	32	**88,377**	2,740
Employee benefits	26b	**79,042**	74,132
Deferred tax liabilities	27	**66,853**	78,768
Provisions	28	**27,246**	15,428
Derivative financial instruments with negative fair values, including fair value adjustment on debt	31	**9,088**	9,867
Other amounts payable	30	**19,053**	35,573
Non-current liabilities		**1,272,349**	1,292,349
Loans and borrowings	25	**143,261**	69,165
Leases	32	**30,062**	604
Bank overdrafts	22	**12,749**	12,836
Provisions	28	**33,483**	29,545
Derivative financial instruments with negative fair values, including fair value adjustment on debt	31	**4,675**	1,868
Current tax liabilities	29	**74,950**	14,282
Amounts payable	30	**442,509**	433,387
Liabilities held for sale	19	**-**	8,239
Current liabilities		**741,688**	569,926
TOTAL LIABILITIES		**2,014,037**	1,862,275
TOTAL EQUITY & LIABILITIES		**3,422,567**	3,120,442

* The Group initially applied IFRS 16 at 1 January 2019, using the modified retrospective approach. Under this approach, comparative information is not restated and the cumulative effect of initially applying IFRS 16 is recognised in retained earnings at the date of initial application.

The notes on pages 50 to 126 are an integral part of these consolidated financial statements.

Consolidated statement of changes in equity

2018

(in € thousand)	Notes	Share capital	Share premium	Hedging reserve	Reserve for own shares	Translation reserve	Retained earnings	Total capital & reserves	Non-controlling interests	TOTAL EQUITY
As at 1 January 2018		62,666	13,332	(7,183)	(160,199)	(98,348)	1,742,505	1,552,774	71,377	**1,624,150**
Profit for the period							137,103	137,103	6,028	**143,131**
Other comprehensive income :										
Foreign currency translation differences	23			(70)		(24,635)	(1)	(24,706)	(2,517)	**(27,223)**
Net gain on hedge of net investment (net of tax)	23					(1,486)		(1,486)	-	**(1,486)**
Cash flow hedges (net of tax)	31			978				978	-	**978**
Remeasurement IAS19 & other	26b						9,344	9,344	-	**9,344**
FV changes on investments	31						(12)	(12)		**(12)**
Transactions with Group equity holders :										
Own shares acquired	23, 26c				(7,649)			(7,649)		**(7,649)**
Own shares sold	23, 26c				4,625		1,936	6,561		**6,561**
Dividends to shareholders	23						(42,000)	(42,000)	(1,149)	**(43,149)**
Acquisition of non-controlling interest without change in control	6			(28)			(380,009)	(380,037)	(66,442)	**(446,479)**
As at 31 December 2018		62,666	13,332	(6,303)	(163,224)	(124,469)	1,468,868	1,250,870	7,297	**1,258,167**

2019

(in € thousand)	Notes	Share capital	Share premium	Hedging reserve	Reserve for own shares	Translation reserve	Retained earnings	Total capital & reserves	Non-controlling interests	TOTAL EQUITY
As at 1 January 2019		62,666	13,332	(6,303)	(163,224)	(124,469)	1,468,868	1,250,870	7,297	**1,258,167**
Change in accounting policies IFRIC 23							(47,688)	(47,688)		**(47,688)**
Restated as at 1 January 2019		62,666	13,332	(6,303)	(163,224)	(124,469)	1,421,180	1,203,182	7,297	**1,210,479**
Profit for the period							183,034	183,034	1,273	**184,306**
Other comprehensive income :										
Foreign currency translation differences	23			(32)		63,590	5	63,564	153	**63,716**
Net gain on hedge of net investment (net of tax)	23					(1,012)		(1,012)	-	**(1,012)**
Cash flow hedges (net of tax)	31			3,804				3,804	-	**3,804**
Remeasurement IAS19 & other	26b						3,147	3,147	-	**3,147**
FV changes on investments	31						87	87		**87**
Transactions with Group equity holders :										
Own shares acquired	23, 26c				(9,454)			(9,454)		**(9,454)**
Own shares sold	23, 26c				395		285	680		**680**
Dividends to shareholders	23						(46,093)	(46,093)	(1,338)	**(47,432)**
Scope changes				-	499		(149)	350	(142)	**208**
As at 31 December 2019		62,666	13,332	(2,531)	(171,784)	(61,891)	1,561,496	1,401,289	7,242	**1,408,530**

The notes on pages 50 to 126 are an integral part of these consolidated financial statements.

Consolidated statement of cash flows

For the year ended 31 December (in € thousand)	Notes	2019	2018
OPERATING ACTIVITIES			
Profit before income tax		**293,559**	230,432
Depreciation	17, 18	**124,341**	91,734
Amortisation	16	**15,428**	15,003
Impairment losses on PP&E, intangible assets and assets held-for-sale	17, 16	**50,917**	3,369
Impairment losses on working capital and others		**3,475**	7,156
Increase / (decrease) in provisions	28	**36,218**	25,424
Financial instruments - fair value adjustment through profit or loss	31	**921**	(18,189)
Net interest (income) / expenses	14, 13	**17,823**	20,924
Dividend income	14	**(322)**	(204)
Loss / (gain) on sale of intangible assets	7	**2**	-
Loss / (gain) on sale of property, plant and equipment	7	**(554)**	(203)
Loss / (gain) on sale of investment property		**(0)**	(1)
Loss / (gain) on sale of businesses	6	**(113,509)**	-
Other - miscellaneous - mainly FX		**13,718**	28,447
Gross cash flows from operating activities		**442,016**	403,892
Decrease / (increase) in inventories		**(14,799)**	(57,100)
Decrease / (increase) in amounts receivable		**12,401**	(12,113)
Increase / (decrease) in amounts payable		**(23,756)**	17,980
Increase / (decrease) in provisions	28	**(28,740)**	(22,392)
Changes in working capital and provisions		**(54,894)**	(73,625)
Cash generated from operations		**387,122**	330,267
Income tax paid	15	**(106,594)**	(77,524)
Net cash flows from operating activities		**280,527**	252,743

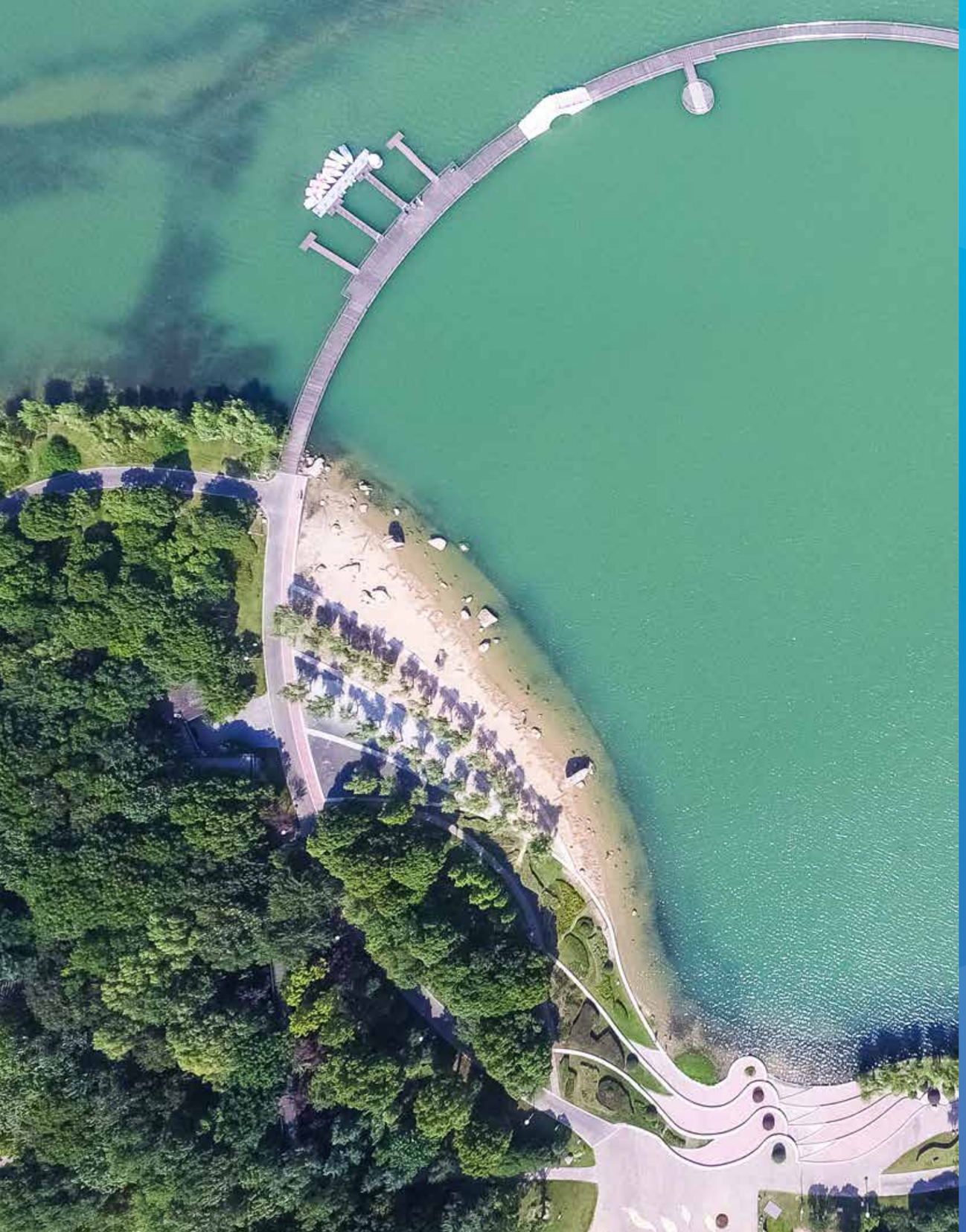
For the year ended 31 December (in € thousand)	Notes	2019	2018
INVESTING ACTIVITIES			
Proceeds from sale of property, plant and equipment	17	**1,839**	2,150
Proceeds from sale of intangible assets		**8**	-
Proceeds from sale of investment properties		**0**	1
Proceeds from sale of assets held-for-sale		**2,319**	720
Proceeds from sale of investments		**918**	29
Repayment of loans granted	25	**26**	-
Sale of a business, net of cash disposed of	6	**183,338**	-
Acquisition of businesses, net of cash acquired	6	**(133,925)**	(510,742)
Acquisition of property, plant and equipment	17	**(105,062)**	(82,655)
Acquisition of intangible assets	16	**(11,681)**	(3,773)
Acquisition of investment properties	18	**-**	-
Acquisition of other investments		**(34)**	(24)
Loans granted	25	**(174)**	(162)
Dividends received		**376**	204
Interest received		**6,984**	5,397
Net cash flows used in investing activities		**(55,067)**	(588,855)

The notes on pages 50 to 126 are an integral part of these consolidated financial statements.

For the year ended 31 December (in € thousand)	Notes	2019	2018
FINANCING ACTIVITIES			
Proceeds from sale of treasury shares	26c	**680**	6,561
Proceeds from obtaining borrowings	25	**33,551**	628,676
Repurchase of treasury shares	26c	**(9,454)**	(7,649)
Repayment of borrowings	25	**(98,566)**	(145,051)
Dividends paid		**(47,212)**	(42,788)
Interest paid		**(19,622)**	(24,399)
Cash flows from financing activities		**(140,623)**	415,350
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS		**84,837**	79,238

Cash and cash equivalents

For the year ended 31 December (in € thousand)	Notes	2019	2018
As at 1 January 2019	22	**373,622**	304,386
Net (decrease) / increase in cash and cash equivalents		**84,837**	79,239
Cash and cash equivalents resulting from scope changes and A/L HFS transfers	19	**(2,324)**	(1,194)
Effect of exchange rate fluctuations on cash held		**17,259**	(8,809)
As at 31 December 2019	22	**473,394**	373,622



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Notes to the consolidated financial statements

Notes to the consolidated financial statements

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1. Corporate information

Aliaxis S.A. ("the Company") is a company domiciled in Belgium. The address of the Company's registered office is Avenue Arnaud Fraiteur, 15/23, 1050 Brussels. The consolidated financial statements of the Company as at and for the year ended 31 December 2019 comprise the Company, its subsidiaries and interest in equity accounted investees (together referred to as the "Group" or "Aliaxis").

Aliaxis employed around 15,500 people, is present in more than 40 countries throughout the world, and is represented in the marketplace through more than 100 manufacturing and selling companies, many of which trade using their individual brand identities. The Group is primarily engaged in the manufacture and sale of plastic pipe systems and related building and sanitary products which are used in residential and commercial construction and renovation as well as in a wide range of industrial and public utility applications.

The financial statements have been authorised for issue by the Company's Board of Directors on 20 April 2020.

2. Basis of preparation

(a) Statement of compliance

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) effective and adopted by the European Union as at 1 January 2019.

Aliaxis was not obliged to apply any European carve-outs from IFRS, meaning that the financial statements are fully compliant with IFRS. The Company has not elected for early application of any of the standards or interpretations which were not yet effective on the reporting date.

(b) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis, except for the following:

- derivative financial instruments are measured at fair value;
- financial instruments at fair value through profit or loss are measured at fair value;
- share-based payment arrangements;
- employee benefits;
- asset held for sale.

(c) Functional and presentation currency

These consolidated financial statements are presented in euro, which is the Company's functional currency. All financial information presented in euro has been rounded to the nearest thousand, except when otherwise indicated.

(d) Use of estimates and judgments

The preparation of consolidated financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

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

In particular, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amount recognised in the consolidated financial statements, are described in the following notes:

- Note 16 – measurement of the recoverable amounts of cash-generating units;
- Note 26b – measurement of defined benefit obligations;
- Note 26c – measurement of share-based payments;
- Note 27 – use of tax losses;
- Notes 28 and 34 – provisions and contingencies;
- Note 29 – liabilities for uncertain tax positions;
- Note 31 – valuation of derivative financial instruments and determination of effectiveness for hedge accounting.

Measurement of fair values

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

When measuring the fair values of an asset and liability, the Group uses market observable data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

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

- Note 18 – investment properties;
- Note 26c – share-based payments;
- Note 31 – financial instruments.

3. Significant accounting policies

Except for the changes explained below, the accounting policies adopted are consistent with those of the previous financial year.

As of 1 January 2019, Aliaxis adopted the following new and amended IFRS standards and interpretations:

- IFRS 16 "Leases", makes a distinction between a service contract and a lease based on whether the contract conveys the right to control the use of an identified asset and introduces a single, on-balance sheet accounting model for lessees. A lessee recognises a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are optional exemptions for short-term leases and leases of low value items. Lessor accounting remains similar to the previous standard – i.e. lessors continue to classify leases as finance or operating leases.

  IFRS 16 replaces existing leases guidance including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases—Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

  The Group will recognise new assets and liabilities for its operating leases of warehouses and factory facilities. The nature of expenses related to those leases will now change because the Group will recognise a depreciation charge for right-of-use assets and interest expense on lease liabilities.

  Previously, the Group recognised operating lease expense on a straight-line basis over the term of the lease, and recognised assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognised.

  The Group applies the practical expedient to grandfather the definition of a lease on transition. This means that it applies IFRS 16 to all contracts entered into before 1 January 2019 and identified as leases in accordance with IAS 17 and IFRIC 4.

Impact of the changes in accounting policies due to the application of IFRS 16 leases:

The Group adopted IFRS 16 using the modified retrospective approach of adoption with the date on initial application of 1 January 2019. Comparative information has not been restated for IFRS 16, though the lease liabilities are now presented on a separate line in the consolidated statement of financial position.

Following the adoption of IFRS 16 Leases, the Group has changed its accounting policy for leases. See Note 3(e) for the revised accounting policies for leased assets.

The Group elected to use the transition practical expedient allowing the standard to be applied only to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 at the date of initial application. The Group also elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of less than 12 months and lease contracts for which the underlying asset is of low value ('low-value assets'). There are no material lease agreements whereby the Group is lessor.

The effect of adoption IFRS 16 as at 1 January 2019 is, as follows:

(in million €)	January 1, 2019
Right-of-use assets	
Land & buildings	79.0
Plant, machinery & equipment	18.4
Other (Furnitures, Vehicles and IT)	15.6
TOTAL ASSETS	113.0
Leases	113.0
TOTAL LIABILITIES	113.0

Leases previously classified as finance leases

The Group did not change the initial carrying amounts of recognised assets and liabilities at the date of initial application for leases previously classified as finance leases (i.e., the right-of-use assets and lease liabilities equal the lease assets and liabilities recognised under IAS 17). The requirements of IFRS 16 were applied to these leases from 1 January 2019.

Leases previously accounted for as operating leases

The Group recognised right-of-use assets and lease liabilities for those leases previously classified as operating leases, except for short-term leases and leases of low-value assets. The right-of-use assets were recognised based on the amount equal to the lease liabilities. Lease liabilities were recognised based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at the date of initial application. The Group also applied the available practical expedients wherein it:

- Used a discount rate which has been determined along the currency in which the lease contract is denominated and the duration of the lease contract;
- Excluded the initial direct costs from the measurement of the right-of-use asset at the date of initial application;
- Used hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

Reconciliation with operating lease commitments disclosed as at 31 December 2018

Operating lease commitments amounted to € 115 million as per 31 December 2018 (under IAS 17). On adoption of IFRS 16 on 1 January 2019 the Group recognised ROU assets and lease liabilities amounting to € 113 million in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17 Leases.

Based on a high-level analysis, the difference can mainly be explained by:

- The effect resulting from discounting of the lease liabilities for an amount of € -15 million;
- The different treatment of extension option, exemption of low value and short-term contracts and excluding of non-lease components for a net amount of € 10 million;
- The impact of exchange rate for an amount of € 2 million.

- IFRIC 23 Uncertainty over Income Tax Treatments issued on 7 June 2017, clarifies how to apply the recognition and measurement requirements in IAS 12 when there is uncertainty over income tax treatments. In such a circumstance, an entity shall recognise and measure its current or deferred tax asset or liability applying the requirements in IAS 12 based on taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates determined applying this Interpretation. An entity is required to assume that a tax authority with the right to examine and challenge tax treatments will examine those treatments and have full knowledge of all related information. Detection risk is not considered in the recognition and measurement of uncertain tax treatments. The entity should measure the impact of the uncertainty using the method that best predicts the resolution of the uncertainty; either the most likely amount method or the expected value method.

  Aliaxis applied IFRIC 23 by adjusting equity on initial application, without adjusting comparatives, on 1 January 2019. The total impact of applying IFRIC 23 on Aliaxis 's reserves as at 1 January 2019 amounts to € 47.7 million. As a result, the liabilities for uncertain tax positions as per 1 December 2019, calculated under IFRIC 23 guidance, increased from € 10 million to € 53.1 million and deferred tax assets decreased from € 40.2 million to € 35.6 million.

The Group considered that the following new and amended IFRS standards and interpretations, also adopted as of 1 January 2019, did not result in significant changes in the consolidated financial statements.

Annual improvements to IFRSs 2015-2017 Cycle, issued on 12 December 2017, which covers the following minor amendments:

- IFRS 3 Business Combinations: the amendments clarify that a company remeasures its previously held interest in a joint operation when it obtains control of the business.

- IFRS 11 Joint Arrangements: the amendments clarify that a company does not remeasure its previously held interest in a joint operation when it obtains joint control of the business.

- IAS 12 Income Taxes: the amendments clarify that a company accounts for all income tax consequences of dividend payments consistently with the transactions that generated the distributable profits – i.e. in profit or loss, OCI or equity.

- IAS 23 Borrowing Costs: the amendments clarify that a company treats as part of general borrowings any borrowing originally made to develop an asset when the asset is ready for its intended use or sale.

Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28) issued on 12 October 2017, clarifies how companies should account for long-term interests in an associate or joint venture, to which the equity method is not applied, using IFRS 9.

Plan Amendment, Curtailment or Settlement (Amendments to IAS 19) issued on 7 February 2018, clarifies that on amendment, curtailment or settlement of a defined benefit plan, the current service cost and net interest for the remainder of the annual reporting period are calculated using updated actuarial assumptions – i.e. consistent with the calculation of a gain or loss on the plan amendment, curtailment or settlement.

The amendment also clarifies that an entity first determines any past service cost, or a gain or loss on settlement, without considering the effect of the asset ceiling. This amount is recognised in profit or loss. The entity then determines the effect of the asset ceiling after plan amendment, curtailment or settlement. Any change in that effect is recognised in other comprehensive income (except for amounts included in net interest).

Except as mentioned above, the accounting policies set out below have been applied consistently by all of the reporting entities that Aliaxis has defined in its reporting and consolidation process.

Certain comparative amounts in the Notes to the consolidated financial statements have been reclassified conform to the current year's presentation.

In the consolidated financial statements of 2019, the adjusted items (in previous years 'the non-recurring items) in the profit and loss statement have been reported in more detail. Leases have been separately disclosed in the consolidated statement of financial position.

Aliaxis has 31 December as the reporting date. The consolidated financial statements are presented before the effect of the profit appropriation of the Company proposed to the Annual Shareholders' Meeting as dividends are recognised as a liability in the period they are declared.

(a) Basis of consolidation

A list of the most important subsidiaries and equity accounted investees is presented in Note 36.

Subsidiaries

Subsidiaries are entities controlled by the Group. 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. 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.

Non-controlling interests

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

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

Transactions eliminated on consolidation

Intra-group balances, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Loss of control

Upon the loss of control, the Group derecognises the assets and liabilities of the subsidiary, any related, non-controlling interests and the other components of equity related to the subsidiary. Any resulting gain or loss is recognised in profit or loss. If the Group retains any interest in the former subsidiary, then such interest is measured at fair value at the date that control is lost.

(b) Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currency of Aliaxis entities at exchange rates at the date of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. Non-monetary assets and liabilities denominated in foreign currencies that are carried at historical cost are translated at the reporting date at exchange rates at the dates of the transactions. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are translated at the reporting date at the exchange rate at the date the fair value was determined. Foreign currency differences arising on retranslation are recognised in profit or loss, except for differences arising on the retranslation of equity instruments at FVOCI or a financial liability designated as a hedge of the net investment in a foreign operation (see below), which are recognised directly in other comprehensive income (OCI) under translation reserve.

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to euro at exchange rates at the reporting date. The income and expenses of foreign operations are translated to euro at average exchange rates for the year approximating the foreign exchange rates at the dates of the transactions. The components of shareholders' equity are translated at historical exchange rates.

Foreign currency differences are recognised in OCI and presented in the foreign currency translation reserve (translation reserve) in equity. However, if the operation is a non-wholly owned subsidiary, then the relevant proportionate share of the translation difference is allocated to non-controlling interests. When a foreign operation is disposed of such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. When the Group disposes of only part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of its investment in an associate or joint venture that includes a foreign operation while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

Hedge of net investment in a foreign operation

The Group applies hedge accounting to foreign currency differences arising between the functional currency of the foreign operation and the euro regardless of whether the net investment is held directly or through an intermediate parent. Foreign currency differences arising on the retranslation of a financial liability designated as a hedge of a net investment in a foreign operation are recognised directly in OCI under translation reserve, to the extent that the hedge is effective. To the extent that the hedge is ineffective, such differences are recognised in profit or loss. When the hedged net investment is disposed of, in part or in full, the relevant cumulative amount in equity is transferred to profit or loss as an adjustment to the profit or loss on disposal.

In addition, monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur in the foreseeable future are a part of the Group's net investment in such foreign operation. Any foreign currency differences on these items are recognised directly in OCI under translation reserve, and the relevant cumulative amount in OCI is transferred to profit or loss when the investment is disposed of, in part or in full.

Exchange rates

The following major exchange rates have been used in preparing the consolidated financial statements.

	Average		Reporting date	
	2019	**2018**	**2019**	**2018**
AUD	**1.611**	1.580	**1.600**	1.622
CAD	**1.486**	1.530	**1.460**	1.561
GBP	**0.878**	0.885	**0.851**	0.895
NZD	**1.700**	1.706	**1.665**	1.706
USD	**1.120**	1.181	**1.123**	1.145
INR	**78.835**	80.708	**80.187**	79.730

(c) Intangible assets and goodwill

Goodwill

Goodwill that arises on the acquisition of subsidiaries is presented with intangible assets.

The carrying amount of goodwill is allocated to those reporting entities that are expected to benefit from the synergies of the business combination and those are considered as the Group's cash-generating units.

Goodwill is expressed in the functional currency of the reporting entity to which it is allocated and is translated to euro using the exchange rate at the reporting date.

In respect of equity accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment.

Goodwill is measured at cost less accumulated impairment losses (see Note 3k).

The Group elected not to restate those business combinations that occurred prior to the transition to IFRS; this goodwill represented the amount, net of accumulated amortisation, recognised under the Group's previous accounting framework, Belgian GAAP.

For acquisitions as of 1 January 2010, goodwill represents the excess of the consideration transferred with respect to the acquisition over the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the acquiree. When the excess is negative (negative goodwill), it is recognised immediately in profit or loss.

Intangible assets acquired in a business combination

Intangible assets such as customers' relationships, trademarks, patents acquired in a business combination initially are recognised at fair value. If the criteria for separate recognition are not met, they are subsumed under goodwill.

The calculation of the fair value of a customer list is based on the discounted cash flows (after tax) derived from the sales related to such customers after (i) applying an attrition rate (as observed over a relevant historical period of time), and (ii) accounting for all related operating costs (except financial) including specific contributory charges on assets and labour.

Research and development

Expenditure on research activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding is recognised in profit or loss when incurred.

Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and Aliaxis intends to and has sufficient resources to complete development and to use or sell the asset. The expenditure capitalised includes capitalised borrowing costs and the cost of materials, direct labour and overhead costs that are directly attributable to preparing the asset for its intended use. If the recognition criteria referred to above are not met, the expenditure is recognised in profit or loss as an expense when incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation (see below) and accumulated impairment losses (see Note 3k).

Other intangible assets

Other intangible assets that are acquired by Aliaxis which have finite useful lives are measured at cost less accumulated amortisation (see below) and accumulated impairment losses (see Note 3k).

Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in profit or loss when incurred.

Amortisation

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets with a finite life, from the date that they are available for use. Goodwill is not amortised. The estimated useful lives are as follows:

• Patents, concessions and licenses	5 years
• Capitalised development costs	3-5 years
• IT software	5-7 years
• Drawings	25 years

The value of the customer list is amortised -with a straight-line method- along a useful life which corresponds to the number of years until the present value of the last individual cash-flow becomes insignificant.

Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

(d) Property, plant and equipment

Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation (see below) and impairment losses (see Note 3k). Aliaxis elected to measure certain items of property, plant and equipment at 1 January 2005, the date of transition to IFRS, at fair value and used those fair values as deemed cost at that date.

Cost includes expenditures that are directly attributable to the acquisition of the asset; e.g. cost of materials and direct labour, costs incurred to bring the asset to its working condition and location for its intended use, any relevant costs of dismantling and removing the asset and restoring the site on which the asset was located when the Group has an obligation. Purchased software that is integral to the functionality of the related equipment and borrowing costs are capitalised, as part of that equipment.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the net proceeds from disposal with the carrying amount of property, plant and equipment and are recognised within other income/expenses in profit or loss.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Subsequent expenditure

The cost of replacing part of an item of property, plant and equipment is recognised in the carrying amount of the item only if it is probable that the future economic benefits embodied within such part will flow to the Group and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is recognised in profit or loss on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. Leased assets are depreciated over the shorter of the lease term and their useful lives, unless there is certainty that the Group will take ownership at the end of the lease term. Land is not depreciated.

Items of property, plant and equipment are depreciated from the date that they are installed and are ready for use.

The estimated useful lives are as follows:

- Buildings:
  - Structure 40-50 years
  - Roof and cladding 15-40 years
  - Installations 15-20 years
- Plant, machinery and equipment:
  - Silos 20 years
  - Machinery and surrounding equipment 10 years
  - Moulds 3-5 years
- Furniture 10 years
- Office machinery 3-5 years
- Vehicles 5 years
- IT & IS 3-5 years

Depreciation methods and useful lives, together with residual values if not insignificant, are reassessed at each reporting date and adjusted if appropriate.

(e) Leased assets

- Up to 31 December 2018, Aliaxis applied the leases guidance including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases—Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. The accounting policies were as follows:

Leases under the terms of which Aliaxis assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition the leased asset, as well as the lease liability, is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset.

Payments made under operating leases are recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognised as a reduction of the total lease expense, over the term of the lease. When an operating lease is terminated before the lease period is expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which termination takes place.

Minimum lease payments made under finance leases are 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.

Contingent lease payments are accounted for by revising the minimum lease payments over the remaining term of the lease when the lease adjustment is confirmed.

- As of 1 January 2019, Aliaxis adopted the new IFRS 16 interpretation which replaces existing leases guidance including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases—Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. The new accounting policies are as follows:

Leases are recognised as a right-of-use asset and corresponding liability at the date of which the leased asset is available for use by the Group. Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received.

Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets.

The Group elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of less than 12 months ('short-term leases') and lease contracts for which the underlying asset is of low value ('low-value assets').

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects the Group exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognised as expenses in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate which has been determined along two dimensions:

- The currency in which the lease contract is denominated;
- The duration of the lease contract. For simplicity, durations have been grouped in categories with individual appropriate rates being extrapolated when necessary and averaged thereafter.

After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the income statement over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g. changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

Lease payments that are due within 12 months are classified as current liabilities. All lease payments that are due at least 12 months after the balance sheet date are classified as non-current liabilities.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss.

Some of the car leases contain variable lease payments. It concerns car lease agreements that contain a Terminal Rental Adjustment Clause (TRAC): a final settlement calculation is made at termination of the lease to determine the final rental adjustment. This final rent adjustment is a rent payment (or credit) that reflects actual usage of the vehicle while under lease. This final amount is not known at lease commencement. The rental adjustment amount is not a specified amount but depends upon known factors such as monthly depreciation and initial acquisition cost, and several unknown factors at lease commencement, such as mileage, condition of the vehicle, wear and tear, damage, geography of operation, disposal channel, and other factors. Together, these factors generally represent "use" of the vehicle. Payments that vary due to use of the underlying asset and vehicle mileage specifically are variable lease payments. The final rental adjustment is recognised as expense or, in case of a credit, as a reduction of expenses when realised.

(f) Investment properties

Investment property is property held either to earn rental income or for capital appreciation or for both. Investment property is measured at cost less accumulated depreciation and impairment losses (see Note 3k).

Depreciation is recognised in profit or loss on a straight-line basis over the estimated useful life of the property consistent with the useful lives for property, plant and equipment (see Note 3d).

The fair values, which are determined for disclosure purposes, are based on market values, being the estimated amount for which a property could be exchanged on the date of the valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. In the absence of current prices in an active market, the valuations are prepared by considering the aggregate of the estimated cash flows expected to be received from renting out the property. A yield that reflects the specific risks inherent in the net cash flows is then applied to the net annual cash flows to arrive at the property valuation.

(g) Other non-current assets

Investments in equity securities

Investments in equity securities are undertakings in which Aliaxis does not have significant influence or control. These investments are designated as financial assets at FVTPL which are, subsequent to initial recognition, measured at fair value, except for those equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured. Those equity instruments that are excluded from fair valuation are stated at cost. Changes in the fair value, other than impairment losses (see Note 3k), are recognised directly in OCI. When an investment is derecognised, the cumulative gain or loss previously recognised directly in equity is transferred to profit or loss.

Investments in debt securities

Investments in debt securities are classified at fair value through profit or loss or fair value through OCI and are carried at fair value with any resulting gain or loss respectively recognised in profit or loss or directly in OCI. Impairment losses (see Note 3k) and foreign exchange gains and losses are recognised in profit or loss.

Other financial assets

A financial asset is classified at fair value through profit or loss if it is held for trading or is designated as such upon initial recognition. Financial assets are designated at fair value through profit or loss if Aliaxis manages such investments and makes purchase and sale decisions based on their fair value. Upon initial recognition, attributable transaction costs are recognised in profit or loss when incurred. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognised in profit or loss.

Other assets

These assets are measured at amortised cost using the effective interest rate method, less any impairment losses (see Note 3k).

(h) Inventories

Inventories are measured at the lower of cost and net realisable value. The cost of inventories is based on the weighted average principle for raw materials, packaging materials, consumables, purchased components and goods purchased for resale, and on the first-in first-out principle for finished goods, work in progress and produced components.

The cost includes expenditure incurred in acquiring the inventories and bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost also includes production costs and an appropriate share of production overheads based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

(i) Amounts receivable

Amounts receivable comprise trade and other receivables. These amounts are carried at amortised cost, less impairment losses (see Note 3k).

(j) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with final maturities of three months or less at acquisition date. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are included as a component of cash and cash equivalents for the purpose of the statement of cash flows.

(k) Impairment

Financial assets

For financial instruments and contract assets, the Group recognises loss allowances for ECLs on financial assets measured at amortised cost and debt investments measured at FVOCI. The Group measures loss allowances at an amount equal to lifetime ECLs, except for the following, which are measured at 12-month ECLs:

- Debts securities that are determined to have low credit risk at the reporting date; and
- Other debt securities and bank balances for which credit risk has not increased significantly since initial recognition.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when:

- The debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- The financial asset is more than 365 days past due.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument. 12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after reporting date. The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flow due to the entity in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

At each reporting date, the Group assesses whether the financial assets carried at amortised cost and debt securities at FVOCI are credit impaired. A financial asset is credit impaired when one or more events that have an impact on the estimated future cash flows of the financial assets have occurred.

Loss allowance for financial assets measured at amortised cost are deducted from the gross carrying amounts of the assets. For debt securities at FVOCI, the loss allowance is charged to profit or loss and is recognised in OCI.

Non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories (see Note 3h) and deferred tax assets (see Note 3v), are reviewed at each reporting date to determine whether there is any external or internal indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated at each reporting date.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit ("CGU") exceeds its recoverable amount. A CGU is the smallest identifiable asset group that generates cash flows that largely are independent from other assets and groups. Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the units and then to reduce the carrying amount of the other assets in the unit (or group of units) on a pro rata basis.

The recoverable amount of an asset or CGU 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 an appropriate pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.

The Group's overall approach as to the level for testing goodwill impairment is at the lowest level at which goodwill is monitored for external reporting purposes, which is in general at CGU. The recoverable amount of the CGUs to which the goodwill belongs is based on a discounted free cash flow approach, based on acquisition valuation models. These calculations are corroborated by valuation multiples or other available fair value indicators.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists.

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 amortisation, if no impairment loss had been recognised.

(l) Discontinued operations and assets held for sale

Discontinued operations

A discontinued operation is a component of the Group's business that represents a separate major line of business or geographical area of operations that has been disposed of or is held for sale, or is a subsidiary acquired exclusively with a view to resale. Classification as a discontinued operation occurs upon disposal or when the operation meets the criteria to be classified as held for sale, if earlier. When an operation is classified as a discontinued operation, the comparative statement of comprehensive income is re-presented as if the operation had been discontinued from the start of the comparative period.

Assets held for sale

Non-current assets (or disposal groups comprising assets and liabilities) that are expected to be recovered primarily through sale rather than through continuing use are classified as held for sale. Immediately before classification as held for sale, the assets (or components of a disposal group) are measured in accordance with the Group's accounting policies. Thereafter, the assets (or disposal group) are generally measured at the lower of their carrying amount and fair value less cost to sell. Any impairment loss on a disposal group is first allocated to goodwill, and then to remaining assets and liabilities on a pro rata basis, except that no loss is allocated to inventories, financial assets, deferred tax assets and employee benefit assets, which continue to be measured in accordance with the Group's accounting policies. Impairment losses on initial classification as held for sale and subsequent gains or losses on remeasurement are recognised in profit or loss. Gains are not recognised in excess of any cumulative impairment loss. Intangible assets and property, plant and equipment once classified as held for sale are not amortised or depreciated. In addition, equity accounting of equity-accounted investees ceases once classified as held for sale.

(m) Share capital

Ordinary shares

Incremental costs directly attributable to the issue of ordinary shares and share options are recognised as a deduction from equity.

Repurchase of share capital

When share capital recognised as equity is repurchased, the amount of the consideration paid, including directly attributable costs, net of any tax effects, is recognised as a deduction from equity. Repurchased shares are classified as treasury shares and are presented in the reserve for own shares. When treasury shares are sold or reissued subsequently, the amount received is recognised as an increase in equity, and the resulting surplus or deficit on the transaction is transferred to/from retained earnings.

Dividends

Dividends are recognised as liabilities in the period in which they are declared.

(n) Interest-bearing loans and borrowings

Interest-bearing loans and borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing loans and borrowings are stated at amortised cost with any difference between the initial amount and the maturity amount being recognised in profit or loss over the expected life of the instrument on an effective interest rate basis.

(o) Employee benefits

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and has no legal or constructive obligation to pay further amounts. Obligations for contributions to defined contribution pension plans are recognised as an expense in profit or loss in the period during which related services are rendered by employees.

Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value and the fair value of any plan assets are deducted. The discount rate is the yield at the reporting date on AA credit-rated bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The calculation is performed annually by qualified actuaries using the projected unit credit method.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognised immediately in profit or loss.

The Group recognises gains and losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs. The gain or loss on curtailment or settlement comprises any resulting change in the fair value of plan assets and any change in the present value of the defined benefit obligation.

Remeasurements of the net defined benefit liability, which comprises actuarial gains and losses, the return on plan assets (excluding interests) and the effect of the asset ceiling (if any, excluding interests) are recognised immediately in OCI. The Group determines the net interest expenses (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 expenses and other expenses related to a defined benefit plans are recognised in profit or loss.

When the calculation results in a benefit to Aliaxis, the recognised asset is limited to the present value of any future refunds from the plan or reductions in future contributions to the plan.

In order to calculate the present value of economic benefits, consideration is given to any minimum funding requirements that apply to any plan in the Group. An economic benefit is available to the Group if it is realisable during the life of the plan, or on settlement of the plan liabilities.

Other long-term employee benefits

The Group's net obligation in respect of long-term employee benefits other than pension plans such as service anniversary bonuses is the amount of future benefit that employees have earned in return for their service in the current and prior periods. The obligation is calculated using the projected unit credit method and is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is the yield at the reporting date on AA credit-rated bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid. Any actuarial gains or losses are recognised in profit or loss in the period in which they arise.

Termination benefits

Termination benefits are recognised as an expense when Aliaxis is demonstrably committed, without realistic possibility of withdrawal, to a formal detailed plan to terminate employment before the normal retirement date. Termination benefits for voluntary redundancies are recognised if Aliaxis has made an offer encouraging voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting date, then they are discounted to their present value.

Short-term benefits

Short-term employee benefit obligations such as bonuses are measured on an undiscounted basis and are expensed as the related service is provided. A provision is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if Aliaxis 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..

Share-based payment transactions

The fair value of options granted to employees is measured at grant date. The amount is recognised as an employee expense, with a corresponding increase in equity within retained earnings, and spread over the period in which the employees become unconditionally entitled to the options. The amount recognised as an expense is adjusted to reflect the actual number of share options that vest.

The fair value of options granted to employees is measured using the Black & Scholes valuation model. Measurement inputs include share price on measurement date, exercise price of the instrument, expected volatility (based on historic volatility adjusted for changes expected due to publicly available information), weighted average expected life of the instruments (based on historical experience and general option holder behaviour), expected dividends, and the risk-free interest rate (based on government bonds). Service and non-market performance conditions attached to the transactions are not taken into account in determining fair value.

(p) Provisions

A provision is recognised if as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows 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 recognised as finance cost.

Warranties

A provision for warranties is recognised when the underlying products or services are sold. The provision is based on historical warranty data and a weighing of all possible outcomes against their associated probabilities.

Restructuring

A provision for restructuring is recognised when Aliaxis has approved a detailed and formal restructuring plan, and the restructuring either has commenced or has been announced publicly before the reporting date. Future operating losses are not provided for.

Onerous contracts

A provision for onerous contracts is recognised when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured as the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Group recognises any impairment loss on the assets associated with the contract.

(q) Amounts payable

Amounts payable which comprise trade and other amounts payable represent goods and services provided to the Group prior to the end of the reporting date which are unpaid. These amounts are carried at amortised cost.

(r) Derivative financial instruments and hedge accounting

Aliaxis holds derivative financial instruments to hedge its exposure to foreign currency and interest rate risks arising from operational, financing and investment activities. As a policy, Aliaxis does not engage in speculative transactions and does not therefore hold or issue derivative financial instruments for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

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.

On initial designation of the derivative as the hedging instrument, the Group formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. The Group makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be highly effective in offsetting the changes in the fair value or cash flows of the respective hedged items attributable to the hedged risk, with the ultimate objective to validate the economic relationship between the hedging instrument and the hedged item. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported profit or loss.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in profit or loss when incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

Cash flow hedges

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative hedging instrument designated as a cash flow hedge is recognised in OCI and accumulated in the hedging reserve. The effective portion of changes in the fair value of the derivative that is recognised in OCI is limited to the cumulative change in fair value of the hedged item, determined on a present value basis, from inception of the hedge. Any ineffective portion of changes in fair value is recognised in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial items, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flow is no longer expected to occur, then the amounts that have been accumulated in the hedging reserve and the cost of hedging reserve are immediately reclassified to profit and loss.

The Group designates only the change in fair value of the spot element of forward exchange contracts as the hedging instrument in cash flow hedging relationships. The change in fair value of the forward element of forward exchange contracts is separately accounted for a cost of hedging and recognised in a costs of hedging reserve within equity.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item, the amount accumulated in the hedging reserve and the cost of hedging reserve is included directly in the initial cost of the non-financial item when it is recognised.

In other cases, the amount recognised in equity is transferred to profit or loss in the same period that the hedged item affects profit or loss.

Hedge of net investment in foreign operation

Where a derivative financial instrument hedges a net investment in a foreign operation, the portion of the gain or the loss on the hedging instrument that is determined to be effective is recognised directly in equity within the translation reserve, while the ineffective portion is reported in profit or loss.

The amount recognised in OCI is reclassified to profit or loss as a reclassification adjustment on disposal of the foreign operation.

Fair value hedges

When a derivative financial instrument hedges the variability in fair value of a recognised asset or liability, any resulting gain or loss on the hedging instrument is recognised in profit or loss. The hedged item is also stated at fair value in respect of the risk being hedged, with any gain or loss being recognised in profit or loss.

Economic hedges

Hedge accounting is not applied to derivative instruments that economically hedge monetary assets and liabilities denominated in foreign currencies. Changes in the fair value of such derivatives are recognised in profit or loss as part of foreign currency gains and losses.

(s) Revenue

Goods sold

Revenue from the sale of goods is measured at the fair value of the consideration received or receivable, net of returns and allowances, trade discounts and volume rebates. Revenue from the sale of goods is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods. The Group considers whether there are other promises in the contract that are separate performance obligations to which a portion of the transaction price needs to be allocated. In determining the transaction price for the sale of goods, the Group considers the effects of variable consideration and the existence of significant financing components (if any).

Rental income

Rental income from investment properties is recognised in profit or loss in other operating income on a straight-line basis over the term of the lease. Lease incentives granted are recognised as an integral part of the total rental income, over the term of the lease.

Government grants

Government grants are recognised initially as deferred income when there is reasonable assurance that they will be received and that Aliaxis will comply with the conditions associated with the grant. Grants that compensate the Group for expenses incurred are recognised in profit or loss on a systematic basis in the same periods in which the expenses are recognised. Grants that compensate the Group for the cost of an asset are recognised in other operating income and expense on a systematic basis over the useful life of the asset.

(t) Adjusted items

Adjusted items are those items that are considered by management not to relate to items in the ordinary course of activities of the Group. They are presented separately as they are important for the understanding of users of the consolidated financial statements of the performance of the Group and this compared to the returns defined in the regulatory frameworks applicable to the Group and its subsidiaries. Adjusted items relate to:

- Income and expenses resulting from the sale of businesses
- Restructuring costs linked to the transformation and restructuring initiatives of the Group
- Impairment of non-financial assets (incl. goodwill impairment)
- Other income and expenses related to items outside the ordinary course of activities of the Group

(u) Finance income and expenses

Finance income comprises interest income on funds invested, dividend income, net gains on the disposal of financial asset measured at fair value through OCI, changes in the fair value of financial assets at fair value through profit or loss, foreign currency gains, and gains on hedging instruments that are recognised in profit or loss. Interest income is recognised as it accrues, using the effective interest method. Dividend income is recognised on the date that the Group's right to receive payment is established.

Finance expenses comprise interest expense on borrowings, unwinding of the discount on provisions, foreign currency losses, changes in the fair value of financial assets at fair value through profit or loss, impairment losses recognised on financial assets (except losses on receivables) and losses on hedging instruments that are recognised in profit or loss. Borrowing costs that are not directly attributable to the acquisition or construction of a qualifying asset are recognised in profit or loss using the effective interest method.

Foreign currency gains and losses are reported on a net basis as either finance income or finance expense depending on whether foreign currency movements are in a net gain or net loss position.

(v) Income tax

Income tax expense comprises current and deferred tax. Income tax expense is recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity, or in other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. Current tax payable also includes any tax liability arising from the declaration of dividends.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes (including differences arising from fair values of assets and liabilities acquired in a business combination). Deferred tax is not recognised for the initial recognition of goodwill, the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they probably will not reverse in the foreseeable future.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and on the same taxable entity or group of entities.

In determining the amount of current and deferred tax the Company takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Company believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Company to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(w) Contingencies

Contingent liabilities are not recognised in the consolidated financial statements, except if they arise from a business combination. They are disclosed, when material, unless the possibility of a loss is remote. Contingent assets are not recognised in the consolidated financial statements but are disclosed, when material, if the inflow of economic benefits is probable.

(x) Events after the reporting date

Events after the reporting date which provide additional information about the Group's position as at the reporting date (adjusting events) are reflected in the consolidated financial statements. Events after the reporting date which are non-adjusting events are disclosed in the notes to the consolidated financial statements, when material.

(y) Earnings per share

Aliaxis presents basic and diluted earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares, which comprise share options granted to employees.

(z) New standards and interpretations not yet adopted

A number of new standards, amendments to standards and interpretations are not yet effective for the year ended 31 December 2019, and have not been applied in preparing these consolidated financial statements:

Amendment to IFRS 3 Business Combinations, issued on 22 October 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 1 January 2020 with earlier application permitted. The amendments are not expected to have a material impact on the Group's consolidated statements. The amendment has not yet been endorsed by the EU.

Amendments to IAS 1 and IAS 8: Definition of Material was issued on 31 October 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 1 January 2020 with earlier application permitted. The amendments are not expected to have a material impact on the Group's consolidated statements. The amendment has been endorsed by the EU.

On 29 March 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 1 January 2020, whereas the Board will start using the revised Conceptual Framework immediately. The amendments are not expected to have a material impact on the Group's consolidated statements. These amendments have been endorsed by the EU.

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 summarised as follows:

- 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.
- 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 1 January 2020 with earlier application permitted. The amendments re not expected to have a material impact on the Group's consolidated statements. The amendment has been endorsed by the EU.

4. Business combinations

(a) Acquisition method

Business combinations are accounted for using the acquisition method when control is transferred to the Group (definition of control see 3a). The consideration transferred in the acquisition is measured at fair value, as are the identifiable net assets acquired.

Any goodwill that arises is tested annually for impairment.

Any gain on a bargain purchase is recognised immediately in profit or loss.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in profit or loss.

Transaction costs related to the acquisition, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration meets the definition of a financial instrument and is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes to in the fair value of the contingent consideration are recognised in profit or loss.

Put options granted to non-controlling shareholders are recognised as a liability measured at the present value of the exercise price and accounted for using the present-access method when the NCI have present access to the returns that are the subject of the put options. Under this method, NCI continue to be recognised because the non-controlling shareholders still have present access to the returns associated with the underlying ownership interests. All changes in the carrying amount of the liability are recognised in equity. The financial liability arising from the put option is not included in the consideration transferred of a business combination but accounted for separately. If the put option expires unexercised, then the put liability is reversed against equity.

(b) Determination of fair values

The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under IFRS 3 are recognised at their fair value at acquisition date as follows:

- The fair value of property, plant and equipment is based on market values. The fair value of property is the estimated amount for which a property could be exchanged on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. The fair value of items of plant, equipment, fixtures and fittings is based on the quoted market prices for similar items when available and depreciated replacement costs when appropriate.
- The fair value of patents and trademarks is based on the discounted estimated royalty payments that have been avoided as a result of the patent or trademark being owned. The fair value of other intangible assets is based on the discounted cash flows expected to be derived from the use and eventual sale of the assets.
- The fair value of customer list is based on the discounted cash flows (after tax) derived from the sales related to such customers after (i) applying an attrition rate (as observed over a relevant historical period of time), and (ii) accounting for all related operating costs (except financial) including specific contributory charges on assets and labour.
- The fair value of inventories is determined based on its estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.
- Contingent liabilities are recognised at fair value on acquisition, if their fair value can be measured reliably. The amount represents what a third party would charge to assume those contingent liabilities, and such amount reflects all expectations about possible cash flows and not the single most likely or the expected maximum or minimum cash flow.

5. Financial risk management

(a) Overview

This note presents information about the Group's exposure to credit, liquidity and market risks, the Group's objectives, policies and processes for measuring and managing risk, as well as the Group's management of capital. Further quantitative disclosures are included throughout the notes to the consolidated financial statements.

Risks relating to credit worthiness, interest rate and exchange rate movements, commodity prices and liquidity arise in the Group's normal course of business. However, the most significant financial exposures for the Group relate to the fluctuation of interest rates on the Group's financial debt and to fluctuations in currency exchange rates.

The Group addresses these risks and defines strategies to limit their economic impact on its performance in accordance with its financial risk management policy. Such policy includes the use of derivative financial instruments. Although these derivative financial instruments are subject to fluctuations in market prices subsequent to their acquisition, such changes are generally offset by opposite changes in the value of the underlying items being hedged.

The Audit Committee is responsible for overseeing how management monitors compliance with the Group's financial risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Audit Committee relies on the monitoring performed by management.

The Group considers that the Brexit process would not represent a material risk for the Group and that it will not impact the Group's normal course of business in any material way.

(b) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Group's receivables from customers.

The Group's exposure to credit risk is influenced by the individual characteristics of each customer, its industry and the country or region where it operates. The Group's main sales distribution channels are wholesale and retail do-it-yourself (DIY) chains. Despite a trend towards consolidation in Europe and North America, the diversity of Aliaxis' product range helps it to maintain a wide customer portfolio and to avoid as much as possible exposure to any significant individual customer.

Aliaxis management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit above a certain amount. The Group does not require collateral, except in very rare circumstances, in respect of financial assets.

Investments are allowed only in liquid securities and only with counterparties that have a robust credit rating. Transactions involving derivatives are with counterparties with whom the Group has a signed netting agreement and who have sound credit ratings. Management does not expect any counterparty to fail to meet its obligations.

The Group establishes an allowance for impairment that represents its estimate of incurred losses in respect of trade and other receivables and investments. The main components of this allowance are a specific loss component that relates to individually significant exposures, and a collective loss component established for groups of similar assets in respect of losses that have been incurred but not yet identified. The collective loss allowance is determined based on historical data of payment statistics for similar financial assets.

The maximum exposure to credit risk is represented by the carrying amount of each financial asset, including derivatives in the statement of financial position.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due.

Typically, the Group ensures that it has sufficient cash on demand to meet expected operational expenses, including the servicing of financial obligations; this excludes the potential impact of extreme circumstances that cannot reasonably be predicted.

In addition, the Group has secured access to Banking Facilities and Debt Capital Markets instruments.

- As for Banking Facilities, the Group has (i) a multi-currency revolving credit facility of € 680 million committed until July 2021 which has been extended until July 2022 for an amount of € 631 million, and (ii) a Club Deal multi-currency Facility of € 400 Million maturing in July 2022 made up of a € 200 million amortising Term Loan Tranche, and a € 200 million bullet Revolving Tranche.
- As for Debt Capital Markets Instruments, the Group has issued (i) an amount of USD 223 million of US Private Placement notes for a period of 10 to 12 years maturing from 2021 to 2023; (ii) an amount of USD 35 Million of US Private Placement notes for a period of 10 years maturing in 2025, and an amount of EUR 18 million of US Private Placement (swap note) for a period of 12 years maturing in 2027; and (iii) an amount of EUR 120 million of Shuldschein certificates for a period of 5 to 7 years maturing from 2020 to 2022.

(d) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, commodity prices, interest rates or equity prices will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

The Group buys and sells derivatives, and also incurs financial liabilities, in order to manage market risks. All such transactions are carried out within the financial risk management policies. Generally, the Group seeks to apply hedge accounting in order to manage volatility in profit or loss.

Currency risk

The Group is exposed to foreign currency risk on transactions such as sales, purchases, borrowings, dividends, fees and interests, denominated in non-euro currencies. Currencies giving rise to such risk are primarily the Canadian dollar (CAD), the Australian dollar (AUD), the New Zealand dollar (NZD), the pound sterling (GBP), the Indian rupee (INR) and the US dollar (USD). Where there is no natural hedge, the foreign currency risk is primarily managed by the use of forward exchange contracts. All contracts have maturities of less than one year. Foreign currency risk on firm commitments and forecast transactions is subject to hedging (in whole or in part) when the underlying operating transactions are reasonably expected to occur within a determined time frame. Hedge accounting is not applied to derivative instruments that economically hedge monetary assets and liabilities denominated in foreign currencies. Changes in the fair value of such derivatives are recognised in profit or loss as part of foreign exchange gains and losses.

The Group's policy is to partially hedge the risk arising from consolidating net assets denominated in non-euro currencies by permanently maintaining liabilities through borrowings or cross currency swaps in such non-euro currencies. Where a foreign currency borrowing, or cross currency swaps are used to hedge a net investment in a foreign operation, exchange differences arising on translation of the borrowing are recognised directly in OCI within translation reserve. The Group's net investments in Canada, the US, India, Australia, the UK and New Zealand are partially hedged through borrowings or cross currency swaps maintained in Canadian dollars, US dollars, Indian rupees, Australian dollars, pound sterling and New Zealand dollars.

Interest on borrowings is denominated in currencies that match the cash flows generated by the underlying operations of the Group, primarily CAD, EUR, GBP, AUD, INR, and USD. This provides an economic hedge and no derivatives are entered into.

In respect of other monetary assets and liabilities denominated in foreign currencies, the Group ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates when necessary to address short-term imbalances.

Commodity risk

Raw materials used to manufacture the Group's products mainly consist of plastic resins such as polyvinylchloride (PVC), polyethylene (PE) and polypropylene (PP), which are a significant element of the cost of the Group's products. The prices of these raw materials are volatile and tend to be cyclical, and Aliaxis is generally able to recover raw material price increases through higher product selling prices, although sometimes after a time lag. The Group increasingly seeks to optimise its resin purchases thanks to a centralised approach to the procurement of major raw materials.

In addition, the Group is also exposed to the volatility of energy prices (particularly electricity).

Interest rate risk

The Group has floating-rate borrowings exposed to the risk of changes in cash flows, due to changes in interest rates. The Group has also fixed rate debt instruments (US Private Placement Notes denominated in USD and in EUR, or Schuldschein Certificates denominated in EUR).

The Group policy is to hedge its interest rate risk through swaps, cross currency swaps and other derivatives. No derivatives are ever acquired or maintained for speculative or leveraged transactions.

Other market price risk

Demand for the Group's products is principally driven by the level of construction activity in its main markets, including new housing, repairs, maintenance and improvement, infrastructure and industrial markets. Its geographical and industrial spread provides a degree of risk diversification. Demand is influenced by fluctuations in the level of economic activity in individual markets, the key determinants of which include GDP growth, changes in interest rates, the level of new housing starts and industrial and infrastructure investment.

(e) Capital management

The Board's policy is to maintain a strong capital base so as to maintain the confidence of investors, creditors and other stakeholders and to sustain future development of the business. The Board of Directors monitors the return on equity (profit of the year attributable to equity holders of the Group divided by the average of equity attributable to equity holders of Aliaxis at the beginning and end of the reporting period).

The Board of Directors also monitors the level of dividends to ordinary Shareholders. The Group's present intention is to recommend to the Shareholders' Meeting a dividend increasing in line with past practice and subject to annual review in light of the future profitability of the Group.

No assurance can however be given that the Company will pay dividends in the future. Such payments will depend upon a number of factors, including prospects, strategies, results of operations, earnings, capital requirements and surplus, general financial conditions, contractual restrictions and other factors considered relevant by the Board. Pursuant to the Belgian Company Code, the calculation of amounts available for distribution to Shareholders, as dividends or otherwise must be determined on the basis of the Company's non-consolidated Belgian GAAP financial statements by which the Company is required to allocate each year at least 5% of its annual net profits to its legal reserve, until the legal reserve equals at least 10% of the Company's share capital. As a consequence of these factors, there can be no assurance as to whether dividends or similar payments will be paid out in the future or, if they are paid, what their amount will be.

The Board seeks to maintain a balance between the higher returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position. In 2019, the Group share of return on equity was 13.8% (2018: 9.8%). In comparison the weighted average interest rate on the net financial interest-bearing indebtedness (including leases) was 2.3% (2018: 3.6%).

There were no changes in the Group's approach to capital management during the year, which will remain prudent given the current economic circumstances.

Neither the Company nor any of its subsidiaries are subject to externally imposed capital requirements.

6. Acquisitions and disposals of subsidiaries and non-controlling interests

In August 2019, the Group announced an agreement to acquire Silver-Line Plastics in the US.

Silver-Line Plastics is a US owned and operated company that manufactures quality plastic pipe with a comprehensive product offering, featuring PVC, CPVC, PE. and PEX.

Silver-Line Plastics generates around USD 150 million USD in annual sales.

The deal was completed in October 2019. As of October 31, 2019, the accounts of Silver-Line are fully integrated in the consolidated financial statements of the Group.

The values of assets and liabilities recognised on acquisition are their estimated fair values (See Note 4 for methods used in determining fair values).

Goodwill is attributable to the profitability and the growth potential of the acquired business.

The Group incurred acquisition related costs of € 4.5 million (See Note 11).

		Silver-Line		
(in € thousand)	**Notes**	**Pre-acquisition carrying amounts**	**Fair Value adjustments**	**Recognised values on acquisition**
Intangible assets	16	-	19,984	19,984
Property, plant and equipment	17	24,265	25,857	50,122
Inventories		19,466	891	20,357
Amounts receivable		21,328	-	21,328
Provisions		(4,530)	-	(4,530)
Amounts payable		(8,886)	287	(8,599)
Net identifiable assets and liabilities		**51,643**	**47,019**	**98,622**
Consideration paid, satisfied in cash				**133,685**
Goodwill on acquisition	16			**35,023**

On 2 May 2019 the Group completed the divestment of Rheinhütte Pumpen. The total consideration amounts to € 80.9 million and results in a net gain of disposal of € 38.6 million (See Note 8).

On 2 September 2019 the Group sold its Ceramics Business in Germany, for a total consideration of € 107.3 million, resulting in a net gain on disposal of € 74.9 million (See Note 8).

7. Other operating income and expenses

(in € thousand)	**2019**	**2018**
Government grants	**775**	1,005
Rental income from investment properties	**1,136**	1,112
Operating costs of investment properties	**(214)**	(188)
Gain/(loss) on the sale of fixed assets	**553**	203
M&A related intangibles amortisation	**(10,109)**	(10,137)
Taxes to be considered as operating expenses	**(8,828)**	(7,855)
Other rental income	**536**	1,230
Insurance recovery	**406**	211
Other	**521**	2,187
Other operating income / (expenses)	**(15,225)**	(12,231)

8. Net result on sale of businesses

The net result on sale of businesses relates to the divestment of Rheinhütte Pumpen for an amount € 38.6 million and the sale of the Ceramics Business of € 74.9 million (See Note 6).

9. Restructuring costs

The restructuring expenses for the year ended 31 December 2019 amounted to € 30.0 million. These expenses related mainly to transformation and restructuring initiatives. The Group decided in November to exit our operations in Mexico after thorough analysis and due to complex market conditions. The restructuring costs in Mexico in 2019 related to € 14.9 million. The unwind of operations in Mexico will be completed during 2020. The EMEA transformation initiatives amounted to € 8.7 million.

10. Impairment of non-financial assets

The impairment of non-financial assets mainly related to the impairment of Goodwill of the Vinidex business in Australasia for an amount of € 39.0 million (See Note 16).

In 2019, an impairment on property, plant and equipment has been recognised for € 8.6 million and mainly related to a valuation of the Land & Building in Malaysia.

11. Other income and expenses

Total other income and expense amounted to € 12.5 million and related mainly to merger and acquisition costs for an amount of € 6.4 million and costs related to feasibility study for global ERP for an amount of € 3.0 million.

12. Additional information on operating expenses

The following personnel expenses are included in the operating result:

(in € thousand)	Notes	2019	2018
Wages & salaries		**582,360**	571,368
Social security contributions		**80,506**	81,016
Net change in restructuring provisions		**1,287**	2,477
Expenses related to defined benefit plans	26b	**6,299**	5,940
Expenses related to defined contribution plans	26a	**17,708**	15,712
Other personnel expenses		**30,432**	30,200
Personnel expenses		**718,592**	706,712

The total average number of personnel was as follows:

(in units)	2019	2018
Production	**10,548**	11,136
Sales and marketing	**3,136**	3,110
R&D and administration	**1,827**	1,842
Total workforce	**15,511**	16,088

Personnel expenses, depreciation, amortisation and impairment charges are included in the following line items of the consolidated statement of profit and loss:

(in € thousand)	Personnel expenses	Depreciation and impairment of property, plant & equipment, investment property and assets held for sale	Amortisation and impairment of intangible assets	Total depreciation, amortisation and impairment
Cost of sales	377,376	98,814	400	99,213
Commercial expenses	177,605	10,097	298	10,395
Administrative expenses	141,848	12,917	4,380	17,297
R&D expenses	15,061	1,170	214	1,384
Other operating (income) / expenses	846	1,622	10,137	11,759
Adjusted items	5,856	11,652	38,985	50,637
Total	718,592	136,272	54,413	190,685

13. Finance expenses

(in € thousand)	2019	2018
Interest expense on financial borrowings	**(21,154)**	(25,514)
Interest expense on leases	**(3,894)**	-
Amortisation of deferred arrangement fees	**(1,270)**	(1,053)
Interest expense on other liabilities	**(23)**	(7)
Net change in the fair value of hedging derivatives - ineffective portion	**(1,056)**	-
Net foreign exchange loss	**(3,495)**	(13,022)
Bank fees	**(5,379)**	(5,159)
Other	**(2,857)**	(4,099)
Finance expenses	**(39,127)**	(48,854)

14. Finance income

(in € thousand)	2019	2018
Interest income from cash & cash equivalents	**5,971**	3,868
Interest income on other assets	**1,306**	732
Dividend income	**322**	204
Net change in the fair value of hedging derivatives - ineffective portion	**-**	419
Other	**1,496**	858
Finance income	**9,095**	6,081

15. Income taxes

Income taxes recognised in the profit or loss can be detailed as follows:

(in € thousand)	2019	2018
Current taxes for the period	**(108,226)**	(82,733)
Adjustments to current taxes in respect of prior periods	**(13,293)**	(8,351)
Total current tax expense	**(121,519)**	(91,084)
Origination and reversal of temporary differences	**-**	5,298
Impact of change in enacted tax rates	**3,141**	(207)
Adjustment of deferred taxes in respect of prior periods	**9,594**	(1,307)
Recognition of deferred tax assets on tax losses not previously recognised	**(468)**	-
Total deferred tax income / (expense)	**12,267**	3,783
Income tax expense in profit & loss	**(109,253)**	(87,301)

The income tax recognised in other comprehensive income is not material.

The reconciliation of the effective tax rate with the aggregated weighted nominal tax rate can be summarised as follows:

(in € thousand)	2019		2018	
Profit before income taxes	**293,559**		230,432	
Tax at aggregated weighted nominal tax rate	**(83,213)**	**28.3%**	(57,305)	24.9%
Tax effect of:				
Non-deductible expenses	**(5,197)**	**1.8%**	(3,563)	1.5%
Non-deductible interest expenses	**(2,110)**	**0.7%**	(3,911)	1.7%
Tax credits and tax deductions	**800**	**(0.3%)**	5,150	(2.2%)
Current year losses for which no deferred tax asset is recognised	**(11,574)**	**3.9%**	(13,436)	5.8%
Change in enacted tax rates	**9,594**	**(3.3%)**	(207)	0.1%
Taxes on distributed and undistributed earnings	**(825)**	**0.3%**	(1,181)	0.5%
Withholding taxes on interest and royalty income	**(4,969)**	**1.7%**	(2,530)	1.1%
Other taxes on income	**(892)**	**0.3%**	(1,094)	0.5%
Utilisation of tax losses not previously recognised	**1,613**	**(0.5%)**	1,520	(0.7%)
Current tax adjustments in respect of prior periods	**(13,293)**	**4.5%**	(8,351)	3.6%
Deferred tax adjustments in respect of prior periods	**(468)**	**0.2%**	(1,307)	0.6%
Other	**1,282**	**(0.4%)**	(1,085)	0.5%
Income tax expense in profit & loss	**(109,253)**	**37.2%**	(87,301)	37.9%

Income taxes, consisting of current and deferred taxes, amounted to € 109 million (2018: € 87 million), representing an effective income tax rate of 37.2% (2018: 37.9%).

16. Intangible assets and goodwill

			2019	2018
(in € thousand)	Goodwill	Intangible assets (finite life)	Total Intangible assets	Total Intangible assets
Cost				
As at 1 January	**680,855**	**314,330**	**995,185**	1,019,421
Changes in the consolidation scope & Asset deals	**22,811**	**17,942**	**40,753**	80
- Acquisitions	***35,023***	***19,984***	***55,007***	*80*
- Deconsolidation	***(12,211)***	***(2,042)***	***(14,253)***	-
Acquisitions	**-**	**11,681**	**11,681**	3,773
Disposals & retirements	**(79,069)**	**(422)**	**(79,491)**	(793)
Transfers	**-**	**5,925**	**5,925**	(2,044)
Exchange difference	**21,996**	**(69)**	**21,927**	(25,252)
As at 31 December	**646,593**	**349,387**	**995,981**	995,185
Amortisation and impairment losses				
As at 1 January	**(75,485)**	**(126,954)**	**(202,439)**	(191,552)
Changes in the consolidation scope	**-**	**1,429**	**1,429**	-
- Deconsolidation	**-**	***1,429***	***1,429***	-
Charge for the period	**(38,985)**	**(15,428)**	**(54,413)**	(17,541)
- Amortisation	**-**	***(15,428)***	***(15,428)***	*(15,003)*
- Impairment (recognised) / reversed	***(38,985)***	**-**	***(38,985)***	*(2,538)*
Disposals & retirements	**79,069**	**399**	**79,468**	543
Transfers	**-**	**(1,542)**	**(1,542)**	2,081
Exchange difference	**(3,264)**	**(546)**	**(3,810)**	4,029
As at 31 December	**(38,666)**	**(142,641)**	**(181,307)**	(202,439)
Carrying amount at the end of the period	**607,927**	**206,746**	**814,673**	792,746
Carrying amount at the end of the previous period	**605,370**	**187,376**	**792,746**	827,868

The changes in the consolidation scope & Asset deals relate to the acquisition of Silver-Line Plastics and the deconsolidation relates to the divestment of Rheinhütte Pumpen and Ceramic Business.

The carrying amounts of goodwill allocated to each CGU at 31 December is as follows:

(in € thousand)		2019	2018
CGU	Country		
Aliaxis North America and subsidiaries	Canada and USA	**291,062**	240,848
FIP	Italy	**61,887**	61,887
Durman Esquivel and subsidiaries	Central America	**39,305**	37,729
Ashirvad	India	**38,005**	38,223
New Zealand and subsidiaries	New Zealand	**37,050**	36,175
Nicoll	France	**32,701**	32,701
Friatec Technical Plastics	Germany	**31,712**	31,712
Vinidex and Philmac	Australia	**26,616**	64,959
Marley Deutschland Gmbh	Germany	**19,402**	19,402
Nicoll Perù SA	Peru	**9,315**	8,971
Other*	Other	**20,871**	32,763
Goodwill		**607,927**	605,370

For the purpose of impairment testing, goodwill is allocated to the Group's cash-generating units which represent the lowest level within the Group at which the goodwill is monitored for internal management purposes.

The recoverable amounts of the CGUs are, through calculation methods consistent with past practice, determined from value-in-use calculations. These value-in-use calculations use 5-year free cash flow projections, starting from 2020 budget information and extrapolated for the four years thereafter.

Assumptions were made for each CGU taking into account past performance and management expectation of market developments, generally implying with operating performance stable vs. the 2020 budget and growth not exceeding 2% per year (for most industrialised countries) and 3% to 4% for Latin American countries. Deviations from such general assumptions were made for certain CGUs to deal with specific circumstances applying to such units. Due to the specific situation of the CGUs in Australia and India, the projections were not based on the above-mentioned general assumptions but were individualised and based on the local market prospects of each CGU. Implied annualised growth rates (CAGR) for these CGUs were respectively 3.5% (Australia) and 10% (India).

The terminal value is based on the normalised cash flows at the end of the last projected period for each business and a sustainable nominal growth rate (including the expected inflation rate) of on average 2% for most industrialised countries (Europe, Canada, USA), 3% for Australia/New Zealand and 3.5% for Latin American (Chile, Peru and Central America) and Asian (India) countries to reflect the higher growth prospects for the latter.

The cash flows are discounted at the average weighted cost of capital. Depending on the countries involved, the pre-tax weighted average cost of capital ranged between 8.5% and 15%, in line with previous years. The cost of equity component for developed economies is based on a risk-free rate and an equity risk premium. For emerging economies, a country risk premium is added. The cost of debt component for both types of economies reflects the estimated long-term cost of funding in the corresponding economies.

The results of the impairment test are sensitive to the assumptions used. An increase of 1% in the weighted average cost of capital would not result in a significant impairment loss.

During 2019, an impairment on goodwill of €39.0 million has been recognised in relation to the Vinidex business as a result of revised cashflow projections due to changed local market conditions.

* Carrying amount of goodwill for various CGUs of which none is individually significant.

17. Property, plant and equipment

(in € thousand)	Land & buildings	Plant, machinery & equipment	Other	Under construction & advance payments	2019 Total	2018 Total
Cost or deemed cost						
As at 1 January	**617,593**	**1,400,801**	**108,543**	**67,524**	**2,194,462**	2,226,619
Change in accounting policy	**79,034**	**18,364**	**15,595**	**-**	**112,992**	-
Changes in the consolidation scope & Asset deals	**(21,064)**	**(21,853)**	**(3,881)**	**(680)**	**(47,478)**	-
- Acquisitions	**27,214**	**21,924**	**985**	**-**	**50,122**	-
- Deconsolidation	**(48,277)**	**(43,777)**	**(4,865)**	**(680)**	**(97,600)**	-
Acquisitions	**35,792**	**49,189**	**16,135**	**38,818**	**139,933**	82,834
Disposals & retirements	**(3,652)**	**(36,610)**	**(5,976)**	**(116)**	**(46,354)**	(33,130)
Transfers	**11,415**	**30,993**	**809**	**(18,883)**	**24,333**	(47,105)
Exchange difference	**11,937**	**32,534**	**2,224**	**1,800**	**48,494**	(34,757)
As at 31 December	**731,055**	**1,473,417**	**133,448**	**88,462**	**2,426,382**	2,194,462
Depreciation and impairment losses						
As at 1 January	**(238,752)**	**(1,062,531)**	**(86,934)**	**(157)**	**(1,388,375)**	(1,370,388)
Changes in the consolidation scope	**24,118**	**34,327**	**3,659**	**-**	**62,104**	-
- Deconsolidation	***24,118***	***34,327***	***3,659***	**-**	***62,104***	-
Charge for the period	**(42,563)**	**(77,900)**	**(14,789)**	**-**	**(135,252)**	(92,440)
- Depreciation	***(36,122)***	***(73,444)***	***(14,663)***	**-**	***(124,229)***	*(91,609)*
- Impairment (recognised) / reversed	***(6,441)***	***(4,456)***	***(126)***	**-**	***(11,023)***	*(831)*
Disposals & retirements	**3,081**	**35,430**	**5,501**	**-**	**44,012**	28,616
Transfers	**101**	**(13,416)**	**(1,459)**	**160**	**(14,614)**	27,915
Exchange difference	**(4,470)**	**(24,504)**	**(1,802)**	**(2)**	**(30,779)**	17,922
As at 31 December	**(258,485)**	**(1,108,594)**	**(95,825)**	**0**	**(1,462,903)**	(1,388,375)
Carrying amount at the end of the period	**472,570**	**364,823**	**37,624**	**88,463**	**963,479**	806,087
Carrying amount at the end of the previous period	**378,841**	**338,271**	**21,609**	**67,367**	**806,087**	856,231
Of which:						
Leased assets at the end of the period	**83,133**	**14,236**	**18,366**	**(0)**	**115,736**	2,774
Leased assets at the end of the previous period	**1,853**	**243**	**673**	**5**	**2,774**	3,258

Management considers that residual values of depreciable property, plant and equipment are insignificant.

The total acquisition of property, plant and equipment excluding leasing amounts to € 105.1 million.

As from 1 January 2019 IFRS 16 has been applied to lease contracts (See Note 32). The ROU asset for the contracts that already existed at this date are presented in the line "change in accounting policy".

ROU assets in 2018 principally consist of only finance leases. With the adoption of IFRS 16 during 2019, the increase can be explained by the recognition at date of initial application of € 113.0 million and new ROU assets during the year (included in the line "acquisitions") for a total amount of € 34.9 million (2018: € 0.1 million).

The disposal and retirement flows include the reversals of the fully depreciated property, plant and equipment both at the level of the gross book values and of the impairment values.

The changes in the consolidation scope & Asset deals relate to the acquisition of Silver-Line Plastics and the deconsolidation relates to the divestment of Rheinhütte Pumpen and Ceramic Business.

18. Investment properties

(in € thousand)	2019	2018
Cost		
As at 1 January	**9,414**	12,570
Transfers	**-**	(3,250)
Exchange difference	**440**	94
As at 31 December	**9,854**	9,414
Depreciation and impairment losses		
As at 1 January	**(5,971)**	(6,904)
Charge for the period	**(112)**	(125)
- Depreciation	***(112)***	*(125)*
Transfers	**-**	1,119
Exchange difference	**(280)**	(60)
As at 31 December	**(6,363)**	(5,971)
Carrying amount as at 31 December	**3,491**	3,443

Investment property comprises 2 commercial properties which are leased (in whole or in part) to third parties. The fair value, based on external valuation report, of those investment properties is categorised as level 3 and is estimated at € 7.7 million (2018: € 6.6 million).

19. Assets-held-for-sale

In 2018, the assets and liabilities of Rheinhütte Pumpen were considered and classified as Asset and Liabilities Held for Sale. This business has been sold by the Group in 2019. The remaining assets comprises of multiple small assets.

The conditions to classify the divestment of Harrington Industrial Plastics (See Note 38) as Asset and Liabilities Held for Sale were not met at 31 December 2019.

20. Inventories

As at 31 December (in € thousand)	2019	2018
Stock in transit	**18,525**	24,312
Raw materials, packaging materials and consumables	**107,555**	100,077
Components	**25,861**	25,875
Work in progress	**13,467**	13,353
Finished goods	**339,126**	315,325
Goods purchased for resale	**76,617**	67,822
Inventories, net of write-down	**581,151**	546,763

The total write-down of inventories amounts to € 24.8 million at 31 December 2019 (2018: € 28.8 million).

The cost of write-downs recognised in profit or loss (Cost of sales) during the period amounted to € 3.2 million (2018: € 4.3 million).

21. Amounts receivable

As at 31 December (in € thousand)	Notes	2019	2018
Trade receivables - gross	31	**336,171**	343,810
Impairment losses	31	**(16,855)**	(16,163)
Trade receivables		**319,316**	327,646
Taxes (other than income tax) receivable		**28,353**	26,091
Other		**36,737**	27,774
Other amount receivable		**65,090**	53,865
Amounts receivable		**384,406**	381,512

Information about the Group exposure to credit market risk and impairment losses on amounts receivable is included in Note 31.

22. Cash and cash equivalents

As at 31 December (in € thousand)	2019	2018
Short term bank deposits	**357,933**	256,575
Bank balances	**127,551**	129,483
Cash	**658**	399
Cash & cash equivalents	**486,143**	386,458
Bank overdrafts	**(12,749)**	(12,836)
Cash & cash equivalents in the statement of cash flows	**473,394**	373,622

Short-term deposits are held with counterparties which have a robust credit rating, with maturities of 3 months or less, and remunerated at money market rates floored at 0%.

Most significant amounts are denominated in CAD, USD and EUR.

23. Equity

Share capital and share premium

The share capital and share premium of the Company as of 31 December 2019 amount to € 76.0 million (2018: € 76.0 million), represented by 91,135,065 fully paid ordinary shares without par value (2018: 91,135,065).

The holders of ordinary shares are entitled to receive dividends as declared and have one vote per share at Shareholders' Meetings of the Company.

Hedging reserve

Hedging reserves as presented in the consolidated statement of changes in equity include as well the Cash flow hedging reserves as the Cost of hedging reserve. Note 31 provides further details regarding this breakdown and the related restatement of last year.

The Cash flow hedging reserve comprises the effective portion of the accumulated net change in the fair value of cash flow hedge instruments for a total negative amount of € 4.1 million (2018: € 9.3 million). At the end of 2019, the Cost of hedging reserves amounts to € -0.3 million. Net of tax, the hedging reserves amount to a total negative amount of € 2.5 million.

Reserve for own shares

At 31 December 2019, the Group held 12,846,210 of the Company's shares (2018: 12,395,164). Senior managers have the opportunity to build an equity interest in one of the subsidiaries (Aliaxis Management Company which owns 2.000.000 Aliaxis shares) in accordance with long term incentive plans. Currently, management's equity interests represent 1.19% of Aliaxis Management Company.

During 2019, Group personnel exercised 7,500 share options related to the 2012 Share Options Plan and 22,500 share options related to the 2013 Share Options Plan granted by the Group (see Note 26c).

Translation reserve

The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign entities of the Group as well as from the translation of liabilities that hedge the Company's net investment in a foreign operation and the translation impacts resulting from net investment hedges. The positive change in the translation reserve during 2019 amounts to € 62.6 million, mainly due to the strengthening of some major trading currencies against the EUR at year end rate, such as the Canadian dollar (7%), Pound Sterling (5%) and the United States dollar (2%).

In 2018, the negative change in the translation reserve amounted to € -26.1 million, due to the weakening of some major trading currencies against the EUR at year end rate, such as the Canadian dollar (4%) and the Australian dollar (6%), partly offset by the strengthening of the United States dollar (4.5%).

Dividends

In 2019, an amount of € 53.5 million was declared and paid as dividends by Aliaxis (a gross dividend of € 0.5869 per share). Excluding the portion attributable to treasury shares, the amount was € 46.1 million.

An amount of € 26.7 million (a gross dividend of € 0.2935 per share) is proposed by the directors to be declared and paid as dividend for the current year. Excluding the portion attributable to treasury shares, the amount is € 23.1 million. This dividend has not been provided for.

Non-controlling interests

The Non-controlling interests amount of € 7.2 million, decreased by € 0.1 million compared to last year.

24. Earnings per share

Basic earnings per share

The calculation of basic earnings per share is based on the profit attributable to equity holders of Aliaxis of € 183.0 million (2018: € 137.1 million) and the weighted average number of ordinary shares outstanding during the year net of treasury shares, calculated as follows:

Weighted average number of ordinary shares, net of treasury shares

(in thousand of shares)	2019	2018
Issued ordinary shares	**91,135**	91,135
Treasury shares	**(12,395)**	(12,410)
Issued ordinary shares at 1 January, net of treasury shares	**78,740**	78,725
Effect of treasury shares sold / (acquired) during the period	**(256)**	7
Weighted average number of ordinary shares at 31 December, net of treasury shares	**78,484**	78,733

Diluted earnings per share

The calculation of diluted earnings per share is based on the profit attributable to equity holders of Aliaxis of € 183.0 million (2018: € 137.1 million) and the weighted average number of ordinary shares outstanding during the year net of treasury shares and after adjustment for the effects of all dilutive potential ordinary shares, calculated as follows:

Weighted average number of ordinary shares (diluted), net of treasury shares

(in thousand of shares)	2019	2018
Weighted average number of ordinary shares, net of treasury shares (basic)	**78,484**	78,733
Effect of share options	**-**	20
Weighted average number of ordinary shares at 31 December (diluted), net of treasury shares	**78,484**	78,752

25. Loans and borrowings

As at 31 December (in € thousand)	2019	2018*
Non-current		
Secured bank loans	**-**	2,386
Unsecured bank loans, Schuldschein & other	**735,658**	831,795
US private placements	**247,711**	243,378
Deferred arrangement fees	**(679)**	(1,719)
Non-current loans and borrowings	**982,690**	1,075,840
Current		
Secured bank loans	**-**	23,335
Unsecured bank loans, Schuldschein & other	**144,130**	46,924
US private placements	**-**	-
Deferred arrangement fees	**(1,044)**	(1,266)
Other (loans) and borrowings	**176**	172
Current loans and borrowings	**143,261**	69,165
Loans and borrowings	**1,125,951**	1,145,005

The breakdown of the changes of loans and borrowings into cash flows and non-cash changes can be detailed as follows:

		Cash Flows		Non-cash changes			
As at 31 December (in € thousand)	2018*	In	Out	Transfer	FX impact	Amortisation	2019
Non-current							
Secured bank loans	2,386	-	(2,651)	-	265	-	**0**
Unsecured bank loans, Schuldschein & other	831,795	20,026	(7,134)	(111,803)	2,774	-	**735,658**
US private placements	243,378	-	-	-	4,332	-	**247,711**
Deferred arrangement fees	(1,719)	-	-	762	(1)	280	**(679)**
Non-current financial debt	**1,075,840**	**20,026**	**(9,785)**	**(111,041)**	**7,370**	**280**	**982,690**
Current							
Secured bank loans	23,335	-	(23,349)	-	14	-	**(0)**
Unsecured bank loans, Schuldschein & other	46,924	13,547	(29,606)	111,803	605	856	**144,130**
US private placements	-	-	-	-	-	-	**-**
Deferred arrangement fees	(1,266)	-	-	(762)	(6)	990	**(1,044)**
Other loans and borrowings	172	3	-	-	-	-	**176**
Current loans and borrowings	**69,165**	**13,551**	**(52,955)**	**111,041**	**613**	**1,846**	**143,261**
Loans and borrowings	**1,145,005**	**33,577**	**(62,741)**	**-**	**7,983**	**2,126**	**1,125,951**

* The Group initially applied IFRS 16 at 1 January 2019, using the modified retrospective approach. Under this approach, comparative information is not restated and the lease liabilities of initially applying IFRS 16 are presented on a separate line in the consolidated statement of financial position.

In July 2011, the Group entered into the US Private Placement (USPP) market by issuing notes for a total amount of USD 260 million in 3 tranches, of which are still outstanding:

- USD 111 million at 4.94% maturing in 2021
- USD 112 million at 5.09% maturing in 2023

In July 2015, the Group entered into the USPP market by issuing notes for approximately USD 55 million in 2 tranches:

- USD 35 million at 4.26% maturing in 2025
- EUR 18 million at 2.64% maturing in 2027

Subsequently, the Group entered for USD 258 million into cross currency swaps in order to maintain a diversified source of funding in terms of maturities, currencies and interest rates.

In July 2015 also, the Group entered into the Schuldschein (SSD) market by issuing certificates for a total amount of EUR 120 million in 4 tranches:

- EUR 25 million at 1.558% maturing in 2020
- EUR 28 million at floating rate maturing in 2020
- EUR 40 million at 2.13% maturing in 2022
- EUR 27 million at floating rate maturing in 2022

Simultaneously, the Group refinanced its syndicated bank debt by entering into a 5 year (with two possible one-year extensions) committed multi-currency revolving credit facility of € 680 million between Aliaxis Finance/ Aliaxis North America/Aliaxis Holding Australia and a syndicate of banks. The borrowing rate is based on a short-term interest rate plus margin. The management of interest rate risk is described in Note 31.

In June 2016, the syndicated loan maturity was extended by one year for the total amount of € 680 million with maturity fixed at July 2021.

In June 2017, the syndicated loan maturity was extended by an additional one year for the amount of € 631 million, with final maturity now fixed at July 2022.

In May 2018, the Group entered into a Club Deal multi-currency bank facility of EUR 400 Million maturing in July 2022 made up of a EUR 200 million amortising Term Loan Tranche (EUR 50 million repayment in July 2020 and EUR 50 million repayment in July 2021), and a EUR 200 million bullet Revolving Tranche. In both tranches, the borrowing rate is based on a short-term interest rate plus margin. The management of interest rate risk is described in Note 31.

At 31 December 2019, € 318 million of the syndicated facility was drawn (2018: € 303 million).

These USPP and SSD programs together with the Syndicated loan and the Club deal bank facility are unsecured, subject to covenants (including, inter alia, financial covenants based on interest cover and leverage ratios) and undertakings standard for this type of financing, and were not subject to any breach of covenants as at 31 December 2019.

Other facilities of Aliaxis Finance S.A. and other subsidiaries of the Group include a number of additional bilateral and multilateral credit facilities.

The terms and conditions of significant loans and borrowings were as follows:

				2019		2018	
As at 31 December (in € thousand)	**Curr.**	**Nominal interest rate**	**Year of maturity**	**Face value**	**Carrying amount**	**Face value**	**Carrying amount**
Secured bank loans							
	EUR	Euribor + margins				1,100	1,100
	USD	8.40%				5,314	5,314
	INR	8.00% - 9.20%				19,307	19,307
Unsecured syndication bank facility							
	CAD	Cdor + 0.65%	2022	**6,850**	**6,850**	6,408	6,408
	EUR	Euribor + 0.65%	2022	**150,000**	**150,000**	130,000	130,000
	USD	Libor + 0.65%	2022	**26,705**	**26,705**	32,314	32,314
	AUD	Interbank + 0.65%	2022	**134,417**	**134,417**	133,785	133,785
Unsecured "Club deal" bank facility							
	EUR	Euribor + 0.80%	2022	**200,000**	**200,000**	200,000	200,000
	EUR	Euribor + 0.60%	2022	**200,000**	**200,000**	200,000	200,000
Other unsecured bank facility							
	HNL					232	232
	CZK	2.00%	2020	**345**	**345**	297	297
	COP	7.43%-7.49%	2020	**1,840**	**1,840**	3,370	3,370
	CLP	3.7%-6.58%	2020-2021	**4,404**	**4,404**	5,461	5,461
	MXN	9.80%	2020	**2,264**	**2,264**	14,040	14,040
	PEN	2.76%-2.93%	2020	**2,603**	**2,603**	3,068	3,068
	USD	3.80%-5.10%	2020	**2,727**	**2,727**	1,528	1,528
	MYR	4.50%	2020	**8,301**	**8,301**	8,378	8,378
	EUR	Euribor + margins	2020	**19,416**	**19,416**	20,600	20,600
Schuldschein							
	EUR	Euribor + 1.10%	2020	**28,000**	**28,000**	28,000	28,000
	EUR	1.558%	2020	**25,000**	**25,000**	25,000	25,000
	EUR	Euribor + 1.40%	2022	**27,000**	**27,000**	27,000	27,000
	EUR	2.13%	2022	**40,000**	**40,000**	40,000	40,000
US private placements							
	USD	4.94%	2021	**98,807**	**98,807**	96,943	96,943
	USD	5.09%	2023	**99,697**	**99,697**	97,817	97,817
	USD	4.26%	2025	**31,155**	**31,155**	30,568	30,568
	EUR	2.64%	2027	**18,051**	**18,051**	18,051	18,051
Others*				**(1,631)**	**(1,631)**	(3,576)	(3,576)
Total loans and borrowings				**1,125,951**	**1,125,951**	1,145,005	1,145,005

The debt repayment schedule is as follows:

(in € thousand)	**Total**	**1 year or less**	**1-2 years**	**2-5 years**	**>5 years**
Unsecured bank loans, Schuldschein & other	**879,788**	144,130	50,686	684,972	-
US private placements	**247,711**	-	98,807	99,697	49,206
Deferred arrangement fees	**(1,723)**	(1,044)	(361)	(318)	-
Other loans and borrowings	**176**	176	0	-	-
Total as at 31 December	**1,125,951**	143,261	149,132	784,352	49,206

*Other interest-bearing loans and borrowings include loans and deferred arrangement fees in many different currencies at both fixed and floating rates. The Group initially applied IFRS 16 at 1 January 2019, using the modified retrospective approach. Under this approach, comparative information is not restated and the lease liabilities of initially applying IFRS 16 are presented on a separate line in the consolidated statement of financial position.

26. Employee benefits

Aliaxis maintains benefit plans such as retirement and medical care plans, termination plans and other long-term benefit plans in several countries in which the Group operates. In addition, the Group also has share-based payment plans and a long-term incentive scheme.

The Group operates a number of defined benefit and defined contribution plans throughout the world, the assets of which are generally held in separate trustee-administered funds. The pension plans are generally funded by payments from employees and the company. Aliaxis maintains funded and unfunded pension plans.

(a) Defined contribution plans

For defined contribution plans, the Group companies pay contributions to pension funds or insurance companies.

Once the contributions have been paid, the Group companies have no further payment obligation. The regular contributions constitute an expense for the period in which they are due. In 2019, the defined contribution plan expenses for the Group amounted to € 17.7 million (2018: € 15.7 million).

(b) Defined benefit plans

Aliaxis reports on a total of 63 defined benefit plans over 2019, which provide the following benefits:

Retirement benefits:	44
Long service awards:	14
Termination benefits:	2
Medical benefits:	3

All the plans have been established in accordance with common practice and legal requirements in each relevant country.

The retirement defined benefit plans generally provide a benefit related to years of service and rates of pay close to retirement.

The retirement benefit plans in Australia, Belgium, India, Switzerland and the UK are separately funded through external insurance contracts or pension funds legally separate from the Group. There are both funded and unfunded plans in Canada, Germany and France.

The funding requirements are stipulated in the insurance contract or, in the case of pension funds, based on the pension fund's actuarial measurement framework set out in the funding policies of the plan, and comply with the local minimum funding requirements. For two plans in Canada a recovery contribution plan is in place in order to attain the minimum funding requirements.

The retirement benefit plans in Italy, Austria and New Zealand are unfunded.

The termination benefit plans consist of early retirement plans in Germany.

The medical plans provide medical benefits after retirement to former employees in France, the US and the UK.

The long service awards are granted in Australia, Austria, Germany, India, New Zealand and France.

Belgian defined contribution plans require the employer to guarantee a minimum return on the contributions paid by both employer and employee. This exposes the company to an underfinancing risk, depending on the actual investment return on the assets and the evolution of legal minimum guarantee. These plans are fully treated as defined benefit plans for IFRS purposes.

These defined benefit plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk.

The Group has more than one defined benefit plan in place and has generally provided aggregated disclosures in respect of these plans, on the basis that these plans are not exposed to materially different risks.

The Group's net liability for retirement, medical, termination and other long-term benefit plans comprises the following at 31 December:

	2019			2018		
(in € thousand)	**Retirement and medical plans**	**Termination benefits & other long-term benefits**	**TOTAL**	**Retirement and medical plans**	**Termination benefits & other long-term benefits**	**TOTAL**
Defined benefit obligations for funded plans	**271,736**	**-**	**271,736**	259,849	-	259,849
Fair value of plan assets	**(305,749)**	**-**	**(305,749)**	(283,037)	-	(283,037)
Funded status for funded plans	**(34,012)**	**-**	**(34,012)**	(23,188)	-	(23,188)
Defined benefit obligations for unfunded plans	**54,252**	**9,226**	**63,478**	51,617	10,539	62,156
Total funded status at 31 December	**20,240**	**9,226**	**29,466**	28,428	10,539	38,967
Irrecoverable asset at end of year	**858**	**-**	**858**	1,324	-	1,324
Net liability as at 31 December	**21,098**	**9,226**	**30,324**	29,753	10,539	40,292
Liabilities	**69,816**	**9,226**	**79,042**	64,691	10,539	75,230
Assets	**(48,718)**	**-**	**(48,718)**	(34,938)	-	(34,938)
Net liability as at 31 December	**21,098**	**9,226**	**30,324**	29,753	10,539	40,292
Current liabilities	**8,795**	**809**	**9,604**	8,790	867	9,657
Non-current liabilities	**12,303**	**8,417**	**20,720**	20,963	9,672	30,635

The movements in the net liability for defined benefit obligations recognised in the statement of financial position at 31 December are as follows:

	2019			2018		
(in € thousand)	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL
As at 1 January	**29,753**	**10,539**	**40,292**	44,387	11,205	55,592
Employer contributions	**(7,055)**	**(1,425)**	**(8,480)**	(7,847)	(1,216)	(9,063)
Expense recognised in the income statement	**4,549**	**1,750**	**6,299**	5,054	886	5,940
Amount recognised in other comprehensive income	**(3,393)**	**-**	**(3,393)**	(11,719)	-	(11,719)
Scope change	**(1,543)**	**(1,734)**	**(3,277)**			
Exchange difference	**(1,212)**	**96**	**(1,116)**	(122)	(336)	(458)
As at 31 December	**21,098**	**9,226**	**30,324**	29,753	10,539	40,292

The changes in the present value of the defined benefit obligations are as follows:

	2019			2018		
(in € thousand)	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL
As at 1 January	**311,465**	**10,539**	**322,005**	350,066	11,205	361,271
Current service cost	**3,744**	**975**	**4,718**	3,827	1,037	4,864
Employee contributions	**474**	**-**	**474**	440	-	440
Interest cost	**7,759**	**85**	**7,843**	7,592	86	7,678
Actuarial (gains)/losses on liabilities arising from changes in financial assumptions	**28,787**	**211**	**28,998**	(16,792)	(77)	(16,869)
Actuarial (gains)/losses on liabilities arising from changes in demographic assumptions	**(10,582)**	**(19)**	**(10,601)**	(7,104)	133	(6,972)
Actuarial (gains)/losses on liabilities arising from experience	**(1,436)**	**524**	**(912)**	(790)	53	(737)
Settlement and past service cost (incl. curtailment)	**(439)**	**(25)**	**(464)**	(9)	(345)	(354)
Benefits paid	**(24,057)**	**(1,425)**	**(25,483)**	(23,476)	(1,216)	(24,692)
Scope change	**(2,283)**	**(1,734)**	**(4,017)**			
Exchange difference	**12,558**	**96**	**12,654**	(2,287)	(336)	(2,623)
As at 31 December	**325,988**	**9,226**	**335,214**	311,465	10,539	322,005

The changes in the fair value of plan assets are as follows:

	2019			2018		
(in € thousand)	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL
As at 1 January	**(283,037)**	**-**	**(283,037)**	(306,839)	-	(306,839)
Interest income	**(7,543)**	**-**	**(7,543)**	(7,127)	-	(7,127)
Employer contributions	**(7,055)**	**(1,425)**	**(8,480)**	(7,847)	(1,216)	(9,063)
Employee contributions	**(474)**	**-**	**(474)**	(440)	-	(440)
Benefits paid (direct & indirect, including taxes on contributions paid)	**24,057**	**1,425**	**25,483**	23,476	1,216	24,692
Return on assets, excl. interest income	**(19,582)**	**-**	**(19,582)**	12,793	-	12,793
Actual administration expenses	**982**	**-**	**982**	740	-	740
Scope change	**740**	**-**	**740**			
Exchange difference	**(13,837)**	**-**	**(13,837)**	2,206	-	2,206
As at 31 December	**(305,749)**	**-**	**(305,749)**	(283,037)	-	(283,037)

During 2019, the net defined benefit liability has decreased by € 10.0 million from € 40.3 million to € 30.3 million. This was primarily due to changes in assumptions. Mainly the decrease of discount rate from 2.4% to 1.7% let to the increase of defined benefit obligation by € 28.5 million, while the change in mortality assumptions in UK let to a decrease by € 10.6 million. This was offset by the increase observed from assets by € 19.6 million, mostly due to higher than expected investment return in UK pension schemes. The net liability also decreased because total contributions were higher than the expense. The total contributions amounted to € 9.0 million (2018: € 9.5 million) of which € 8.5 million was contributed by the employer (2018: € 9.1 million) and € 0.5 million was contributed by the employees (2018: € 0.4 million). Furthermore, a total of € 25.5 million benefits was paid out (2018: € 24.7 million).

As a result, the funded position, i.e. the ratio of assets to the defined benefit obligation, has increased from 88% to 91%.

The Group expects to contribute approximately € 6.0 million to its defined benefit plans in 2020.

	2019		
(in € thousand)	Retirement and medical plans	Termination benefits & other long-term benefits	TOTAL
Expected employer contributions	**5,178**	**809**	**5,987**
Expected employee contributions	**492**	**-**	**492**
Expected benefits paid (direct & indirect)	**8,795**	**809**	**9,604**

The expense (income) recognised in the statement of comprehensive income with regard to defined benefit plans can be detailed as follows:

	2019			2018		
(in € thousand)	**Retirement and medical plans**	**Termination benefits & other long-term benefits**	**TOTAL**	**Retirement and medical plans**	**Termination benefits & other long-term benefits**	**TOTAL**
Service cost:						
Current service cost	**3,744**	**975**	**4,718**	3,827	1,037	4,864
Past service cost (incl. curtailments)	**(439)**	**(25)**	**(464)**	1,757	-	1,757
Settlement cost	**-**	**-**	**-**	(1,766)	(345)	(2,111)
Administration expenses	**982**	**-**	**982**	740	-	740
Net interest cost:						
Interest cost	**7,759**	**85**	**7,843**	7,592	86	7,678
Interest income	**(7,543)**	**-**	**(7,543)**	(7,127)	-	(7,127)
Interest on asset ceiling	**47**	**-**	**47**	32	-	32
Remeasurements						
Actuarial (gains)/losses due to changes in financial assumptions	**-**	**211**	**211**	-	(77)	(77)
Actuarial (gains)/losses due to changes in demographic assumptions	**-**	**(19)**	**(19)**	-	133	133
Actuarial (gains)/losses due to experience	**-**	**524**	**524**	-	53	53
Pension expense recognised in profit and loss	**4,549**	**1,750**	**6,299**	5,054	886	5,940
Remeasurements in other comprehensive income						
Return on plan assets (in excess of)/below that recognised in net interest	**(19,582)**	**-**	**(19,582)**	12,793	-	12,793
Actuarial (gains)/losses due to changes in financial assumptions	**28,787**	**-**	**28,787**	(16,792)	-	(16,792)
Actuarial (gains)/losses due to changes in demographic assumptions	**(10,582)**	**-**	**(10,582)**	(7,104)	-	(7,104)
Actuarial (gains)/losses due to experience	**(1,436)**	**-**	**(1,436)**	(790)	-	(790)
Adjustments due to the limit in paragraph 64, excl. amounts recognised in net interest	**(579)**	**-**	**(579)**	174	-	174
Total amount recognised in other comprehensive income	**(3,393)**	**-**	**(3,393)**	(11,719)	-	(11,719)
Total amount recognised in profit and loss and other comprehensive income	**1,156**	**1,750**	**2,906**	(6,665)	886	(5,779)

The employee benefit expense is included in the following line items of the statement of comprehensive income:

(in € thousand)	**2019**	**2018**
Cost of sales	**2,194**	1,928
Commercial expenses	**630**	684
Administrative expenses	**3,518**	2,954
R&D expenses	**85**	90
Restructuring	**(144)**	265
Other operating income / (expenses)	**16**	19
Total at 31 December	**6,299**	5,940

The principal actuarial assumptions at the reporting date (expressed as weighted averages) can be summarised as follows:

	2019	**2018**
Discount rate as at 31 December	**1.71%**	2.43%
Rate of salary increases	**2.29%**	2.22%
Inflation	**2.52%**	2.82%
Initial medical trend rate	**3.25%**	4.97%
Ultimate medical trend rate	**2.88%**	4.26%
Pension increase rate	**2.41%**	2.64%

The discount rate and the salary increase rate have been weighted by the defined benefit obligation.

The medical trend rate has been weighted by the defined benefit obligation of those plans paying pensions rather than by lump sums on retirement.

At 31 December, the plan assets are broken down into the following categories according to the asset portfolios weighted by the amount of assets:

	2019	**2018**
Government bonds	**39.52%**	38.88%
Corporate bonds	**2.70%**	2.64%
Equity instruments	**5.58%**	5.64%
Insurance contracts	**33.98%**	36.53%
Property	**1.38%**	1.42%
Cash	**2.35%**	1.42%
Other	**14.50%**	13.48%
	100.00%	100.00%

The percentage in "Other" relates to UK assets that were invested for 18% in a diversified growth fund at 31 December 2019. The fund is mainly invested in diversifying strategies, equities, bonds and real estate.

The plan assets do not include investments in the Group's own shares or in property occupied by the Group.

The weighted average duration of the defined benefit obligation (this is the average term of the benefit payments weighted for their size) is 17.1 years.

At 31 December, the weighted average life expectancy is as follow:

	Man	**Woman**
Of a 65-year old	21.2	23.9
Of a 45-year old at the age of retirement	22.6	25.3

The total defined benefit obligation amounts to € 335.2 million and can be split as follows between active members, members with deferred benefit entitlements and pensioners:

	2019			2018		
(in € thousand)	**Retirement and medical plans**	**Termination benefits & other long-term benefits**	**TOTAL**	**Retirement and medical plans**	**Termination benefits & other long-term benefits**	**TOTAL**
Active members	70,702	9,226	**79,928**	66,567	10,539	77,106
Members with deferred benefit entitlements	115,499	-	**115,499**	117,100	-	117,100
Pensioners/Beneficiaries	139,294	-	**139,294**	127,461	-	127,461
Taxes relating to past service benefits	494	-	**494**	337	-	337
As at 31 December	**325,988**	**9,226**	**335,214**	311,465	10,539	322,005

A 0.25 percentage point change in the assumed discount rate and inflation rate would have the following effect on the defined benefit obligation:

(in € thousand)	**2019**	**2018**
Current defined benefit obligation at 31 December	**335,214**	322,005
% increase following a 0,25% decrease in the discount rate	**4.19%**	4.63%
% decrease following a 0,25% increase in the discount rate	**(3.96%)**	(4.32%)
% increase following a 0,25% increase in the inflation rate	**2.33%**	2.09%

The defined benefit obligation of post-employment medical plans amounts to € 2.8 million. A one percentage point increase or decrease in the assumed health-care trend (i.e. medical inflation) rate would have the following effect:

(in € thousand)	**2019**	**2018**
Current defined benefit obligation at 31 December for Post Retirement Medical Plans	2,793	2,347
Effect on the aggregate of the service cost and the interest cost of a 1% increase	0	1
Effect on the defined benefit obligation of a 1% increase	9	19
Effect on the aggregate of the service cost and the interest cost of a 1% decrease	(0)	(0)
Effect on the defined benefit obligation of a 1% decrease	(8)	(18)

For plans where a full valuation has been performed, the sensitivity information shown above is exact and based on the results of this full valuation. For plans where results have been rolled forward from the last full actuarial valuation, the sensitivity information above is approximate and takes into account the duration of the liabilities and the overall profile of the plan membership.

(c) Share-based payments

On 23 June 2004, Aliaxis approved a share option program entitling key management personnel and senior employees to purchase shares of the Company and authorising the issuance of up to 3,250,000 options to be granted annually over a period of 5 years. Five Stock Option Plans were accordingly granted on 5 July 2004 (SOP 2004), 4 July 2005 (SOP 2005), 3 July 2006 (SOP 2006), 4 July 2007 (SOP 2007) and 8 July 2008 (SOP 2008) respectively.

One share option gives the beneficiary the right to buy one ordinary share of the Company. The vesting period is four years after the grant date, and the options can be exercised subsequently during a period of three years with one exercise period per year. Options are to be settled by the physical delivery of shares using the treasury shares held by Aliaxis (see Note 23).

Each beneficiary is also granted a put option, as long as the Group remains unlisted, whereby Aliaxis shares acquired under these plans can be sold back to the Group at a price to be determined at each put exercise period. The put exercise periods run in parallel with the exercise periods of each plan.

At each grant/exercise date, Aliaxis determines the fair value of the shares by applying market multiples derived from a representative sample of listed companies to its last annual financial performance.

On 23 April 2009, Aliaxis decided to propose to all share option holders under the Aliaxis share option plans 2005 to 2008, that the exercise period under these plans be extended for three years, as permitted by an amendment to the law of 26 March 1999.

The exercise period of the SOP 2005 to 2008 has consequently been extended by 3 years for the holders who agreed to the proposed extension.

On 24 June 2009, Aliaxis approved a new share option program on the same basis as the previous share option scheme but limited to Group Senior Executives. Options will be available for granting over a maximum of 5 years. Five Stock Option Plans were accordingly granted on 7 July 2009 (SOP 2009), 6 July 2010 (SOP 2010), 4 July 2011 (SOP 2011), 5 July 2012 (SOP 2012) and 8 July 2013 (SOP 2013).

In June 2019, Group personnel exercised 7,500 share options related to the 2012 Share Option Plan and 22,500 share options were exercised regarding the Share Option Plan 2013.

No new Stock Option Plan was granted during 2018.

The total value of the share options exercised in 2019 at exercise or call price amounts to € 0.7 million. Their value at put price amounts to € 0.9 million.

Details of these stock option plans are as follows:

			Number of share options				
	Date granted	Exercise price (in €)	Granted	Exercised	Forfeited	Outstanding	Exercise periods 1 June - 20 June
SOP 2004	05.07.2004	9.19	647,500	631,030	16,470	-	2008 - 2011
SOP 2005	04.07.2005	12.08	617,000	586,590	30,410	-	2009 - 2015
SOP 2006	03.07.2006	18.35	594,000	513,786	80,214	-	2010 - 2016
SOP 2007	04.07.2007	26.82	610,000	458,000	152,000	-	2011 - 2017
SOP 2008	08.07.2008	16.25	557,250	367,955	189,295	-	2012 - 2018
SOP 2009	07.07.2009	12.93	266,000	266,000	-	-	2013 - 2016*
SOP 2010	06.07.2010	14.74	253,000	253,000	-	-	2014 - 2017*
SOP 2011	04.07.2011	20.15	133,000	133,000	-	-	2015 - 2018*
SOP 2012	05.07.2012	14.50	138,000	138,000	-	-	2016 - 2019*
SOP 2013	08.07.2013	25.39	195,000	175,000	12,500	7,500	2017 - 2020*
			4,010,750	3,522,361	480,889	7,500	

The number and weighted average exercise price of share options are as follows:

	2019		2018	
	Number of share options	Weighted average exercise price per option (in €)	Number of share options	Weighted average exercise price per option (in €)
Outstanding as at 1 January	**37,500**	**26.84**	418,250	18.91
Movements of the period:				
Options exercised	**30,000**	**27.21**	358,250	18.31
Options forfeited	**-**	**-**	22,500	15.28
Outstanding as at 31 December	**7,500**	**25.39**	37,500	26.84
Exercisable as at 31 December	**7,500**	**25.39**	37,500	26.84

The fair value of the services received in return for share options granted is based on the fair value of share options granted, measured using the Black & Scholes valuation model, with the following assumptions:

Fair value and assumptions	SOP 2013	SOP 2012	SOP 2011	SOP 2010	SOP 2009	SOP 2008	SOP 2007	SOP 2006	SOP 2005
Fair value at grant date (in € per option)	4.21	2.08	4.05	2.59	2.41	4.02	7.13	4.39	2.39
Share price (in €)	25.39	14.5	20.15	14.74	12.93	16.25	26.82	18.35	12.08
Exercise price (in €)	25.39	14.5	20.15	14.74	12.93	16.25	26.82	18.35	12.08
Expected volatility (in %)	20.00	20.00	20.00	20.00	20.00	20.00	20.00	21.00	21.00
Expected option average life (in years)	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Expected dividends (in €)	0.25	0.23	0.20	0.18	0.17	0.16	0.14	0.12	0.11
Risk-free interest rate (in %)	1.19	1.13	2.86	2.12	2.82	4.89	4.84	4.08	2.76

The expected volatility percentage is based on the historical volatility which is observed for comparable companies in Belgium. Expected dividends take into account a 10% growth of the dividends paid during the year. The risk-free interest rate is based on the swap euro interest rate corresponding to the expected options' average life. The vesting expectations are based on historical data of key management personnel turnover.

*from 1 June - 30 June

(d) Long-term incentive scheme

In 2019, new awards of the Long-Term Incentive Plan (LTIP) were granted to certain senior managers. The pay-out under this plan is conditional upon realisation of a target value creation over a three-year period. These managers are provided with the opportunity to invest their cash pay-out into shares of a dedicated subsidiary, owning shares in Aliaxis SA.

In total, there were 92 active employees participating to the LTIP under the current plan. On the basis that targets are achieved, this would lead to payments at the end of the three-year cycle of € 7.3 million. The grant of this long-term incentive represents 38.70 % of the participants' 2019 fixed salaries.

The provisions for LTIP recorded in the statement of financial position as at 31 December 2019 amounts to € 14.0 million.

27. Deferred tax assets and liabilities

The change in deferred tax assets and liabilities is as follows:

	Assets		Liabilities		Net	
(in € thousand)	**2019**	2018	**2019**	2018	**2019**	2018
As at 1 January	**87,853**	91,692	**(126,382)**	(134,210)	**(38,529)**	(42,518)
Recognised in profit or loss	**7,918**	(1,498)	**4,349**	5,282	**12,267**	3,783
Recognised directly in OCI	**1,265**	(1,286)	**(1,591)**	(1,253)	**(326)**	(2,539)
Scope change	**(58)**	–	**6**	–	**(52)**	–
Other movements	**(4,607)**	(51)	**(0)**	0	**(4,607)**	(51)
Exchange difference	**1,032**	(1,004)	**(1,476)**	3,800	**(444)**	2,796
As at 31 December	**93,402**	87,853	**(125,094)**	(126,382)	**(31,691)**	(38,529)

Deferred tax assets and liabilities are attributable to the following items:

	Assets		Liabilities		Net	
As at 31 December (in € thousand)	**2019**	2018	**2019**	2018	**2019**	2018
Intangible assets	**3,863**	4,846	**(41,247)**	(52,562)	**(37,384)**	(47,716)
Property, plant and equipment	**4,007**	7,964	**(59,231)**	(53,660)	**(55,224)**	(45,696)
Inventories	**7,793**	6,870	**(3,923)**	(2,537)	**3,870**	4,333
Post employment benefits	**16,551**	15,320	**(8,084)**	(5,801)	**8,467**	9,519
Provisions	**10,371**	5,577	**(111)**	(92)	**10,260**	5,485
Financial debts	**5,826**	4	**(386)**	(690)	**5,440**	(685)
Undistributed earnings	**–**	–	**(734)**	(105)	**(734)**	(105)
Other assets and liabilities	**17,495**	17,254	**(11,377)**	(10,934)	**6,118**	6,320
Loss carry forwards	**27,494**	30,018	**–**	–	**27,494**	30,018
Tax assets / (liabilities)	**93,402**	87,853	**(125,094)**	(126,382)	**(31,691)**	(38,529)
Set-off of assets and liabilities	**(58,241)**	(47,614)	**58,241**	47,614	**–**	–
Net tax assets / (liabilities)	**35,162**	40,239	**(66,853)**	(78,768)	**(31,691)**	(38,529)

Tax losses carried forward on which no deferred tax asset is recognised amount to € 285 million (2018: € 236 million). € 184 million of these tax losses do not have any expiration date. € 101 million will expire at the latest by the end of 2049.

Deferred tax assets have not been recognised on these tax losses available for carry forward because it is not probable that future taxable profits will be available against which these tax losses can be used.

28. Provisions

	2019				2018
(in € thousand)	**Product liability**	**Restructuring**	**Other**	**TOTAL**	**TOTAL**
As at 1 January	**11,472**	**12,897**	**20,605**	**44,973**	40,677
Change in consolidation scope	**(641)**	**–**	**4,266**	**3,625**	–
Provisions created	**5,774**	**14,079**	**14,153**	**34,006**	26,189
Provisions used	**(4,176)**	**(10,912)**	**(5,698)**	**(20,786)**	(13,328)
Provisions reversed	**(1,702)**	**(639)**	**(1,198)**	**(3,539)**	(6,450)
Other movements	**369**	**0**	**933**	**1,301**	(513)
Exchange difference	**455**	**209**	**484**	**1,149**	(1,601)
As at 31 December	**11,552**	**15,632**	**33,545**	**60,729**	44,973
Non-current balance at the end of the period	**3,083**	**(0)**	**24,163**	**27,246**	15,428
Current balance at the end of the period	**8,469**	**15,632**	**9,382**	**33,483**	29,545

The product liability provision provides a warranty for the products that the company sells or for the services it delivers. The provision has been estimated based on historical product liability associated with similar products and services. The group expects to settle the majority of the liability over the next year.

Provisions included in restructuring mainly relate to programs that are planned and controlled by Management and that generate material changes either in the scope of the business or in the manner of conducting the business. The restructuring costs were expensed as incurred and included in other operating income and expenses and adjusted items.

Other provisions mainly include long term incentive schemes obligations. See also Note 26d.

29. Current tax liabilities

The current tax liabilities have increased significantly with regard to previous year due to the initial application of IFRIC 23 Uncertainty over Income Tax Treatments as from 1 January 2019 as disclosed in note 3. Significant Accounting Policies. Changes during 2019 in an amount of € 1.3 million are the result of remeasurement and roll-forward of existing tax risks. Due to the scale and global presence of Aliaxis, the Group is operating in many jurisdictions, the increased complexity of tax law, the continuous changes in tax law and of its interpretation with respect to matters such as transfer pricing and the involvement in long lasting tax audits in relation to prior years adds uncertainty over certain income tax treatments. Management performed a detailed assessment of uncertain tax positions without considering detection risk by tax authorities which resulted in the recognition of additional tax liabilities. The Group strictly follows up on the liabilities for uncertain tax positions which are recorded as current tax liabilities in an amount of € 53.1 million as at 31 December 2019 (2018: €10 million).

30. Amounts payable

(a) Non-current other amounts payable

As at 31 December (in € thousand)	2019	2018
Other	**19,053**	35,573
Other amounts payable	**19,053**	35,573

(b) Current amounts payable

Information about the Group exposure to currency and liquidity risk is included in Note 31.

As at 31 December (in € thousand)	2019	2018
Trade payables	**284,879**	284,112
Payroll and social security payable	**101,780**	100,349
Taxes (other than income tax) payables	**11,222**	9,837
Interest payable	**12,451**	10,929
Other payables	**32,175**	28,160
Amounts payable	**442,509**	433,387

The minority shareholders of Ashirvad Pipes Pvt. Ltd. exercised their put option in 2018 and the Group acquired in July a further 37% stake in Ashirvad Pipes Pvt Ltd in addition to its 60% stake. Aliaxis agreed to purchase the remaining 3% over a three-year period (settlement of 1/3rd every year) and recorded in this respect a payable of € 50 million reported as Other Payables in 2018. In 2019, 1% of the remaining 3% was paid and amounted to € 16.4 million.

31. Financial instruments

(a) Currency risk

Exposure

Currency risk arises from transactions and financial instruments that are denominated in a currency other than the functional currency in which they are measured.

The Group's most significant exposure to foreign currency risk arises from trade sales and purchases denominated in USD, and from the USD denominated Private Placement notes.

To mitigate the Group's exposure to foreign exchange currency risk, cross currency swaps and foreign exchange forward contracts are entered into in accordance with the Group's risk policy.

The following table sets out the Group's total exposure to major foreign currency risk, based on notional amounts, and the net FX exposure for those currencies.

	31 December 2019						31 December 2018					
(in thousand of currency)	**EUR**	**USD**	**CAD**	**GBP**	**AUD**	**NZD**	**EUR**	**USD**	**CAD**	**GBP**	**AUD**	**NZD**
Trade and other receivables	**7,955**	**110,127**	**175**	**1,992**	**2,577**	**460**	12,400	112,218	155	1,855	1,301	441
Other financial assets	**6,166**	**58,362**	**566**	**61**	**46**	**104,751**	8,378	40,660	595	81	72	94,845
Trade and other payables	**(48,260)**	**(144,256)**	**(5,946)**	**(804)**	**(1,888)**	**(1,177)**	(52,821)	(150,853)	(7,970)	(829)	(1,446)	(897)
Other financial liabilities	**(129)**	**(363,285)**	**-**	**(68,501)**	**-**	**-**	(3,175)	(330,061)	-	(52,950)	-	-
Gross balance sheet exposure	**(34,269)**	**(339,053)**	**(5,204)**	**(67,251)**	**735**	**104,034**	(35,217)	(328,035)	(7,220)	(51,843)	(73)	94,389
Forward FX contracts	**3,798**	**77,958**	**-**	**65,900**	**(1,580)**	**(105,100)**	6,449	90,495	-	51,800	-	(94,700)
Cross currency interest rate swaps (CCRS)	**-**	**258,000**	**-**	**-**	**-**	**-**	-	258,000	-	-	-	-
FX options	**-**	**-**	**-**	**-**	**-**	**-**	-	-	-	-	-	-
Net exposure	**(30,471)**	**(3,095)**	**(5,204)**	**(1,351)**	**(845)**	**(1,066)**	(28,768)	20,461	(7,220)	(43)	(73)	(311)
FX derivatives hedging forecasted trade positions												
Forward FX contracts	**12,286**	**2,713**	**-**	**-**	**-**	**-**	4,909	13,992	-	-	1,377	-
FX options	**17,500**	**-**	**-**	**-**	**-**	**-**	20,600	-	-	-	-	-

The impact on INR is limited and therefore not included in the table above.

Sensitivity analysis

A 10% strengthening of the euro at 31 December against the currencies listed above would have increased (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant. A 10% weakening of the euro against those same currencies would have had the equal but opposite effect.

The exchange impact on the net exposure is reflected in profit or loss as shown in the following table. The exchange impact on Items that are hedge accounting compliant is reflected in equity.

	2019					2018				
(in € thousand)	**USD**	**CAD**	**GBP**	**AUD**	**NZD**	**USD**	**CAD**	**GBP**	**AUD**	**NZD**
Equity	**(220)**	**-**	**1,504**	**-**	**-**	1,497	-	1,430	(77)	-
Profit or loss	**250**	**324**	**144**	**48**	**58**	(1,625)	421	4	4	17

(b) Credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

	2019	2018
(in € thousand)	**Carrying amount**	
Other non-current assets	**17,247**	15,764
Current amounts receivable	**356,049**	356,105
Forward exchange contracts used for hedging	**94**	4,173
CCRS	**50,309**	45,619
Cash and cash equivalents	**486,143**	386,000
Total	**909,842**	807,661

The maximum exposure to credit risk for trade receivables at the reporting date by geographic region was:

	2019	2018
(in € thousand)	**Carrying amount**	
Eurozone countries	**71,180**	77,711
United Kingdom	**18,206**	17,644
United States	**70,176**	50,616
Canada	**9,489**	14,227
New Zealand and Australia	**49,680**	60,247
Latin America	**53,023**	56,680
India	**25,992**	25,092
Other regions	**21,569**	25,428
Total	**319,315**	327,645

The ageing of trade receivables at the reporting date was:

	2019		2018	
(in € thousand)	**Gross**	**Impairment**	**Gross**	**Impairment**
Not past due	**242,924**	**318**	252,865	211
Past due 0 - 30 days	**50,135**	**150**	49,356	99
Past due 31 - 90 days	**19,649**	**502**	20,194	524
Past due 91 - 365 days	**9,275**	**1,759**	8,484	2,620
Past due more than one year	**14,187**	**14,126**	12,909	12,709
Total	**336,170**	**16,855**	343,808	16,163

The movement of impairment in respect of trade receivables during the year was as follows:

(in € thousand)	**2019**	**2018**
As at 1 January	**16,163**	16,349
Change in the consolidation scope	**16**	(0)
Recognised	**3,622**	4,910
Used	**(2,558)**	(2,994)
Reversed	**(1,184)**	(1,816)
Transfer to assets held for sales	**302**	(302)
Exchange difference	**493**	17
Total	**16,855**	16,163

The Group believes that the unimpaired amounts that are past due by more than 30 days are still collectable, based on historical payment behavior and analysis of customer credit risk.

(c) Commodity risk

At 31 December 2019, the Group had no outstanding commodity hedging contracts.

(d) Interest rate risk

At the reporting date, around 73% of the gross financial debt (excluding leases) were at floating rates, whereas around 52% of the net financial debt (financial assets deducted) were at floating rates.

Sensitivity to interest rate variations

A change of 25 basis points in interest rates at the reporting date would have increased (respectively decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant.

The analysis was performed on the same basis as in 2018. Due to extremely low interest rates prevailing in markets at the reporting date, a variation of 25 basis points only was assumed (25 basis points in 2018).

	2019				2018			
	Profit or loss		**Equity**		**Profit or loss**		**Equity**	
As at 31 December (in € thousand)	**25 bp increase**	**25 bp decrease**	**25 bp increase**	**25 bp decrease**	**25 bp increase**	**25 bp decrease**	**25 bp increase**	**25 bp decrease**
Variable rate instruments	**(854)**	**854**			(1,153)	1,153		
Interest rate derivatives	**4**	**(4)**	**-**	**-**	174	(174)	153	(154)
Cash flow sensitivity (net)	**(850)**	**850**	**-**	**-**	(979)	979	153	(154)

	2019				2018			
	Profit or loss		**Equity**		**Profit or loss**		**Equity**	
As at 31 December (in € thousand)	**25 bp increase**	**25 bp decrease**	**25 bp increase**	**25 bp decrease**	**25 bp increase**	**25 bp decrease**	**25 bp increase**	**25 bp decrease**
Fixed rate instruments	**557**	**(562)**			761	(769)		
Interest rate derivatives	**(752)**	**756**	**(71)**	**71**	(989)	997	(55)	55
Fair value sensitivity (net)	**(195)**	**194**	**(71)**	**71**	(228)	228	(55)	55

(e) Liquidity risk

The following were the contractual maturities of financial liabilities, including interest payments:

	At 31 December 2019				
(in € thousand)	Carrying amount	Contractual cash flows	1 year or less	1 to 5 years	More than 5 years
Non-derivative financial liabilities					
Unsecured bank facilities and others	(759,788)	(775,845)	(97,934)	(677,579)	-
Schuldschein certificates	(120,000)	(123,564)	(54,664)	(68,900)	-
US private placement	(247,711)	(283,948)	(11,759)	(221,013)	(51,176)
Other loans and borrowings	(176)	(176)	(176)	-	-
Lease liabilities	(118,439)	(133,732)	(33,526)	(47,429)	(52,777)
Trade and other payables	(461,562)	(461,562)	(442,509)	(19,053)	-
Bank overdrafts	(12,749)	(12,749)	(12,749)	-	-
Derivative financial instruments					
Forward exchange derivatives used for hedging - outflows	(4,675)	(50,316)	(50,316)	-	-
Forward exchange derivatives used for hedging - inflows	95	45,049	45,049	-	-
Interest rate swaps or options used for hedging	(3,619)	(3,836)	(1,322)	(2,514)	-
CCRS - outflows	(1,105)	(200,340)	(4,848)	(163,485)	(32,007)
CCRS - inflows	50,310	262,293	11,283	219,106	31,904
	(1,679,417)	(1,738,724)	(653,470)	(980,866)	(104,057)

	At 31 December 2018				
(in € thousand)	Carrying amount	Contractual cash flows	1 year or less	1 to 5 years	More than 5 years
Non-derivative financial liabilities					
Unsecured bank facilities and others	(758,719)	(784,458)	(55,203)	(729,255)	-
Schuldschein certificates	(120,000)	(125,444)	(1,928)	(123,516)	-
Secured bank loans	(25,721)	(26,679)	(24,096)	(2,584)	-
US private placement	(243,378)	(290,547)	(11,547)	(226,647)	(52,353)
Other loans and borrowings	(172)	(172)	(172)	-	-
Lease liabilities	(3,344)	(3,344)	(604)	(1,708)	(1,032)
Trade and other payables	(468,960)	(468,960)	(433,387)	(35,573)	-
Bank overdrafts	(12,836)	(12,836)	(12,836)	-	-
Derivative financial instruments					
Forward exchange derivatives used for hedging - outflows	(1,125)	(39,242)	(39,242)	-	-
Forward exchange derivatives used for hedging - inflows	4,173	41,810	41,810	-	-
Interest rate swaps or options used for hedging	(4,985)	(5,106)	(1,972)	(3,134)	-
CCRS - outflows	(2,508)	(205,518)	(6,350)	(166,367)	(32,801)
CCRS - inflows	45,619	269,929	12,584	224,741	32,604
	(1,591,956)	(1,650,567)	(532,942)	(1,064,042)	(53,582)

In particular, the following table indicates the periods in which the cash flows associated with derivatives that are cash flow hedges, are expected to occur and the fair value of the related instruments:

	At 31 December 2019				
(in € thousand)	Carrying amount	Expected cash flows	1 year or less	1 to 5 years	More than 5 years
Interest rate swaps	(3,047)	(3,196)	(916)	(2,281)	-
FX derivatives - outflows	(995)	(46,636)	(46,636)	-	-
FX derivatives - inflows	65	45,020	45,020	-	-
CCRS - outflows	(1,105)	(91,786)	(2,439)	(57,339)	(32,007)
CCRS - inflows	22,634	152,613	6,359	114,351	31,904
	17,553	56,015	1,388	54,731	(103)

	At 31 December 2018				
(in € thousand)	Carrying amount	Expected cash flows	1 year or less	1 to 5 years	More than 5 years
Interest rate swaps	(4,258)	(4,325)	(1,638)	(2,687)	-
FX derivatives - outflows	(250)	(38,368)	(38,368)	-	-
FX derivatives - inflows	582	38,219	38,219	-	-
CCRS - outflows	(2,508)	(96,157)	(3,862)	(59,493)	(32,801)
CCRS - inflows	17,589	157,487	7,753	117,130	32,604
	11,156	56,856	2,104	54,950	(197)

The following table indicates the periods in which those cash flows are expected to impact profit or loss:

	At 31 December 2019					
(in € thousand)	Carrying amount	Expected cash flows	Impact already in P&L	1 year or less	1 to 5 years	More than 5 years
Interest rate swaps	(3,047)	(3,196)	-	(916)	(2,281)	-
FX derivatives - outflows	(995)	(46,636)	-	(46,636)	-	-
FX derivatives - inflows	65	45,020	-	45,020	-	-
CCRS - outflows	(1,105)	(91,786)	-	(2,439)	(57,339)	(32,007)
CCRS - inflows	22,634	152,613	22,049	6,359	114,351	9,855
	17,553	56,015	22,049	1,388	54,731	(22,153)

	At 31 December 2018					
(in € thousand)	Carrying amount	Expected cash flows	Impact already in P&L	1 year or less	1 to 5 years	More than 5 years
Interest rate swaps	(4,258)	(4,325)	-	(1,638)	(2,687)	-
FX derivatives - outflows	(250)	(38,368)	-	(38,368)	-	-
FX derivatives - inflows	582	38,219	-	38,219	-	-
CCRS - outflows	(2,508)	(96,157)	-	(3,862)	(59,493)	(32,801)
CCRS - inflows	17,589	157,487	19,577	7,753	117,130	13,027
	11,156	56,856	19,577	2,104	54,950	(19,774)

(f) Description and fair value of derivatives

The table below provides an overview of the nominal amounts (by maturity) of the derivative financial instruments used to hedge the interest rate risk associated to the interest-bearing loans and borrowings (as presented in Note 25).

	Nominal amount 2019			Nominal amount 2018		
(in € thousand)	**1 year or less**	**1 to 5 years**	**More than 5 years**	**1 year or less**	**1 to 5 years**	**More than 5 years**
Interest rate swaps	**-**	**52,401**	**-**	67,818	50,633	-
CCRS	**-**	**154,116**	**31,560**	5,178	151,577	31,560
FX derivatives	**315,239**	**-**	**-**	290,658	-	-

The table below presents the positive and negative fair values of derivative financial instruments as reported in the statement of financial position. Also included are the notional amounts of the derivative financial instruments per maturity as presented in the statement of financial position.

	Fair value				Notional amount				
	Positive		Negative		< 6 months	6 to 12 months	1 to 5 years	> 5 years	Total
(in € thousand)	**Current**	**Non-current**	**Current**	**Non-current**					
Interest rate swaps	-	-	-	3,047	-	-	25,000	-	25,000
FX derivatives	65	-	995	-	21,336	26,098	-	-	47,434
CCRS	-	15,333	-	1,105	-	-	50,000	31,560	81,560
Derivatives held as cash flow hedges	65	15,333	995	4,152	21,336	26,098	75,000	31,560	153,994
CCRS	-	20,839	-	-	-	-	60,765	-	60,765
Derivatives held as fair value hedges	-	20,839	-	-	-	-	60,765	-	60,765
Interest rate swaps	-	-	-	560	-	-	26,812	-	26,812
Derivatives held as net investment hedges	-	-	-	560	-	-	26,812	-	26,812
CCRS	-	4,521	-	-	-	-	16,539	-	16,539
Derivatives held as fair value and net investment hedges	-	4,521	-	-	-	-	16,539	-	16,539
CCRS	-	9,616	-	-	-	-	26,812	-	26,812
Derivatives held as cash flow hedge and net investment hedges	-	9,616	-	-	-	-	26,812	-	26,812
Interest rate swaps	-	-	-	12	-	-	589	-	589
FX derivatives	29	-	3,680	-	266,055	1,750	-	-	267,805
Derivatives not under hedge accounting	29	-	3,680	12	266,055	1,750	589	-	268,395
Total	95	50,310	4,675	4,724	287,391	27,848	206,517	31,560	553,316
Total current and non-current		50,404		9,398					

Fair values of derivatives are determined by using the discounted cash-flows valuation method.

(g) Accounting for derivatives

The Group uses derivative instruments to hedge its exposure to foreign exchange and interest rate risks. Whenever possible, the Group applies the following types of hedge accounting:

- Cash flow hedge, for derivative financial instruments with a total notional amount of € 154 million (2018: € 217.6 million). The fair value adjustment for the effective portion of those derivatives is recognised directly via Other Comprehensive Income in the hedging reserve.

The evolution in the hedging reserve is as follows:

	2019		2018	
(in € thousand)	**Hedging reserve**	**Cost of hedging reserve**	**Hedging reserve**	**Cost of hedging resrve**
As at 1 January	**(6,734)**	**431**	(6,461)	(722)
Effective portion of changes in fair value of existing instruments	**6,984**	**(761)**	5,819	1,152
Existing instruments settled	**743**			
Deferred tax related to hedges	**(690)**		(145)	
Foreign currency translation differences	**(28)**	**(4)**	(71)	1
Scope change			(28)	
Recycling to income statement of FX impact on CCRS	**(2,472)**		(5,848)	
As at 31 December	**(2,197)**	**(334)**	(6,734)	431

The fair value adjustment for the ineffective portion of those derivatives is accounted for as a Finance Income or Expense.

- Fair value hedge, for derivative financial instruments with a total notional amount of € 60.8 million (2018: € 60.8 million). The fair value adjustment is recognised as a Finance Income or Expense.
- Net investment hedge for derivative financial instruments with a total notional amount of € 26.8 million (2018: € 25.1 million). The fair value adjustment for the effective portion of those derivatives is recognised directly via Other Comprehensive Income in the translation reserve. The fair value adjustment for the ineffective portion of those derivatives is accounted for as a Finance Income or Expense.
- Different combinations of hedge accounting types for derivative financial instruments with a total notional amount of € 43.4 million (2018: € 40.8 million).

The derivative financial instruments which cease to meet the criteria to be eligible for hedge accounting are accounted for as derivatives held-for-trading and the changes in fair value of those instruments are accounted for in profit or loss.

In 2019, the net fair value adjustment through Financial Income or Expense was a loss of € 1.1 million (2018: gain of € 0.4 million).

Following the issuance of the US private placement, the Group entered into several cross-currency swaps (CCRS) with external counterparts in order to partially convert the USD denominated cash flows from the USPP into CAD, GBP and EUR, for which hedge accounting has been applied:

- An aggregate nominal amount of USD 110.8 million relate to instruments to which fair value hedge accounting (or a combination with net investment hedge), is applied, with changes in fair value recorded through profit or loss. The hedged item is re measured to fair value with regards to foreign exchange and interest rate risks, with changes in fair value also recorded through profit and loss, in order to offset the fair value changes of the hedging instrument.
- An aggregate nominal amount of USD 147.2 million relate to instruments to which Cash Flow hedge accounting (or a combination with net investment hedge) is applied, with effective portion of change in fair value recorded in equity. The foreign exchange impact is immediately recycled to profit and loss, in order to offset the foreign exchange impact of the debt originating from the US private placement.
- Nominal amounts of CAD 39.1 million and GBP 14.1 million relate to instruments to which net investment hedge is applied. The effective portion of change in fair value is recorded into Other Comprehensive Income.

The table here below summarises for those CCRS entered with third parties, their respective fair-values with evidence of the foreign exchange (FX) component, interest (Intr.) component and the basis spread component, as they arise from the different hedging types being applied.

	Notional amount				Fair value (€)			
(in € thousand)	Currency			EUR	Total	Fx impact	Intr. Impact	Basis spread impact
Fair value hedges	USD	87,775			60,765	20,839	17,368	3,471	
Fair value and net investment hedge	USD	23,000	GBP	14,072	16,539	4,521	3,934	587	
Cash flow hedges	USD	107,225			81,560	14,228	13,887	572	(231)
Cash flow and net investment hedge	USD	40,000	CAD	39,140	26,812	9,616	8,794	863	(42)
					185,676	49,205	43,984	5,494	(273)

(h) Fair value hierarchy

The fair values of financial assets and liabilities, together with the carrying amounts shown in the balance sheet, are as follows:

	31 December 2019				31 December 2018			
(in € thousand)	Carrying amount	Fair value			Carrying amount	Fair value		
		level 1	level 2	level 3		level 1	level 2	level 3
Cash and cash equivalent	**486,143**		**486,143**		386,457		386,457	
Trade receivables	**384,406**		**384,406**		381,512		381,512	
Unsecured bank facilities and others	**(759,788)**		**(759,788)**		(758,719)		(758,719)	
Schuldschein certificates	**(120,000)**		**(121,902)**		(120,000)		(121,831)	
Secured bank loans	**-**		**-**		(25,721)		(25,721)	
US private placement	**(247,711)**		**(262,722)**		(243,378)		(245,997)	
Other loans and borrowings	**(176)**		**(176)**		(172)		(172)	
Trade and other payables	**(461,562)**		**(461,562)**		(468,960)		(468,960)	
Bank overdraft	**(12,749)**		**(12,749)**		(12,836)		(12,836)	
Forward exchange derivatives used for hedging - positive value	**95**		**95**		4,173		4,173	
Forward exchange derivatives used for hedging - negative value	**(4,675)**		**(4,675)**		(1,125)		(1,125)	
Interest rate swaps or options used for hedging	**(3,619)**		**(3,619)**		(4,985)		(4,985)	
CCRS - outflows	**(1,105)**		**(1,105)**		(2,508)		(2,508)	
CCRS - inflows	**50,310**		**50,310**		45,619		45,619	
	(690,430)	**-**	**(707,344)**	**-**	(820,642)	-	(825,092)	-

All derivatives are carried at fair value and as per the valuation method being used to determine such fair value, the inputs are based on data observable either directly (i.e., as prices) or indirectly (i.e., derived from prices). As such, the level in the hierarchy into which the fair value measurements are categorised, is level 2.

Non derivatives assets and liabilities are recognised at amortised cost.

The fair value is assessed using common discounted cash-flow method based on market conditions existing at the balance sheet date. Therefore, the fair value of the fixed interest-bearing liabilities is within level 2 of the fair value hierarchy. Floating rate interest-bearing financial liabilities and all trade and other receivables and payables have been excluded from the analysis as their carrying amounts are a reasonable approximation of their fair values.

32. Leases

Amounts recognised in the statement of financial position

The statement of financial position shows the following amounts relating to leases:

(in € thousand)	2019	2018
Land & buildings	**83,133**	1,853
Plant, machinery & equipment	**14,236**	243
Other	**18,366**	673
Under construction & advance payments	**(0)**	5
Total right-of-use assets	**115,736**	2,774
Current	**30,062**	604
Non-current	**88,377**	2,740
Total lease liabilties	**118,439**	3,344

In 2018, only the lease liabilities in relation to leases that were classified as 'finance leases' under IAS 17 Leases were recognised. These were presented as a part of the Group's borrowings.

On adoption of IFRS 16 on 1 January 2019 the Group recognised ROU assets and lease liabilities amounting to € 113.0 million in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17 Leases.

Additions to the right-of-use assets during the 2019 financial year amounted to € 34.9 million. Compared to the ROU assets recognised at date of initial application of € 113.0 million this amount is rather high which can be explained by numerous contract extensions in 2019 at Harrington Industrial Plastics LLC.

The total cash outflow for leases in 2019 was € 36 million.

The leases maturity analysis is noted below:

	2019			2018		
(in € thousand)	Minimum lease payments	Interest	Principal	Minimum lease payments	Interest	Principal
Less than 1 year	**33,526**	**3,464**	**30,062**	759	155	604
Between 1 and 5 years	**47,429**	**5,222**	**42,206**	2,046	338	1,708
More than 5 years	**52,777**	**6,607**	**46,170**	1,449	416	1,032
Total as at 31 December	**133,732**	**15,293**	**118,439**	4,254	910	3,344

Amount recognised in the income statement

The income statement shows the following amounts relating to leases:

(in € thousand)	2019	2018
Depreciation charge of right-of-use assets	**(33,903)**	(610)
Land & buildings	**(20,468)**	(197)
Plant, machinery & equipment	**(5,463)**	(83)
Other	**(7,972)**	(330)
Interest expense on leases	**(3,894)**	-
Total expense related to leases	**(37,797)**	(610)

In 2019, the lease depreciation amounted to € 33.9 million.

There was no material income from subleasing in 2019.

The Group has several lease contracts that include extension and termination options. These options are negotiated by management to provide flexibility in managing the leased asset portfolio and align with the Group's business needs. Management exercises significant judgement in determining whether these extension and termination options are reasonably certain to be exercised.

33. Guarantees, collateral and contractual commitments

As at 31 December (in € thousand)	2019	2018
Commitments secured by real guarantees	**613**	26,335
Contractual commitments to acquire assets	**32,527**	30,309

34. Contingencies

As is common with many manufacturing and distribution businesses, the Aliaxis companies may, in the ordinary course of their activities, from time to time be involved in legal and administrative proceedings. In cases where the outcome of such proceedings remains unknown, a contingent liability and/or asset may exist.

Some legal actions were filed in the US and Canada against Group companies in North America referring to allegedly defective plumbing products. Some of these proceedings contemplated class actions in the US and Canada. In March 2011, the Group companies signed a settlement (and blocked funds in a trust account until early 2020) and release with the various plaintiffs representing all settlement class members in the US and Canada. To be enforceable, this settlement, which does not imply any admission of liability, had to be, and has in fact been, finally approved by the Courts in early January 2012. The company has initiated discussions on the possibility to release excess funds.

Despite this settlement, the Group companies in North America are still exposed to residual claims from entities that are not part of the defined settlement class or that opted out of the settlement in the US and Canada. It is anticipated, however, that this residual potential exposure to liability will be covered by the provisions for product liability in the accounts (see Note 25 - Provisions) and dealt with in the ordinary course.

In the first quarter of 2015, a Group company in Costa Rica received a provisional tax assessment from the tax authorities relating to the tax year 2009. The total claim including penalties and interest as per the tax notice amounted to € 29 million. Taking advantage of a temporary tax amnesty to limit the exposure, the company opted to pay an amount of € 14 million to the tax authorities in Costa Rica. The company continues to challenge the decision on the merits in the judicial courts with the objective to recover all amounts paid.

35. Related parties

Key management compensation

The total remuneration costs of the Board of Directors and Global Leadership Team (GLT) until 30 September 2019 and Executive Committee (Exco) during 2019 amounted to € 9.8 million (2018 € 11.1 million). For members of the Board of Directors, this predominantly related to directors' fees while for members of the Global Leadership Team and Executive Committee this comprised fixed base salaries, variable remuneration, termination payments, pension service costs as well as share option grants.

(in € thousand)	2019	2018
Salaries (fixed and variable)	**9,258**	**10,510**
Retirement benefits	**589**	**606**
Total	**9,847**	**11,116**

36. Aliaxis companies

The most important direct and indirect subsidiaries of Aliaxis S.A are listed below. An exhaustive list of the Group companies with their registered office will be filed at the Belgian National Bank together with the consolidated financial statements.

Fully consolidated companies

Company	Financial interest %	City	Country
HOLDING AND SUPPORT COMPANIES			
Aliaxis Finance SA	100.00	Brussels	Belgium
Aliaxis Global Procurement Company S.à r.l.	100.00	Luxembourg	Luxembourg
Aliaxis Group SA	100.00	Brussels	Belgium
Aliaxis Holding Germany GmbH	100.00	Mannheim	Germany
Aliaxis Holding Italia Spa	100.00	Bologna	Italy
Aliaxis Holdings Australia Pty Ltd	100.00	Darling Hurst	Australia
Aliaxis Holdings SA	100.00	Brussels	Belgium
Aliaxis Holdings UK Ltd	100.00	Maidstone - Kent	UK
Aliaxis Ibérica S.L.	100.00	Alicante	Spain
Aliaxis Investments SA	100.00	Brussels	Belgium
Aliaxis Latinoamerica Cooperatief U.A.	100,00	Panningen	The Netherlands
Aliaxis Luxembourg S.à r.l.	100.00	Luxembourg	Luxembourg
Aliaxis Management Company SCRL	100.00	Brussels	Belgium
Aliaxis North America Inc	100.00	Ontario	Canada
Aliaxis R&D S.A.S.	100.00	Vernouillet	France
Aliaxis Services S.A.	100.00	Vernouillet	France
GDC Holding Ltd	100.00	Maidstone	UK
Glynwed Dublin Corporation	100.00	Dublin	Ireland
Glynwed Holding B.V.	100.00	Panningen	The Netherlands
Glynwed Inc	100.00	Wilmington	US
Glynwed N.V.	100.00	Brussels	Belgium
Glynwed Overseas Holdings Ltd	100.00	Maidstone	UK
Glynwed Pacific Holdings Pty Ltd	100.00	Adelaide	Australia
Glynwed USA Inc	100.00	Wilmington	US
GPS Beteiligungs Gmbh	100.00	Mannheim	Germany
GPS GmbH & Co.KG	100.00	Mannheim	Germany
GPS Holding Germany GmbH	100.00	Mannheim	Germany
IPLA B.V.	100.00	Panningen	The Netherlands
Marley European Holdings GmbH	100.00	Wunstorf	Germany
Marley Extrusions Ltd	100.00	Maidstone	UK
Marley Holdings Pty Ltd	100.00	Nigel	South Africa
Marley Trust Holding (Pty)	35.00	Nigel	South Africa
New Zealand Investment Holdings Ltd	100.00	Auckland	New Zealand
Nicoll Do Brasil Participações Ltda	100.00	São Paulo	Brasil
Panningen Finance BV	100.00	Panningen	The Netherlands
Société Financière Aliaxis SA	100.00	Brussels	Belgium
Société Financière du Héron SA	100.00	Brussels	Belgium
Société Financière du Val d'Or SA	100.00	Brussels	Belgium
The Marley Company (NZ) Ltd	100.00	Manurewa	New Zealand

Company	Financial interest %	City	Country
OPERATING COMPANIES			
Akatherm B.V.	100.00	Panningen	The Netherlands
Aliaxis Deutschland GmbH	100.00	Mannheim	Germany
Aliaxis Iberia S.A.U.	100.00	Okondo	Spain
Aliaxis Latin American Services SA	100.00	San José	Costa Rica
Aliaxis Singapore Pte Ltd	100.00	Singapore	Singapore
Aliaxis Utilities & Industry LLC	100.00	Moscow	Russia
Aliaxis Utilities & Industry Private Ltd	100.00	Mumbai	India
Aliaxis Utilities and Industry AB	100.00	Spaanga	Sweden
Aliaxis Utilities and Industry AG	100.00	Wangs	Switzerland
Aliaxis Utilities and Industry GmbH	100.00	Vienna	Austria
Aliaxis Utilities and Industry Kft	100.00	Biatorbagy	Hungary
Aliaxis Utilities and Industry S.A.S.	100.00	Mèze	France
Ashirvad Pipes Private Ltd	98.08	Bangalore	India
Canplas Industries Ltd	100.00	Barrie	Canada
Corporacion de Inversiones Dureco SA	100.00	Guatemala	Guatemala
DHM Plastics Ltd	100.00	Maidstone	UK
Dureco de El Salvador SA de CV	100.00	San Salvador	El Salvador
Dureco Honduras SA	100.00	Comayaguela	Honduras
Durman Colombia SAS	100.00	Cundinamarca	Colombia
Durman Esquivel Guatemala SA	100.00	Guatemala	Guatemala
Durman Esquivel Industrial de Nicaragua SA	100.00	Managua	Nicaragua
Durman Esquivel Puerto Rico Corp.	100.00	Caguas	Puerto Rico
Durman Esquivel SA	100.00	Panama	Panama
Durman Esquivel SA	99.99	San José	Costa Rica
Durman Esquivel SA de CV	100.00	Mexico DF	Mexico
Dux Industries Ltd	100.00	Auckland	New Zealand
Dynex Extrusions Ltd	100.00	Auckland	New Zealand
Fip Formatura Inezione Polimeri spa	100.00	Casella	Italy
FRIATEC S.A.R.L.	100.00	Nemours	France
Girpi S.A.S.	100.00	Harfleur	France
Glynwed Pipe Systems Ltd	100.00	Cannock	UK
GPS Shanghai Co Ltd	100.00	Shanghai	China
Hamilton Kent Inc	100.00	Toronto	Canada
Hamilton Kent LLC	100.00	Delaware	US
Harrington Industrial Plastics de Mexico de RL De CV	100.00	Querétaro	Mexico
Harrington Industrial Plastics LLC	100.00	Chino	US
Hunter Plastics Ltd	100.00	Maidstone	UK
Innoge PE Industries S.A.M.	100.00	Monaco	Monaco
IPEX Branding Inc.	100.00	Toronto	Canada
IPEX de Mexico SA de CV	100.00	Querétaro	Mexico
IPEX Electrical Inc.	100.00	Toronto	Canada
IPEX Inc	100.00	Toronto	Canada
IPEX Management Inc./IPEX Gestion Inc.	100.00	Toronto	Canada
IPEX Technologies Inc.	100.00	Toronto	Canada
IPEX USA LLC	100.00	Wilmington	US
Jimten S.A.	100.00	Alicante	Spain
Marley Deutschland GmbH	100.00	Wunstorf	Germany
Marley Magyarorszag ZRT	100.00	Szekszard	Hungary
Marley New Zealand Ltd	100.00	Manurewa	New Zealand
Marley Pipe Systems (Namibia) (Pty) Ltd	100.00	Windhoek	Namibia
Marley Pipe Systems (SA) (Pty) Ltd	99.19	Nigel	South Africa
Multi Fittings Corporation	100.00	Wilmington	US
Nicoll Polska Sp. z o.o.	100.00	Olesnica	Poland
Nicoll Ceska Republika	100.00	Vestec	Czech Rep.
Nicoll E.P.E. Sarl	100.00	Kifisia	Greece
Nicoll Industria Plastica Ltda	100.00	São José dos Pinhais	Brasil
Nicoll Nordic A/S	100.00	Koege	Denmark
Nicoll Peru S.A.	100.00	Lima	Peru
Nicoll S.A.	99.99	Buenos Aires	Argentina
Nicoll SA	100.00	Herstal	Belgium
Nicoll Uruguay S.A.	100.00	Montevideo	Uruguay
Nicoll Vostok	100.00	Moscow	Russia
Paling Industries Sdn Bhd	100.00	Petaling Jaya Selangor	Malaysia
Perforacion y Conduccion de Aguas SA	100.00	San José	Costa Rica
Philmac Pty Ltd	100.00	North Plympton	Australia
Raccords et Plastiques Nicoll S.A.S.	100.00	Cholet	France
Redi Spa	100.00	Bologna	Italy
RX Plastics Limited	100.00	Ashburton	New Zealand
Sanitaertechnik Eisenberg GmbH	100.00	Eisenberg	Germany
SCI Frimo	100.00	Darvault	France
SCI LAML	100.00	Darvault	France
Silver-Line Plastics LLC	100.00	Asheville	US
Sociedad Industrial Tuboplast S.A.	100.00	Santiago	Chile
Straub Werke AG	100.00	Wangs	Switzerland
The Universal Hardware and Plastic Factory Ltd	51.00	Kowloon	Hong Kong
VigotecAkatherm S.A.	50.00	Brussels	Belgium
Vinidex Pty Ltd	100.00	New South Wales	Australia
Vinilit SA	100.00	Santiago	Chile
Wefatherm GmbH	100.00	Wunstorf	Germany
Zhongshan Universal Enterprises Ltd	51.00	Zhongshan City	China

The entity Friatec GmbH Germany changed their name to Aliaxis Deutschland GmbH and Material de Aireación SA Spain changed their name to Aliaxis Iberia S.A.U.

During 2019, Aliaxis Asia Pte Ltd has been merged into Aliaxis Singapore Pte Ltd and Akatherm FIP GmbH has been merged into Aliaxis Deutschland GmbH.

The entities Friatec do Brasil Industria de Bombas Ltda Brazil, Glynwed Benelux BC The Netherlands and Rheinhutte Pumps United States were sold with the scope out of Pumps in April 2019.

37. Services provided by the statutory auditor

(in € thousand)	2019	2018
Audit:		
Audit services		
KPMG in Belgium	**442**	413
Other offices in the KPMG network	**2,329**	2,051
Audit-related procedures and services		
KPMG in Belgium	**3**	9
Other offices in the KPMG network	**84**	43
Sub-total	**2,858**	2,516
Other services:		
Tax	**335**	312
Other services	**459**	15
Sub-total	**794**	327
Services provided by the Statutory Auditor	**3,652**	2,843

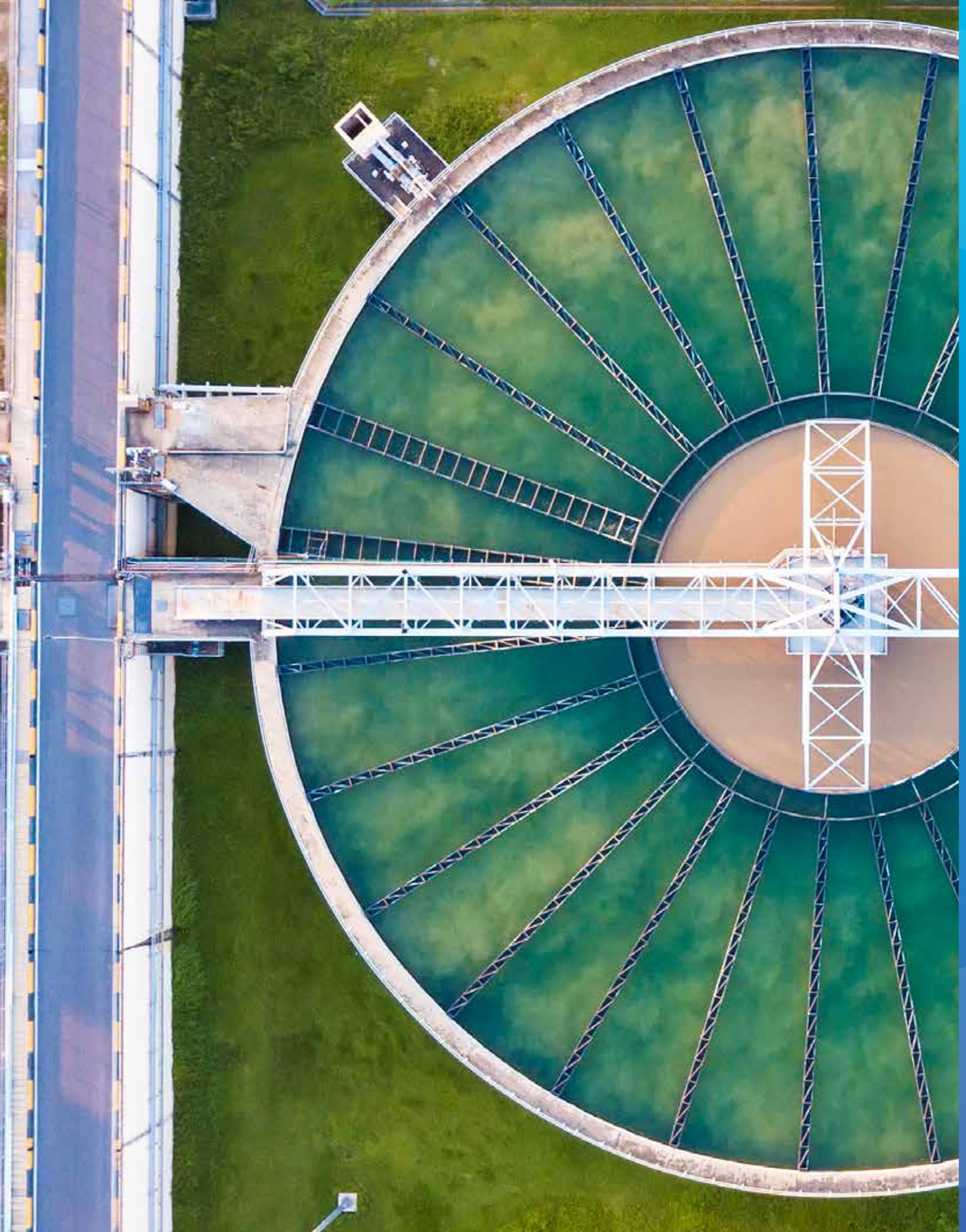
38. Subsequent events

Divestment

On 3 March 2020, Aliaxis completed the divestment of Harrington Industrial Plastics. This divestment is in line with the Company's strategy to explore new paths for non-core activities. Net proceeds allowed the Group to further deleverage and to further strengthen its balance sheet and financial position in view of the current challenging environment following the COVID-19 outbreak.

Outlook

Aliaxis is, as many other global industrial groups, facing an unprecedented public health crisis, and all people and business-related implications associated therewith, following the outbreak and spread of COVID-19. The Board of Directors and management are closely following the situation and the Company takes all necessary measures to protect the health and well-being of our people and to ensure business continuity to the benefit of all our stakeholders. The company is entering this crisis with a healthy financial position and robust committed financing in place. Strong sales in the first months of 2020 coupled with the divestment of Harrington in March 2020 allowed to further deleverage and to further strengthen the balance sheet and financial position, in view of the current challenging environment following the COVID-19 outbreak. Nevertheless, we monitor the situation closely and are pro-actively taking all necessary contingency measures to ensure we can protect our business, employees and customers.



6.

Auditor’s report

Auditor's report

Statutory auditor's report to the general meeting of Aliaxis SA on the consolidated financial statements as of and for the year ended 31 December 2019

In the context of the statutory audit of the consolidated financial statements of Aliaxis SA ("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 31 December 2019, as well as other legal, regulatory and professional requirements. Our report is one and indivisible.

We were appointed as statutory auditor by the general meeting of 23 May 2018, in accordance with the proposal of the board of directors. Our mandate will expire on the date of the general meeting deliberating on the annual accounts for the year ended 31 December 2020. We have performed the statutory audit of the consolidated financial statements of Aliaxis SA for 17 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 31 December 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 31 December 2019, the consolidated statements of profit or loss and other comprehensive income, changes in equity and 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 EUR 3.422.567 (000) and the consolidated statement of profit or loss shows a profit for the year of EUR 184.306 (000).

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

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Document Classification: KPMG Public

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België - Belgique

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BTW - TVA BE 0419.122.548
RPR Brussel - RPM Bruxelles

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.

Emphasis of matter – subsequent events

We draw attention to Note 38 of the consolidated financial statements, which describes the effects of the Covid-19 crisis on the operations and financial situation of the Group. Our opinion is not modified in respect of this matter.

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 board of directors 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.

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 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

Statutory auditor's report to the general meeting of Aliaxis SA on the consolidated financial statements as of and for the year ended 31 December 2019

Belgium, our responsibility is to verify, in all material respects, 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:

— Our business

— Corporate governance

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.

Information about the independence

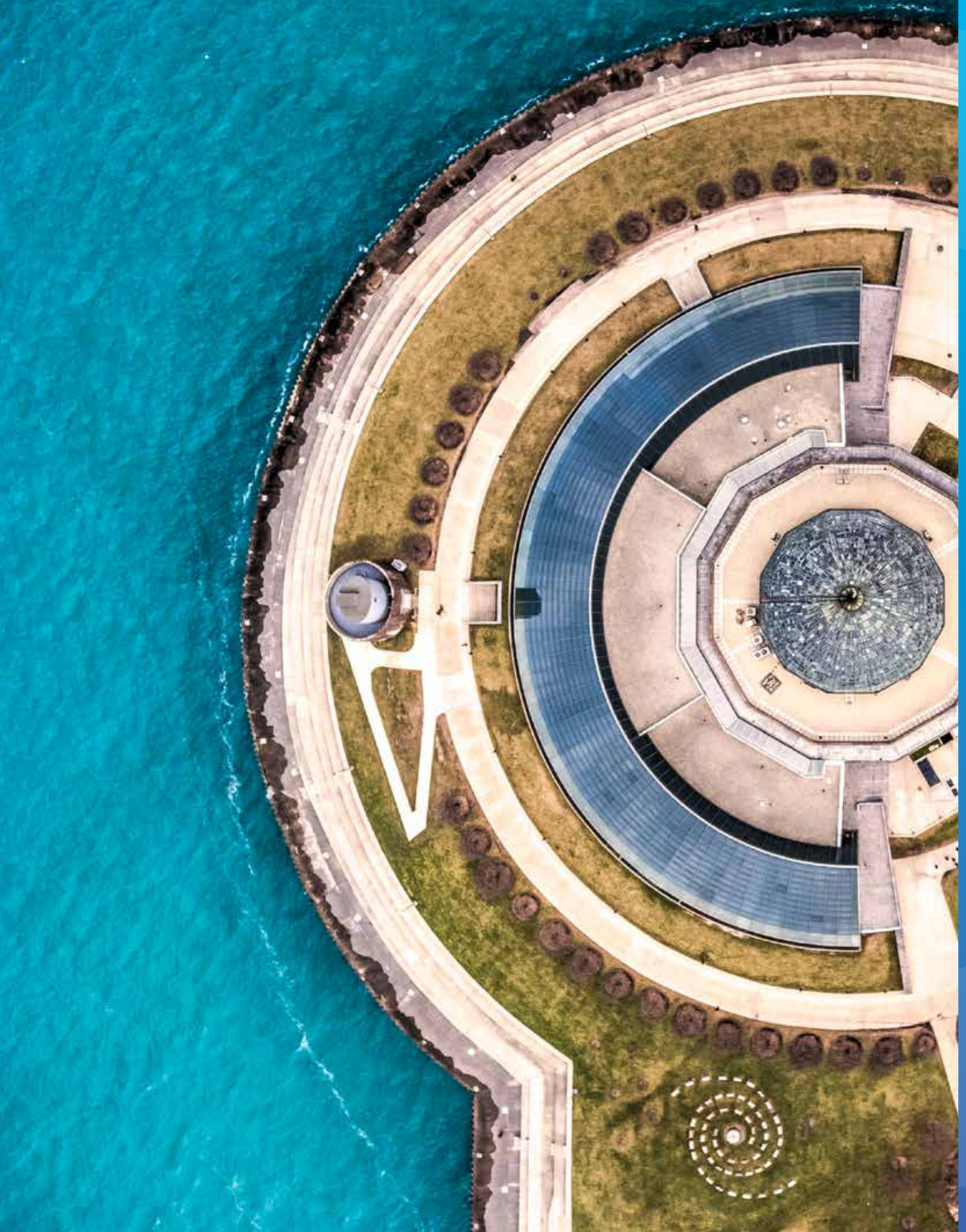
— Our audit firm and our network have not performed any engagement which is incompatible with the statutory audit of the consolidated financial statements and our audit firm remained independent of the Group during the term of our mandate.

— 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.

Zaventem, 23 April 2020

KPMG Bedrijfsrevisoren / Réviseurs d'Entreprises
Statutory auditor
represented by

Filip De Bock
Réviseur d'Entreprises / Bedrijfsrevisor



7.

Non-consolidated accounts, profit distribution and statutory appointments

Non-Consolidated Accounts, Profit Distribution and Statutory Appointments

The annual statutory accounts of Aliaxis S.A. are summarised below.

In accordance with the Belgian Company Code, the annual accounts of Aliaxis S.A., including the Directors' Report and the Auditor's Report, will be registered at the Belgian National Bank within the required legal timeframe

These documents are also available upon request at:

Aliaxis S.A.
Group Finance Department
Avenue Arnaud Fraiteur, 15/23
1050 Brussels - Belgium

The Auditor, KPMG Bedrijfsrevisoren/Réviseurs d'Entreprises, has expressed an unqualified opinion on the annual statutory accounts of Aliaxis S.A.

Summarised balance sheet after profit appropriation

As at 31 December (in € thousand)	2019	2018
Intangible and tangible assets	**-**	-
Financial assets	**1,454,349**	1,358,665
Non-current loans and borrowings	**1,454,349**	1,358,665
Current assets	**1,632**	1,273
Total assets	**1,455,981**	1,359,938
Equity and liabilities		
Capital	**62,666**	62,666
Share premium	**13,332**	13,332
Revaluation reserve	**92**	92
Reserves	**1,048,922**	1,048,922
Profit carried forward	**303,177**	180,452
Capital and reserves	**1,428,189**	1,305,464
Liabilities	**27,792**	54,474
Total equity and liabilities	**1,455,981**	1,359,938

Summarised profit and loss account

As at 31 December (in € thousand)	2019	2018
Income from operations	**-**	-
Operating expenses	**(1,756)**	(1,712)
Operating loss	**(1,756)**	(1,712)
Financial result	**151,951**	51,501
Income taxes	**(721)**	(165)
Profit for the period	**149,474**	49,624

Profit distribution

Aliaxis' Board of Directors proposes to pay a net dividend of € 0.20545 per share. The proposed gross dividend is € 0.2935 per share, representing 12.6% of the consolidated basic earnings per share of € 2.33. The dividend is subject to shareholder approval at the General Shareholders' Meeting on May 27, 2020.

The dividend will be paid on 1 July 2020 against the return of coupon No. 17 at the following premises:

- Banque Degroof Petercam S.A.;
- BNP Paribas Fortis Banque S.A.;
- Belfius Banque S.A.;
- as well as at our registered office.

The profit appropriation would be as follows:

As at 31 December (in € thousand)	2019	2018
Profit brought forward	**180,452**	184,311
Profit for the period	**149,474**	49,624
Gross dividend	**(26,748)**	(53,483)
Profit carried forward	**303,177**	180,452

Statutory appointments

The mandate of 3F Advisory sprl as Director, represented by Mr. Olivier Hamoir, will expire at the next general meeting of shareholder on May 27, 2020. He is candidate for re-election. Upon recommendation of the Appointments and Remuneration Committee, the Board of Directors proposes to the shareholders the re-election for a term of three years ending at the general meeting of shareholders of 2023.

8.

Glossary

Glossary

Revenue (Sales)
Amounts invoiced to customers for goods and services provided by the Group, less credits for returns, rebates and allowances and discounts for cash payments

EBITDA
EBIT before charging depreciation, amortisation and impairment

Current EBITDA
Current EBIT plus depreciation, amortisation and impairment (other than goodwill impairment)

Current EBIT
Operating profit exclusive adjusted items

EBIT
Operating income

Net profit (group share)
Profit of the year attributable to equity holders of the Group

Capital expenditure
Expenditure on the acquisition of property plant and equipment, investment properties and intangible assets

Net financial debt
The aggregate of (I) non-current and current interest-bearing loans and borrowings and (II) bank overdrafts, less (III) cash and cash equivalents

Capital employed
The aggregate of (I) intangible assets, (II) property, plant & equipment, (III) investment properties, (IV) inventories and (V) amounts receivable, less the aggregate of (a) current provisions, and (b) current amounts payable

Non-cash working capital
The aggregate of (I) inventories and (II) amounts receivable, less the aggregate of (a) current provisions, and (b) current amounts payable

Return on capital employed (%)
EBIT / average of capital employed at 1 January and 31 December x 100

Return on equity (group share) (%)
Net profit (group share) / average of equity attributable to equity holders of Aliaxis at 1 January and 31 December x 100

Effective Income tax rate (%)
Income taxes / profit before income taxes x 100

Pay-out ratio (%)
Gross dividend per share / basic earnings per share x 100

Key figures

(in € million)	2019	2018	2017	2016	2015
Revenue	3,117.6	3,095.0	3,094.7	2,949.4	3,047
Current EBITDA	440.1	415.1	411.4	358.8	395
as % on sales	*14.1%*	*13.4%*	*13.3%*	*12.2%*	*13.0%*
Current EBIT	300.1	308.5	300.4	243.5	290
as % on sales	*9.6%*	*10.0%*	*9.7%*	*8.3%*	*9.5%*
Operating income (EBIT)	323.6	273.2	273.5	193.5	288
as % on sales	*10.4%*	*8.8%*	*8.8%*	*6.6%*	*9.4%*
Net profit (Group share)	183.0	137.1	143.2	101	160
Capital expenditure (incl. leasing)	151.6	86.6	110.6	106	147
as % of depreciation and amortisation	*108%*	*81%*	*100%*	*96%*	*142%*
as % of current EBITDA	*34%*	*21%*	*27%*	*30%*	*37%*
Total equity	1,409	1,258	1,624	1,623	1,573
Net financial debt	771	775	357	464	508
Return on capital employed	15.0%	12.8%	12.3%	8.6%	12.7%
Return on equity (Group share)	13.8%	9.8%	9.2%	6.6%	11.1%
Number of employees	15,511	16,088	15,904	16,087	16,167

(in € per share)	2019	2018	2017	2016	2015
Earnings					
Basic	*2.33*	*1.74*	*1.82*	*1.26*	*2.00*
Diluted	*2.33*	*1.74*	*1.82*	*1.26*	*1.99*
Gross dividend	0.2935	0.58685	0.5335	0.485	0.44
Net dividend	0.20545	0.410795	0.37345	0.3395	0.3212
Payout ratio	12.6%	33.7%	29.3%	38.4%	22.0%
Outstanding shares at 31 December (net of treasury shares)	78,288,855	78,739,901	78,725,401	78,781,879	80,111,194

Notes

Colophon

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