Delivering on our strategy

Annual Report 2017

About this report

Our 2017 Annual Report consists of the following documents, which can be downloaded in pdf format:

2017 ANNUAL REVIEW

The report tells Umicore's story of the year. It explains who we are and what we do, the context in which we operate, including the risks and opportunities, and outlines our strategy and the progress we have made towards achieving our goals.

2017 GOVERNANCE AND STATEMENTS

The report covers Umicore's approach to corporate governance. It also includes financial results for the year as well as detailed environmental and social performance data for the group.

The report is externally verified and has been prepared in accordance with the GRI Standards: Core option. Find the full GRI Index on pages 211-214.

WEB-BASED CONTENT

To access the full web-based report including our case studies please visit our dedicated reporting centre via the link below.

VISIT ANNUALREPORT.UMICORE.COM

Front cover image: Employee working in our Automotive Catalysts plant in Tokoname, Japan, 2017

Inside back cover: Employer branding advertisement

2017 Annual review

As a materials technology and recycling group, we develop products and processes that are essential to address key societal challenges such as the need for cleaner mobility and the growing scarcity of raw materials. Our drive to be a leader in sustainability is not just about minimizing the impact of our industrial operations. Our aim is to have a positive impact on society at large.

In 2017, we made significant strides towards the ambitious targets that we had set ourselves as part of the Horizon 2020 strategy. We accelerated growth investments in rechargeable battery materials, simplified the portfolio of activities and made further progress in terms of environmental performance and sustainable supply. All of that while achieving record results.

Looking forward, Umicore will be stepping up growth investments and research & development efforts to strengthen its market positions and amplify the revenues and profit growth.

horizon 2020

Horizon 2020 progress

LAST YEAR WE SET OUT OUR NEW STRATEGY FOR SUSTAINABLE SUCCESS.
THIS GIVES A SNAPSHOT OF WHY OUR OBJECTIVES ARE IMPORTANT AND OUR PROGRESS IN THE YEAR.

	ECONOMIC PERFORMANCE			VALUE CHAIN AND SOCIETY	
OUR OBJECTIVES	STRENGTHEN LEADERSHIP	DOUBLE THE EARNINGS	REBALANCE PORTFOLIO	SUSTAINABLE SUPPLY	SUSTAINABLE PRODUCTS & SERVICES
WHY THEY ARE IMPORTANT	To position Umicore to thrive faced with the accelerating global megatrends of stringent emissions control, transport electrification and resource scarcity.	To secure Umicore's future success and sustainability by consistently investing in R&D to develop and market innovative products and services, and to ramp-up capacity to meet growing market demand for Umicore products and services.	To sharpen Umicore's focus on the ambitious growth initiatives in clean mobility materials and recycling.	To provide environmental and ethical sourcing benefits for comparatively scarce raw materials in order to foster sustainable success and growth.	To develop products and services that create sustainable value for our customers and society and increase resource security.
KEY ACHIEVEMENTS	GROUP REVENUES ANNUAL GROWTH +9%	2017 REBIT INCREASE +24% VS 2016 +56% VS 2014	38% CATALYSIS 32% ENERGY & SURFACE TECHNOLOGIES 30% RECYCLING	FULLY ALIGNED WITH OECD DUE DILIGENCE GUIDANCE FOR RESPONSIBLE SUPPLY CHAINS OF MINERALS FROM CONFLICT-AFFECTED AND HIGH-RISK AREAS	64.6% OF TOTAL REVENUES FROM CLEAN MOBILITY AND RECYCLING
SOCIETAL ALIGNMENT	11 SUSTAINABLE CITIES AND COMMUNITIES 12 RESPONSIBLE CONSUMPTION AND PRODUCTION			8 DECENT WORK AND ECONOMIC GROWTH 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	

READ MORE ABOUT ECONOMIC PERFORMANCE ON PAGE 18

READ MORE ABOUT VALUE CHAIN AND SOCIETY ON PAGE 25

OUR OBJECTIVES

	ECO-EFFICIENCY	GREAT PLACE TO WORK		
	EFFICIENT OPERATIONS	SAFETY	HEALTH	PEOPLE ENGAGEMENT
WHY THEY ARE IMPORTANT	To make sustainability an irrefutable competitive advantage for Umicore.	To offer a safe workplace and embed a safety culture in our workforce.	To monitor, manage and protect from exposure risks.	To ensure Umicore's status as an employer of choice in all the regions where we operate. To manage talent as a driver for reaching our desired business growth.
KEY ACHIEVEMENTS	ENERGY CONSUMPTION **-21%** vs 2015 benchmark, adjusted for intensity	NUMBER OF ACCIDENTS **51**	EXCESS READINGS* **2.7%** * based on internal target values	TOTAL EMPLOYED **9,769** RETENTION RATE **94.97%**

SOCIETAL ALIGNMENT

READ MORE ABOUT ECO-EFFICIENCY ON PAGE 28

READ MORE ABOUT GREAT PLACE TO WORK ON PAGE 31

OUR MATERIAL ISSUES AND STAKEHOLDER ENGAGEMENT

The Horizon 2020 strategy represents a strong focus on materially important topics for Umicore in the coming years: Economic performance, Value Chain and Society, Eco-Efficiency, and Great Place to Work.

Umicore applies a localised approach to stakeholder engagement and manages stakeholder relationships in line with our decentralised approach to unit management.

READ MORE ABOUT THIS ON PAGES 53-62

CEO & Chairman's review

MARC GRYNBERG AND THOMAS LEYSEN LOOK BACK ON 2017 AND EVALUATE THE OUTLOOK FOR UMICORE

MARC GRYNBERG CEO
& **THOMAS LEYSEN** CHAIRMAN

Umicore set **a record performance in 2017** on the back of strong growth in Energy & Surface Technologies. Recurring EBIT grew by 17% to € 410 million (or by 24% to € 398 million excluding discontinued operations). Return on Capital Employed grew from 14.6% in 2016 to 15.1% in 2017, reaching the value creation level that we set ourselves as a long-term goal.

Our progress is measured against the **Horizon 2020 strategic plan** which we launched in 2015, aiming to make Umicore a clear leader in clean mobility materials and recycling, while doubling company earnings, balancing the contribution from the three business groups, and turning our leadership in sustainability into a greater competitive edge. Such has been the progress against these goals that we anticipate approaching our Horizon 2020 target of doubling recurring EBIT to € 500 million in 2018, having established an equitable balance in contribution amongst Recycling, Catalysis and Energy & Surface Technology in 2017.

Contribution by business group showed well balanced contributions to the overall result. Revenues in Energy & Surface Technologies increased by 46%, reflecting strong volume growth and fast ramp-up of new production capacity in Rechargeable Battery Materials and – to a lesser extent – volume growth in Cobalt & Specialty Materials. Revenues and recurring EBIT for Catalysis increased by 8% and 9% respectively, reflecting higher sales of heavy-duty diesel catalysts, the positive impact of the full consolidation of Ordeg and higher volumes in the Precious Metals Chemistry business unit. Revenues and recurring EBIT for Recycling were slightly higher year-on-year, with the positive impact of higher processed volumes and more supportive metal prices partly offset by lower commercial terms in the second half of the year. Profitability in Recycling remains very strong and will be further supported by the gradual ramp-up of additional capacity in Hoboken.

GROUP FINANCIAL HIGHLIGHTS

REVENUES

€ 2,916m

RECURRING EBIT

€ 410m

R&D EXPENDITURE

6%

of revenues

CAPEX

€ 365m

Non-recurring charges had a negative impact of € 46 million on EBIT and were primarily due to the divestment or closure of selected businesses and sites.

We continued to make substantial **investments** in our strategic growth areas, with 2017 capital expenditure amounting to € 365 million mainly as a result of the continuing expansion in plant capacity for cathode materials in China and Korea. These organic investments were supplemented by selected acquisitions that will extend the customer base and product portfolio: Umicore has acquired the remaining 50% of Ordeg in Korea, Materia's Metathesis catalyst business, Eurotungstène in France as well as the heavy-duty diesel and stationary catalyst businesses of Haldor Topsoe.

2017 was a decisive year in bringing more focus to our portfolio of activities. We completed the sale of our Building Products business unit to Fedrus International in September, thereby turning a page in the long history of Umicore. We also completed the sale of the large area coating business to First Rare Materials at the end of the year. Following this divestment, we will close the production site in Providence, Rhode Island, and integrate the remaining activities of the former Thin Film Products business unit into Electro Optic Materials. An agreement was reached on 1 December to sell the European activities of Technical Materials to Saxonia Edelmetalle and the deal was completed at the end of January 2018. We integrated the North American and Brazilian operations of Technical Materials into the Jewellery & Industrial Metals unit, pending the examination of further strategic options for the former while the Chinese operations had been closed in early 2017. New ownership of the divested activities will position them better for the future, while our organisational simplification will sharpen Umicore's focus on the ambitious growth initiatives in clean mobility materials and recycling. Other internal simplification steps included the move of the Battery Recycling business line to Cobalt & Specialty Materials and the merger of Platinum Engineered Materials into Jewellery & Industrial Metals. With these moves, we have completed the portfolio realignment that was announced early 2015 and which has brought the number of business units down from fifteen to nine and the number of production sites down from 64 to 51.

Our **cash flows and capital structure** remained strong in 2017, although the cash-out for acquisitions was only partially offset by divestment proceeds. The Board of Directors will propose a gross annual dividend of € 0.70 per share and this will be presented to the shareholders for approval at the Annual General Meeting in April 2018.

Our Horizon 2020 strategy includes the continued pursuit of **sustainability goals** such as zero accidents in the workplace and demonstrable sustainability of supply, aiming to make sustainability an irrefutable competitive argument in favour of Umicore. Progress towards these objectives was varied in 2017.

Our 2017 **safety** performance did not show sufficient improvements in our pursuit of accident-free workplaces. Excluding the Building Products business unit which was divested in September, the total number of lost time accidents was 51 (compared to 54 in 2016) with a frequency rate of 3.01 (3.37 in 2016) and a severity rate of 0.09 (0.58 in 2016). Our efforts to improve these results will continue in 2018, with new awareness campaigns and specific programmes aimed at changing mindset and creating a more prominent safety culture. Occupational exposure

GROUP NON-FINANCIAL HIGHLIGHTS

ECO-EFFICIENCY

21%

improvement in energy consumption vs 2015 benchmark adjusted for intensity

SAFETY

51

accidents in 2017 vs 59 in 2016

PEOPLE ENGAGEMENT

5.03%

of voluntary leavers in 2017

levels have decreased, with Rechargeable Battery Materials making the most significant improvements in 2017.

We measure our **eco-efficiency** against our Horizon 2020 goal of performing equally well or better than in 2015, with values adjusted for activity levels. All the main indicators showed significant improvement in 2017. Metal emissions to water were 69% down on 2015 values, compared to only 1% improvement in 2016, as the new biological water treatment plant became fully operational in Hoboken with an improved management system to deal with the risk of flooding. Metal emissions to air were 41% down on 2015, compared with 30% in 2016; in particular thanks to further work in Hoboken to reduce lead dust emissions (see page 28). In terms of energy efficiency, our energy consumption was down 21% compared to 2015 (compared with a 7% improvement in 2016).

In 2017, our efforts to make Umicore a **great place to work** included a number of diversity initiatives: the "Focus on Women" project (see page 31), the appointment of non-Europeans to senior management positions and to the Board of Directors. With a significant part of Umicore's expansion taking place in Asia, where the labour market is both fluid and competitive, we are deploying new initiatives to support recruitment and retention of talent, including a new worldwide Employer Branding programme which was launched in November 2017.

Customers in the automotive and electronics sectors are increasingly demanding that we demonstrate **sustainability of supply**. We have used our expertise in cobalt and gold supply chain due diligence to establish a practice of responsible sourcing of platinum group metals as well as for raw materials used in cathode materials. This is well received by customers and, together with our unique ability to recycle end-of-life products in a closed loop, illustrates how we turn sustainability into a greater competitive advantage. We also initiated life cycle analyses of various products and services including the manufacturing of cathode materials, battery recycling and services from Precious Metals Refining in line with our Horizon 2020 sustainability objectives.

We see clear evidence that the three **megatrends** identified as business drivers for Umicore are, once again, ever-more pronounced. The most remarkable has been the rise in **electrified vehicles** adoption which, combined with the successful qualification of our materials for several of these new vehicle models, creates the need for an accelerated addition of production capacity for cathode materials. Against this backdrop, Umicore launched in early 2018 a new € 660 million investment programme which will strengthen our position at the forefront of this industry. The need for **cleaner mobility** continues to be a concern and we still see a growing need for emission control catalysts where full-electric solutions are not yet an option, such as light petrol-engine passenger cars or heavy-duty diesel applications. The growth in emission control catalysts is set to be amplified by the upcoming introduction of tighter emission norms in several regions including Europe, China and India. **Resource scarcity** continues to be a concern especially for metals vital to clean mobility and communications technologies. Here too, Umicore maintains a technological edge in an area that generates our highest return on capital employed. We already have an industrial pilot line for the recycling of electrical vehicle batteries and will ensure that larger scale recycling facilities are ready to come on stream in the mid-2020s, when the current generation of electrified vehicles reach the

"Umicore set a record performance in 2017... reaching the value creation level that we set ourselves as a long-term goal... and bringing more balance to our portfolio of activities."

end of their working lives. Meanwhile, much of the battery recycling volume will depend on ensuring smaller batteries from domestic appliances, including mobile telephones, are collected efficiently so that we can recover the metal contents to supply further development in the battery industry.

Our **geo-political environment** remains as volatile as it was a year ago and we will continue to strive to build coherency in an unpredictable environment by focusing on our strategic goals and remaining agile in tailoring Umicore's market approach and in our ability to ramp up new production activities quickly and effectively.

The two-volume format of our Annual Report introduced in 2016 was a new step in our reporting journey, reaffirming our commitment to fully integrated reporting. While keeping the same clear structure in the 2017 edition, including the comprehensive overview of our business model, value creation and value chain, we have brought further clarity on the material elements that drive our business. We have sought to align with the latest Global Reporting Initiative and to facilitate access to the texts through indexing and iconography. We hope you will find this report clear and informative.

As we close this review, we would like to express great thanks to all our stakeholders for their contribution to our success over the course of 2017. We see the very successful equity offering made in early 2018 and through which we raised close to € 900 million as a clear vote of confidence from our investors in Umicore's strategy and positioning. We are looking forward to further successes in 2018 and we firmly believe that Umicore is in a great position to ensure shared success for all stakeholders, whether customers, suppliers, employees, business partners or shareholders.

MARC GRYNBERG CEO
& **THOMAS LEYSEN** CHAIRMAN

UMICORE AT A GLANCE

Enabling a more sustainable world

WE ARE A GLOBAL GROUP FOCUSED ON MATERIALS TECHNOLOGY AND RECYCLING. OUR WORK HELPS IMPROVE AIR QUALITY, MAKES ELECTRIFIED TRANSPORT POSSIBLE AND TACKLES RESOURCE SCARCITY

REVENUES

€ 2,916m

R&D EXPENDITURE

6%
of revenues

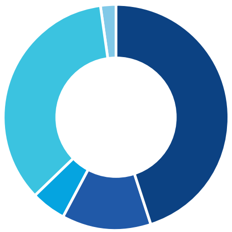
RECURRING EBIT

€ 410m

RECURRING EPS

€ 1.22
per share

REVENUES BY GEOGRAPHY



- 45% EUROPE
- 13% NORTH AMERICA
- 5% SOUTH AMERICA
- 35% ASIA-PACIFIC
- 2% AFRICA

RESOURCE EFFICIENCY

- 38% PRIMARY MATERIALS
- 49% SECONDARY MATERIALS
- 13% END-OF-LIFE MATERIALS

COLLEAGUES

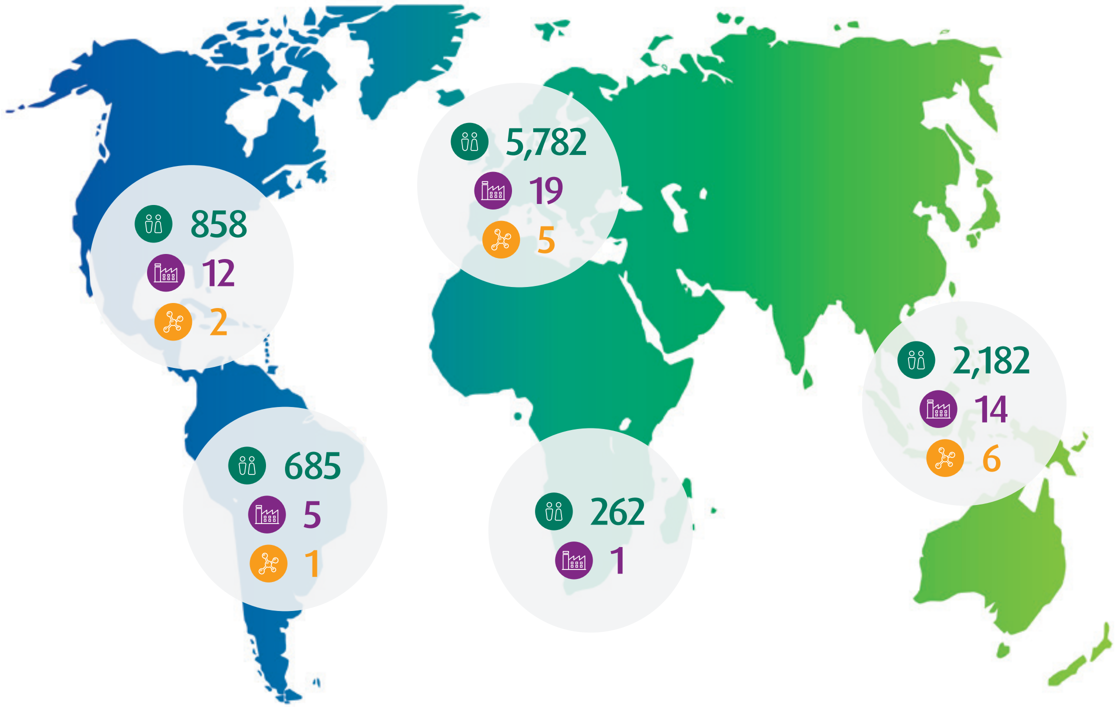
9,769

PRODUCTION SITES

51

R&D | TECHNICAL CENTRES

14



Three complementary business groups

OUR THREE BUSINESS GROUPS ADDRESS SPECIFIC CUSTOMER NEEDS. TOGETHER, THEY COMPLEMENT EACH OTHER, SHARING KNOWLEDGE AND EXPERTISE

BUSINESS GROUP	MAIN INDUSTRIES SERVED	MAIN END USES	KEY ACHIEVEMENTS	KEY FIGURES
CATALYSIS Umicore provides automotive catalysts for gasoline and diesel light and heavy duty diesel applications, including on-road and non-road vehicles. The business group also offers stationary catalysis for industrial emissions control and produces precious metals-based compounds and catalysts for use in the pharmaceutical and fine chemicals industries.	Automotive, chemicals, construction, shipping, pharmaceuticals, power generation	Emission control for industry and for light and heavy-duty, on and non-road vehicles, catalysts for life science and chemicals, pharmaceutical ingredients for cancer treatment	- Earnings growth of 9% - Full ownership of Ordeg Co. Ltd, Korea - Acquisition of the heavy-duty diesel (HDD) and stationary catalyst businesses Haldor Topsoe - Agreement to acquire Materia's metathesis catalyst business	**REVENUES** **€ 1,253m** **RECURRING EBIT** **€ 166m** **COLLEAGUES** **2,952**
ENERGY & SURFACE TECHNOLOGIES Umicore's products are found in applications used in the production and storage of clean energy and in a range of applications for surface technologies that bring specific properties and functionalities to end products. All our activities offer a closed loop service for our customers.	Electronics, automotive, rechargeable batteries, aerospace	Portable electronics, electrified vehicles, photovoltaics, semiconductors, machining and drilling tools, tyres, fibre optics, LED, flat screens	- Earnings growth of 72% - € 300 million further expansion of our battery materials production capacity in China and Korea - Divestment of the large area coatings activity of Thin Film Products and merger of remaining activity with Electro-Optic Materials	**REVENUES** **€ 894m** **RECURRING EBIT** **€ 141m** **COLLEAGUES** **2,716**
RECYCLING Umicore treats complex waste streams containing precious and other specialty metals. Our operations can recover 20 of these metals from a wide range of input materials ranging from industrial residues to end-of-life materials. Other activities include production of precious metals-based materials that are essential for applications as diverse as high-tech glass production, electrics and electronics.	Non-ferrous metals mining and refining, automotive, electronics, energy, chemicals, optics and displays, precious metals	Jewellery, high-quality glass, investment bars, power distribution, heating, ventilation and cooling installations, nitric acid production	- ROCE of 26% - Ramp-up of the additional capacity in Hoboken, Belgium - Precious Metals Refining reached a higher overall level of processed volumes than in 2016 - Continued conflict-free smelter certification of all Umicore smelters for gold - Ongoing divestment of Technical Materials in Europe	**REVENUES** **€ 650m** **RECURRING EBIT** **€ 128m** **COLLEAGUES** **3,092**

Our group structure

UMICORE HAS BROUGHT MORE FOCUS TO OUR PORTFOLIO OF ACTIVITIES. OUR THREE BUSINESS GROUPS ARE NOW COMPOSED OF NINE BUSINESS UNITS

CATALYSIS

AUTOMOTIVE CATALYSTS

A world leader in emission control catalysts for light-duty and heavy-duty vehicles for all fuel types. Now also including non-road heavy-duty diesel catalysts and stationary catalysts for industrial plant emissions control.

PRECIOUS METALS CHEMISTRY

Developer and producer of metal-based catalysts used in chemistry, life sciences and pharmaceutical applications.

ENERGY & SURFACE TECHNOLOGIES

COBALT & SPECIALTY MATERIALS

Producer of cobalt and nickel specialty chemicals for a wide range of applications, including tyres, pigments, catalysts and surface treatment. Now also responsible for proprietary lithium-ion rechargeable battery recycling technology.

RECHARGEABLE BATTERY MATERIALS

A leading cathode material supplier for lithium-ion rechargeable batteries used in portable electronics and electrified vehicles.

ELECTROPLATING

Supplier of precious metal electrolytes & processes for technical, functional and decorative applications.

ELECTRO-OPTIC MATERIALS

Supplier of products for thermal imaging and wafers for space solar cells and high brightness LEDs and chemicals for fibre optics. Now also producer of evaporation material and sputter targets for optics and microelectronics industry.

RECYCLING

PRECIOUS METALS REFINING

Operator of the world's most sophisticated precious metals recycling facility able to recover 17 precious and other valuable metals from complex waste streams.

PRECIOUS METALS MANAGEMENT

Services for hedging, leasing, purchasing and sale of precious metals to internal and external customers.

JEWELLERY & INDUSTRIAL METALS

Supplier of precious metals creating products for the jewellery and industrial sector and specialist in the manufacturing of platinum group metals components for the special glass and chemical industries, offering recycling solutions.

GLOBAL TRENDS

Taking on the big challenges

OUR BUSINESS MODEL AND HORIZON 2020 STRATEGY ARE FOCUSED ON MAKING A DIFFERENCE IN THE WORLD'S MOST PRESSING ISSUES

CLEAN AIR

While regulation has gradually led to reduced air pollution over the past 30 years, many opportunities remain for further emissions reduction given the major challenges to human health from poor air quality.

WHAT IS THE POTENTIAL IMPACT?

Combustion engines produce toxic emissions such as nitrogen oxides (NO_x), hydrocarbons and particulate matter, making road transport a major source of air pollution. According to 2016 data analysis published by the World Bank, air pollution is the fourth deadliest health risk worldwide, triggering one in ten premature deaths. A 2016 UNICEF study revealed that around 300 million children live in areas where the air is toxic – exceeding international limits by at least six times.

WHAT IS UMICORE'S CONTRIBUTION?

We are one of the world's leading producers of catalysts and catalytic filters used in emission abatement systems for light and heavy-duty vehicles, on-road and off-road. Our catalysts and particulate filters convert fossil fuel pollutant emissions into harmless gases and trap the particulate matter, enabling our customers to meet present and future environmental standards. Our products have prevented hundreds of million tonnes of harmful pollutants from being emitted into the air.

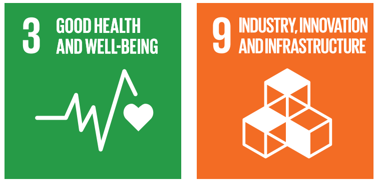
In 2017, we opened a new production plant for emission control catalysts in Rayong, Thailand, serving the hub of Southeast Asia's automotive industry. To better address the global needs of our Korean automotive catalyst customers, we acquired full ownership of Korean automotive catalyst joint venture, Ordeg Co. Ltd. We also expanded catalytic solutions for on-road and non-road heavy-duty diesel by integrating Haldor Topsoe's DeNOx technology.

WHAT IS THE STORY IN 2017?

Worldwide, the trend towards more stringent automotive emission legislation and targets has continued. In Europe, building on the 2015 Euro 6 norm which limits the permitted level of NO_x for diesel cars, cities are leading on action for clean air.

The automation and electrification of transport has dominated the public debate on closing the global emissions gap, while new measures on driving emissions push industry for innovation in emission control system design, including catalysts and catalytic filters.

UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)



Umicore is working to meet the growing demand for clean mobility and clean air and striving to ensure resource efficiency, resilience and sustainability in industry's supply chain.

Taking on the big challenges

VEHICLE ELECTRIFICATION

The transport sector is responsible for over 14% of global anthropogenic greenhouse gas emissions. Electrified mobility will play a key role in reducing both CO_2 and NO_x emissions, improving air quality and reducing dependence on fossil fuels.

WHAT IS THE POTENTIAL IMPACT?

The transport sector is the fastest growing source of global greenhouse gases, the largest share of which come from road transport. Electrified transport is essential for meeting global ambition of reduced emissions and clean air by combining energy efficient systems with renewable energy sources to offer clean, quiet, powerful transport.

WHAT IS UMICORE'S CONTRIBUTION?

Umicore is one of the world's leading producers of cathode materials for lithium-ion batteries. Cathode materials are key in determining the power and energy density of rechargeable batteries, and hence the maximum driving distance in the case of electrified vehicles. Our nickel-manganese-cobalt (NMC) cathode materials are a reference in the industry.

To meet the growing market demand, we announced an investment programme of € 300 million between 2017 and 2019 to further increase our production of NMC cathode materials for lithium-ion rechargeable batteries. This programme entails further investments in Cheonan (Korea) and Jiangmen (China). Combined with the € 160 million investment announced in 2016, this will result in over a six-fold increase in total capacity by 2020 compared to 2015 levels.

WHAT IS THE STORY IN 2017?

In 2017, the number of electrified vehicles (EV) continued to grow, with over two million EVs on the road. This number is expected to increase exponentially in the coming years.

Several countries and regions have drafted ambitious vehicle emissions reduction targets. In Europe, EU legislation requires fleet average to be achieved by all new cars of 95 grammes of CO_2 per kilometer by 2021. As part of the 2016 European Strategy for Low-Emission Mobility, in the fourth quarter of 2017 the European Commission released its second clean mobility package which included a legislative proposal with new targets for the EU fleet-wide average on CO_2 emissions of new passenger cars and light commercial vehicles from 2025 and 2030. The package includes a flagship initiative to support European battery development and innovation.

Incentives favouring electric vehicles are increasing around the world. In 2017, China – the global leader in electric car and bus sales – announced a fossil-fuel car manufacturing phase-out that starts at a 10% production minimum of "new energy vehicles" in 2019 and increases targets for following years.

UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Umicore is working to optimise resource use and reduce pollution, and provide solutions for a cleaner and more resilient future.

Taking on the big challenges

RESOURCE SCARCITY

Trends such as continued population growth, urbanisation and more affluent lifestyles are driving ever-higher demand for resources. This poses the question – how will we meet future demand?

WHAT IS THE POTENTIAL IMPACT?

Demand for specialty and precious metals will also be driven by reducing the environmental impacts of society, through the development of technologies such as rechargeable batteries. On the one hand, mining metals from primary sources has significant environmental impacts, including a high CO_2 footprint per tonne of recovered metal. Easy-to-mine deposits are becoming increasingly scarce and ore bodies poorer. On the other hand, many specialty metals required for new, environmentally-friendly technologies can only be produced as a by-product of other metals.

WHAT IS UMICORE'S CONTRIBUTION?

Our facility in Hoboken is the world's largest and most complex precious metals recycling operation, processing over 200 types of raw material and recovering over 20 different metals. These raw materials range from mining and industrial residues to "End-of-life" materials, such as electronic scrap and spent rechargeable batteries. Treating complex materials from these above-ground sources is increasingly important and Umicore is growing its capacity to cater to rising demand. As part of our closed-loop business model, most of our business units also recycle industrial residues from customers. Umicore's recycling not only offers environmental and ethical sourcing benefits, but also increased resource security.

WHAT IS THE STORY IN 2017?

Eco-innovation and circular economy were key 2017 considerations while globally, the UN SDGs became the benchmark reference for both political and industrial strategies. The European Commission mobilised circular economy stakeholders in addition to delivering options for the improved legislative interface of chemicals, products, and waste and a monitoring framework for circular economy. Additionally, the G7 committed to an alliance on Resource Efficiency and the mission of the B20, in support of the G20 business community, was initiated with resource efficiency as a concrete priority action.

UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Umicore is determined to foster sustainable growth and champion its circular business model.

Creating a competitive advantage

WE BELIEVE THE CIRCULAR USE OF RESOURCES IS ESSENTIAL FOR SUSTAINABLE GROWTH. OUR BUSINESS MODEL CENTRES ON A SHIFT AWAY FROM A LINEAR 'TAKE, MAKE, WASTE' ECONOMY

WHAT WE NEED

We need critical resources and relationships to run effectively and sustainably:

- Metal-containing raw materials
- Energy and auxiliary materials
- Skills and expertise
- Investment and funding

READ MORE ABOUT RESOURCES & RELATIONSHIPS ON PAGE 15

WHAT WE DO & HOW WE DO IT

We produce and recycle metal-related materials.

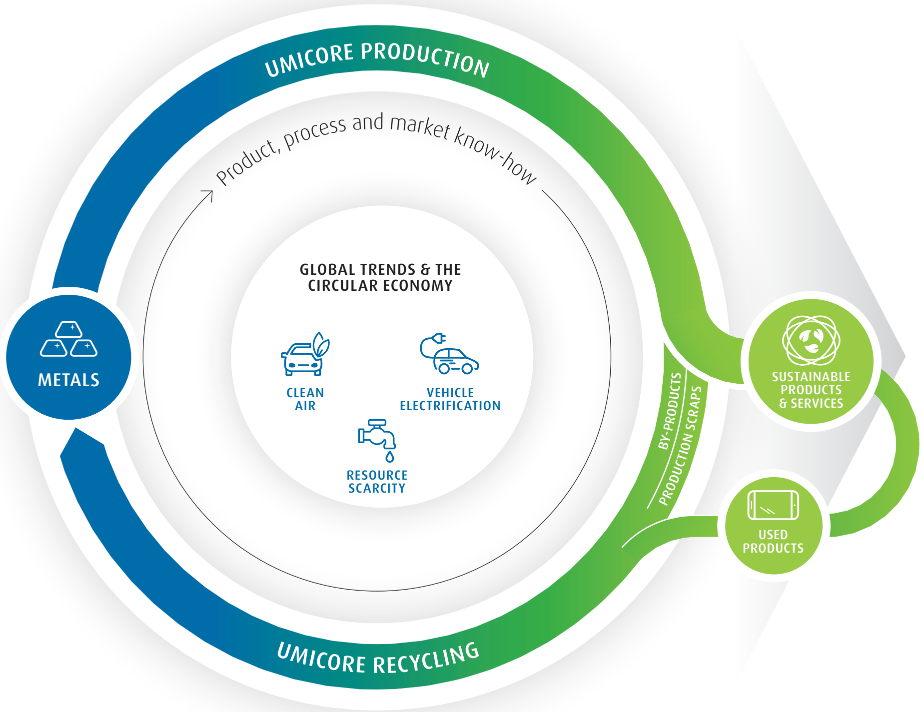
Our closed loop operational model ensures that we extract the valuable metals from industrial residues and "end-of-life" materials for reuse.

We combine our metallurgy, chemistry and materials science competences with a thorough understanding of our customers' needs.

The Umicore Way outlines our values, our commitment to the principles of sustainable development and the way in which we wish to achieve our business goals.

We aim for a high degree of focus and to simplify the way we do things. This supports us in realising our ambitions.

READ MORE ABOUT OUR PRODUCTS & SERVICES ON PAGE 16



THE CONTRIBUTION WE MAKE

Our integrated approach to business means we believe in delivering value for all stakeholders through:

- Enhanced quality of life through all of our products
- High quality employment
- Shareholder returns
- Societal contribution

READ MORE ABOUT THE VALUE WE CREATE ON PAGE 17

Managing resources and relationships

MANY FACTORS – FROM RAW MATERIALS SUPPLY TO TALENT RETENTION – COULD AFFECT OUR ABILITY TO DO BUSINESS. WE MANAGE THESE RESOURCES AND RELATIONSHIPS IN A RESPONSIBLE AND ETHICAL WAY

METAL-CONTAINING MATERIALS

Our activities are focused on products and services containing precious and specialty metals. **Our closed loop business model ensures that a high volume of our metals come from recycled sources** – production scraps and residues from customers and other industries as well as "End-of-life" materials.

Metals are unique in that they can be recycled infinitely without losing any of their chemical or physical properties. This creates an outstanding ingredient for sustainable materials production and is one of the foundations of our business model.

Overall, we can recover 28 metals from these closed-loop activities, 20 of which from our Recycling business group alone. The remainder of our metal supplies come from primary sources, for which Umicore has a mix of long-term and shorter-term procurement arrangements.

We buy sustainably and ethically sourced materials using our Sustainable Procurement Charter and/or, where necessary, procurement frameworks specific to certain metals.

ENERGY AND AUXILIARY MATERIALS

Input materials such as fuels and chemicals are essential to Umicore operations and are purchased using our Sustainable Procurement Charter framework. In most of the countries where we operate, and given the specific nature of many of our operations, there is limited choice in terms of energy sourcing. For this reason, our priority is to maximise energy and auxiliary materials efficiency.

SKILLS AND EXPERTISE

Umicore operates 51 industrial sites and several offices and research centres, located in 30 countries. For Umicore to be successful, we must attract talent for positions that range from production operators, engineers, research scientists, to commercial and administrative functions. In turn, our colleagues contribute to Umicore through their expertise and commitment. **Metallurgy, chemistry, engineering and materials science skills are critically important in our key growth areas: recycling and materials for clean mobility.** We anticipate that much of our growth will take place in Asia and this will mean a greater focus on attracting talent in this region.

INVESTMENT AND FUNDING

Investing in Umicore is an investment in producing materials for a better life – our mission – and supporting our strategy. **Umicore has a proven track record of funding strategic growth initiatives from the capital generated from our own operations.** Indebtedness is kept at low levels, as we aim to retain the equivalent of an investment grade credit status.

> "Our priority is to maximise energy and auxiliary materials efficiency."

Delivering industry-leading solutions

WE HARNESS OUR KNOWLEDGE OF METALLURGY, CHEMISTRY AND MATERIALS SCIENCE TO DELIVER PRODUCTS AND SERVICES THAT ENHANCE PEOPLE'S LIVES

UMICORE OPERATIONS

Our operations are carried out in 51 production industrial sites, ranging from large-scale recycling plants to specialised chemicals and materials production facilities.

We currently run two types of recycling operations. Our precious metals recycling operation in Hoboken, Belgium, is built to recycle and refine the most complex materials and to recover a broad spectrum of metals. Our other recycling operations, in collaboration with customers, seek to recover one or two metals from production residues.

Umicore specialised materials production facilities tend to be located close to our customers in order to support close collaboration and to meet their very specific product requirements.

Umicore aims for excellence in environmental and social performance in all its operations. We seek, for example, to minimise the impact of metal emissions and to generate improved material and energy efficiency. We also strive to achieve a safe and healthy work place. Operational excellence is important both in securing our license to operate and in helping to make Umicore more competitive.

UMICORE TECHNOLOGY

Technology is at the core of our success. From production and process technology, to deep knowledge of metallurgy and materials science, we develop a significant part of our technology using Umicore research and development (R&D) findings. We invest 6% of our revenues in R&D every year. Umicore also develops technology in collaboration with industrial or academic partners and, where appropriate, we protect our intellectual property with patents.

SUSTAINABLE PRODUCTS AND SERVICES

Our materials are integrated into products by our customers, usually industrial companies that make products for consumer or industrial use. **By working in close collaboration with these customers, we develop custom materials or processes that take into account health and safety, recyclability, cost efficiency, waste reduction and energy efficiency both in our own facilities and in the value chain.** We aim to anticipate developing trends – for example, the push towards substituting potentially hazardous materials in products – to provide additional value to our customers.

> "Umicore aims for excellence in environmental and social performance in all its operations."

Creating shared value

THROUGH OUR CLOSED-LOOP BUSINESS MODEL, WE CREATE VALUE FOR ALL OUR STAKEHOLDERS ECONOMICALLY, SOCIALLY AND ENVIRONMENTALLY

ENHANCING QUALITY OF LIFE THROUGH OUR PRODUCTS & SERVICES

Our ambition is to produce materials for a better life. Our main contributions are in the areas of recycling and materials for clean mobility. Our recycling services address growing resource scarcity and reduce waste and CO_2 emissions. Our automotive catalysts help reduce air pollution from internal combustion engines, while our rechargeable battery materials help make electrified transportation a reality.

Umicore products can be found in a host of applications that make day-to-day life more comfortable, often contributing to a cleaner environment. For example, Umicore materials are in television screens, in computer motherboards, in domestic light switches and in the fibre optics and satellites that keep you connected.

HIGH QUALITY EMPLOYMENT

Umicore offers high quality employment to 9,769 colleagues in 30 countries – positions range from scientific researchers to production engineers and from supply chain experts to administrative support functions. We offer competitive salaries, training and development opportunities and long-term employment prospects to our employees. **Each of our sites aims to be considered as a preferred employer in its specific context.** Umicore supports the principle of collective bargaining and has signed a Global Framework Agreement on Sustainable Development with the IndustriALL Global Union.

SHAREHOLDER RETURNS

Umicore aims to provide superior growth and returns to its shareholders. Our aim – across the economic cycle – is to generate a return on capital employed of more than 15%. One of our Horizon 2020 ambitions is to double the earnings of the company, mainly through growth in recycling and materials for clean mobility. While the primary focus of Umicore is on organic growth, acquisitions are also considered provided they fit the strategy and have the potential to add value for shareholders. Our dividend policy is to pay out a stable or gradually increasing dividend. We have a track record of returning excess cash to shareholders in the form of share buybacks.

SOCIETAL CONTRIBUTION

Our operations, products and services contribute to addressing many societal and environmental challenges as defined by the United Nations Sustainable Development Goals (SDG). We contribute to several SDGs, namely: Sustainable Cities & Communities, Responsible Consumption & Production, Affordable & Clean Energy, Decent Work & Economic Growth, Good Health & Wellbeing and Gender Equality. You can find out more about this overarching contribution on pages 11 to 13 and explore our approach to stakeholder engagement in more detail on pages 53 to 58.

materials for a better life

Driving economic performance

STRENGTHEN LEADERSHIP

DOUBLE THE EARNINGS

REBALANCE PORTFOLIO

KEY RISKS & OPPORTUNITIES

- Regulatory and legal context
- Sustainable and ethical supply
- Technology and substitution
- Market
- Metal price

2020 TARGET

- Confirm our strong position and unique offer in clean mobility materials and recycling processes
- At least double the size of recurring EBIT compared to 2014 excluding the discontinued operations
- Ensure a more balanced distribution of earnings among the three business groups

SDGs

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

CASE STUDY

Powering towards a future in Electric Vehicles

Battery technology will need to evolve to do more with less: more power density and longer range with less weight and material. Umicore is exploring iterative improvements to NMC technology and the use of high-density composite anodes.

VISIT ANNUALREPORT.UMICORE.COM

Economic review

WE AIM TO ENHANCE OUR LEADERSHIP IN CLEAN MOBILITY MATERIALS AND RECYCLING. THE 2017 RESULTS WERE WELL AHEAD OF PLAN COMPARED TO OUR HORIZON 2020 GOALS

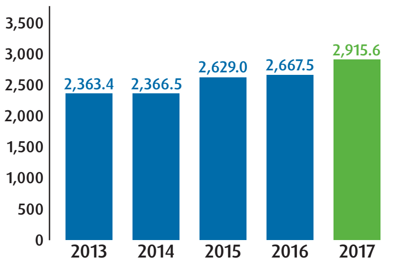
Revenues
€ 2.9 billion (+9%) *€ 2.8 billion (+16%)**
Recurring EBITDA
€ 599 million (+14%) *€ 587 million (+18%)**
Recurring EBIT
€ 410 million (+17%) *€ 398 million (+24%)**
ROCE
15.1% *(vs. 14.6% in 2016)*
Recurring net profit (Group share)
€ 267 million *(+15%)*
Recurring EPS
€ 1.22 *(+14%)*
Net debt
€ 840 million *(€690 million long-term private debt)*
Capital expenditures
€ 365 million

*excluding discontinued operations

OVERVIEW

Umicore recorded strong growth in 2017 with revenues from continued operations increasing by 16% and recurring EBIT by 24% from 2016 levels. Including discontinued operations, revenues increased by 9% and recurring EBIT by 17%. This is largely due to the outstanding growth in Energy & Surface Technologies and the gradual ramp-up of new production capacity for cathode materials. The Catalysis and Recycling business groups also contributed to overall growth in revenues and earnings. Return on Capital Employed is now above our target of 15%, thereby confirming that growth is not being pursued to the detriment of margins.

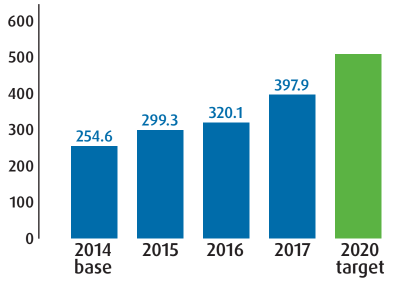
REVENUES (EXCLUDING METAL)
Million of Euros



The portfolio realignment announced in 2015 was completed: Umicore divested the Building Products business, the large area coating activity of Thin Film Products and sold the European operations of Technical Materials. At the same time, Umicore completed selected acquisitions that strengthen our position in Catalysis and in Energy & Surface Technologies with the heavy duty and stationary emission control catalyst activities of Haldor Topsoe, the metathesis catalyst business of Materia and by acquiring Eurotungstene and the remaining interest for full ownership of Korean automotive catalyst maker Ordeg. This portfolio realignment has simplified the organisation and sharpened the focus on the strategic growth priorities in clean mobility materials and recycling.

With our global presence and unique competences, Umicore is well positioned to take advantage of accelerating global megatrends: stringent emissions control, transport electrification and resource scarcity.

RECURRING EBIT
Million of Euros



Economic review

GROUP PERFORMANCE

CATALYSIS

Revenues and recurring EBIT for Catalysis increased 8% and 9% respectively, reflecting higher sales of heavy-duty diesel catalysts and the positive impact of the full consolidation of Ordeg in Automotive Catalysts as well as higher volumes in the smaller Precious Metals Chemistry business unit.

Revenues for **Automotive Catalysts** increased compared to the previous year mainly due to the full consolidation of Ordeg in Korea since the second quarter, as well as strong demand for our heavy-duty diesel catalysts in Europe and in China. The acquisition of the heavy-duty diesel and stationary emission control catalyst activities from Haldor Topsoe was completed in December 2017.

Global light-duty vehicle production grew 2% in 2017, with a decline in car production in North America being offset by solid growth in Europe and China and the recovering car market in Japan and South America. Umicore's sales volumes were below the market growth primarily due to lower demand from Korean car manufacturers which faced subdued car sales in China, as well as an unfavourable platform and customer mix in North America.

In Europe, Umicore's revenues were impacted by the less favourable engine mix with a smaller share of diesel car production. Demand for Umicore's gasoline catalysts remained strong, in particular for the more efficient direct injection engines to which Umicore is well exposed.

In North America, Umicore's revenues decreased somewhat more than the market. This was due to a delayed platform introduction along with a less favourable customer mix, as Umicore is relatively less exposed to the growing Asian car brands in the region. There was a strong recovery of the South American market and Umicore's revenues were in line with the market growth.

In China, Umicore's revenues grew well above the market as a result of a strong positioning with both global and domestic brands and in spite of the drop in demand for Korean car brands in the region. Umicore's revenues continued to grow with Japanese OEMs globally and locally, supported by the strong recovery of the Japanese car market. In Korea, Umicore's revenues were subdued in an overall stagnating market, while in India and Thailand, revenues outperformed the market growth.

Demand is set to grow significantly in China and India due to the market expansion and the introduction of more complex catalyst systems to meet the upcoming China VI and Bharat Stage 6 emission standards. Against this backdrop, Umicore has decided to substantially increase its catalyst production capacity in China and double capacity in India. The new capacity will come on stream at the end of 2019.

Revenues for **Precious Metals Chemistry** increased significantly compared to the previous year as a result of higher volumes across product groups. The acquisition of Materia's metathesis catalyst IP and business portfolio, which was completed in January 2018, will enable the business unit to broaden its homogenous catalysts offer and expand its customer base.

ENERGY & SURFACE TECHNOLOGIES

In Energy & Surface Technologies, revenues grew by 46% year-on-year and recurring EBIT by 72% with strong performance across businesses. The volume growth in cathode materials was the largest growth driver and the swift ramp-up of new capacity has supported the volume growth in the second part of the year, while delivering the first scale effects.

Revenues and volumes for **Rechargeable Battery Materials** were significantly higher year-on-year, driven by strong demand for Umicore's cathode materials used in Li-ion batteries across the main applications (transportation, portables and energy storage). The fast ramp-up of additional production capacity in China and Korea supported this rapid growth over the year and allowed for an acceleration in the second half of the year.

The main driver for the continued strong demand for Umicore's proprietary Cellcore® NMC (nickel manganese cobalt) cathode materials was the increase in demand for electrified cars with sales of full electric and plug-in hybrid cars growing 65% to some 1.3 million units in 2017.

Global demand for Li-ion rechargeable batteries used in electrified vehicles will continue to grow fast as automotive original equipment manufacturers (OEMs) roll out their electrification strategy. Further strengthening of emission targets, particularly in China and Europe, is pushing OEMs to put more electrified models with longer driving ranges on the road. NMC is the chemistry of choice for batteries used in plug-in hybrid and full electric vehicles and demand for this chemistry is growing rapidly. Umicore is benefiting disproportionately from this trend due to its competitive offer of a wide range of high-quality transportation grade NMC products, a unique ability to scale up fast, and the early qualification with a large number of cell manufacturers and automotive OEMs.

Umicore is expanding production capacity to cater for this buoyant demand and has managed to add somewhat more capacity than originally planned as part of the current € 460 million investment program. The fast ramp-up of the new production lines has been showing benefits in the second half of 2017 and these effects will be more pronounced in 2018.

Revenues for **Cobalt & Specialty Materials** were significantly higher year-on-year driven by volume growth and favourable market conditions across activities, particularly for the refining, recycling and distribution activities. Demand for nickel chemicals, precursors for battery applications and metal carboxylates was also strong. Higher revenues were also recorded for tool materials, partly reflecting the successful integration of the recently acquired activities in France.

Construction work to upgrade and expand the cobalt and nickel refinery in Olen, Belgium is well underway and the facility is expected to be commissioned in the second half of 2018.

Revenues for **Electroplating** increased materially compared to the previous year reflecting volume growth across activities. Sales of precious metal based electrolytes and platinised compounds for electro catalytic applications benefited from strong demand from the portable electronics and electrochemical industries.

Revenues from **Electro-Optics Materials** were stable compared to the previous year, with higher revenues for finished infrared optics and substrates offset by a smaller contribution from the refining and recycling activities. Revenues for germanium tetrachloride remained stable.

Revenues from **Thin Film Products** increased year-on-year reflecting higher demand in both the large area coatings and the optics and electronics activities. On 20 October 2017, Umicore announced the sale of its large area coatings activity to its joint venture partner First Rare Materials Co., Ltd., the parent company of the Vital Group. The optics and electronics activities have been integrated into the Electro-Optic Materials business unit as of January 2018.

RECYCLING

In Recycling, revenues grew by 1% year-on-year and recurring EBIT by 2%.

Revenues for **Precious Metals Refining** were stable, with volume growth and a more supportive metal price environment offset by somewhat lower commercial terms in the second half of the year.

The ramp-up of the additional capacity in Hoboken over the course of the year resulted in an increased throughput rate and higher processed volumes compared to the previous year. The regular maintenance shutdown of the smelter in the last quarter was completed successfully and operations restarted smoothly thereafter.

While the availability of industrial by-products and end-of-life materials was supportive of the capacity ramp-up, the commercial terms were negatively impacted by increasing competition in some segments.

In the beginning of 2017 Umicore announced a series of projects with a view to further enhancing the Hoboken plant's environmental performance. In this respect, the revamping of the lead refinery, which will further reduce the risk of emissions, is progressing well.

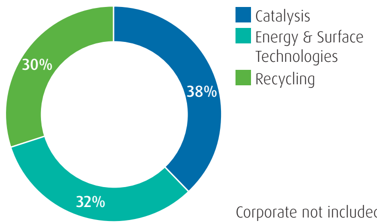
Revenues for **Jewellery & Industrial Metals** were impacted by subdued demand in the product businesses, particularly for silver investment coins. Production at Schöne Edelmetaal, located in the Netherlands, was discontinued in November 2017 and the company will henceforth focus exclusively on the sales and distribution of precious metals

Revenues for **Platinum Engineered Materials** increased slightly on the back of higher demand for Umicore's performance catalysts in a flat market. The construction of the facility in China to serve customers in the display market is on track to be commissioned in the second half of 2018. In line with Umicore's drive for greater organisational simplicity and considering the operational and commercial fit, the business unit was integrated into Jewellery & Industrials Metals as of January 2018.

Revenues for **Technical Materials** were in line with the previous year, reflecting stable revenues for both brazing and contact and power technology materials. Margins increased materially due to the impact of cost reduction measures and a more supportive product mix. The sale of the European Technical Materials business to Saxonia Edelmetalle GmbH was completed on 31 January 2018. Umicore is assessing strategic options for its Technical Materials activities in other regions. These remaining activities have also been integrated into the Jewellery & Industrial Metals business unit as of January 2018.

The contribution from the trading activity in **Precious Metals Management** was higher year-on-year reflecting improved trading conditions. The demand picture for the physical delivery of metals was mixed: investor interest for gold investment bars declined while order levels for industrial metals were higher.

RECURRING EBIT PER BUSINESS GROUP



Corporate not included.

CORPORATE

The increase in corporate costs includes one-off project costs related to acquisitions and divestitures.

Revenues for **Element Six Abrasives** increased materially compared to the previous year reflecting primarily improved market conditions and market share gains for its oil and gas drilling products as well as its precision tooling products used in automotive and aerospace applications. The impact of previously implemented cost reduction and efficiency measures had a further positive effect on earnings.

Economic review

DISCONTINUED ACTIVITIES

Umicore completed the sale of Building Products to Fedrus International effective 29 September 2017. The activities contributed 9 months in 2017.

NON-RECURRING ITEMS

Non-recurring items had a negative impact of € 46 million on EBIT. Restructuring charges accounted for € 20 million and were primarily related to the sale of Thin Film Products large area coatings activity and the closure of its production site in Providence as well as the discontinuation of production activities at Schöne Edelmetaal in the business unit Jewellery & Industrial Metals. Other items consisted of a € 13 million capital loss on the sale of Building Products (no depreciation charges on its assets were recognized as from the second half of 2015 in accordance with IFRS 5), an impairment of Umicore's shareholding in Nyrstar of € 7 million and environmental provision charges of € 7 million. The impact of non-recurring charges on the net result (Group share) amounted to € 42 million.

FINANCIAL RESULT AND TAXATION

Net recurring financial charges totalled € 42 million, up compared to the previous year. Higher net financial debt, the drawdown of long-term private debt and a higher amount of funding in local currency resulted in an increase of net interest costs.

The recurring tax charge for the period amounted to € 87 million corresponding to a recurring effective tax rate of 25.7% (vs 25.0% last year).

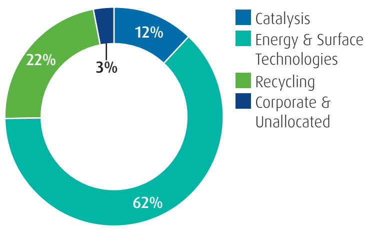
CASH FLOWS

Cash flow from operations was € 218 million, including a € 284 million increase in working capital related to the business expansion, in particular in the Energy & Surface Technologies business group.

Capital expenditures totalled € 365 million, most of which is related to Umicore's growth investments in clean mobility and recycling. The Energy & Surface Technologies business group accounted for over 60% of this amount, reflecting the ongoing investment programmes to increase production capacity in cathode materials.

Acquisitions accounted for a cash out of € 212 million and include the acquisition of the remaining 50% stake in Ordeg and of the stationary emission control and heavy-duty diesel catalyst business of Haldor Topsoe in the Automotive Catalyst business unit as well as the acquisition of Eurotungstene in the Cobalt & Specialty Materials business unit. This cash out was only partly offset by divestment proceeds.

CAPITAL EXPENDITURE PER BUSINESS GROUP



FINANCIAL DEBT

Net financial debt on 31 December 2017 stood at € 840 million, up from € 296 million at the start of the year, largely driven by Umicore's capital expenditures and net working capital spending, as well as the acquisitions in Automotive Catalysts and Cobalt & Specialty Materials. The amount includes € 690 million long-term private debt placements in Europe and the United States. The average net debt to recurring EBITDA ratio corresponded to 93.8%.

Group shareholders' equity stood at € 1,803 million resulting in a net gearing ratio (net debt / net debt + equity) of 31.1%.

Economic review

RESEARCH, DEVELOPMENT & INNOVATION

Umicore is committed to innovation to maintain our competitive lead. R&D expenditure in fully consolidated companies, including discontinued operations, amounted to € 175 million, up from € 156 million in 2016. The year-on-year increase reflects a higher level of R&D in Catalysis and Energy & Surface Technologies. The R&D spend represented 6.0% of revenues and capitalised development costs accounted for € 15 million of the total amount.

A total of 48 new patent families were filed in 2017, compared to 50 in 2016. Most of these concern automotive catalysts and rechargeable battery materials.

Umicore has prioritised its R&D programmes to support our Horizon 2020 ambitions with a focus on the development of innovative materials and processes. 80% of R&D investments go towards clean mobility and recycling.

THE UMICORE SHARE

Umicore's share price was 46% higher at the end of the year compared to the end of 2016, (€ 39.46 vs € 27.08). This was compared to an 11% increase in the Euronext 100 Index of the largest 100 companies quoted on the Euronext stock exchange and an increase of 10% of the BEL20 Index of the largest Belgian companies. This performance won Umicore the award for the best performing stock in the BEL20 index. During the year, we retained our place in the FTSE4Good sustainability index and a number of other sustainability oriented funds.

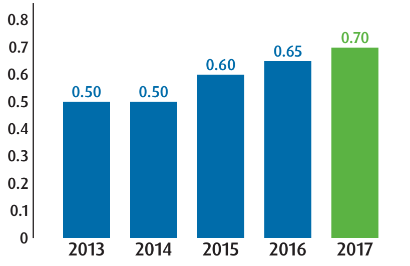
At the end of 2017, 4 investment companies had holdings in Umicore that were above the declaration threshold of 3%. These companies had combined declared holdings of 25.88% Umicore bought back 828,730 own shares in 2017. In the course of the year, 1,597,551 shares were used in the context of exercised stock options. On 31 December 2017 Umicore held 4,505,567 shares in treasury, representing 2.01% of the Group's outstanding shares.

DIVIDEND

Considering the strong results in 2017 and the promising prospects, the board of directors will propose a gross annual dividend of € 0.70 per share at the annual general meeting on 26 April 2018. This represents a payout ratio of 57% based on the recurring EPS of € 1.22 per share and a yield of 2% based on the average share price of 2017. Given the interim dividend of € 0.325 per share paid out on 29 August 2017 and subject to shareholder approval, a gross amount of € 0.375 per share would be paid out on 3 May 2018.

GROSS DIVIDEND

Euros



Value chain and society

SUSTAINABLE SUPPLY

SUSTAINABLE PRODUCTS & SERVICES

KEY RISKS & OPPORTUNITIES

- Regulatory and legal context
- Sustainable and ethical supply
- Technology and substitution
- Market

2020 TARGET

- Secure materials supply and promote our closed loop business offer
- Develop products that create sustainable value for our customers or society

SDGs

8 DECENT WORK AND ECONOMIC GROWTH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

CASE STUDY

Smooth integration of Haldor Topsoe's DeNOx technology

Our acquisition of Haldor Topsoe's heavy-duty diesel (HDD) and stationary catalyst businesses of the Danish company further enhanced Umicore's leadership in products for clean mobility and clean air. The acquisition and integration processes demonstrated a very strong fit between the organisations as both businesses are technology-driven with a strong focus on sustainability and operational excellence.

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Value chain and society

WE AIM TO LEVERAGE OUR SUSTAINABILITY APPROACH IN THE VALUE CHAIN, BOTH UPSTREAM WITH OUR SUPPLIERS AND DOWNSTREAM WITH OUR CUSTOMERS

Umicore's Horizon 2020 objectives reflect a proactive view of our role in the overall value chain. They cover Umicore's presence and impact upstream, through the interaction with suppliers or in our own operations for example, as well as the downstream impact of our products and services.

Upstream, **we have placed greater emphasis on the management of key raw materials supply requirements**. We have also sought to ensure that Umicore's efforts in the field of ethical sourcing can generate a competitive edge for the company. Downstream, **we have a strong portfolio of products and services that offer specific sustainability advantages to our customers and society**.

SUSTAINABLE SUPPLY

For our operations to function, we need raw materials, transportation, energy and other goods and services. Overall, we have more than 10,000 suppliers worldwide to which we paid over € 10.32 billion (including the metal content of raw materials) in 2017. Umicore's Purchasing & Transportation teams worldwide take care of the energy and other goods and services (which is referred to as indirect procurement and accounts for 10% of our spend) while the metal-bearing raw materials are purchased directly by the business units (direct procurement, accounting for 90% of our spend). In the scope of the Horizon 2020 sustainable supply objective, we focus on raw materials as they are the largest share of spending and risks.

Securing adequate volumes of raw materials is an essential factor in our operations and service offering and in meeting our Horizon 2020 growth objectives. The risks and opportunities vary considerably from one business unit to another, and consequently we have a decentralised approach to risk and opportunity management. We are determined to ethically and sustainably secure a competitive edge in our approach to critical raw materials.

Umicore continues to ensure that its operations are certified as conflict-free through various certification schemes such as the "conflict-free smelter" initiative of the London Bullion Market Association (LBMA) and the Responsible Jewellery Council's (RJC) Chain of Custody programme.

Sustainable procurement is a key driver in Umicore's Horizon 2020 aspiration to make sustainability into a competitive edge. After publishing its Sustainable Procurement Framework for Cobalt in 2016, Umicore further optimised the due diligence practices for its cobalt supply chain in 2017, in line with the recommendations for improvement made during the 2016 audit. A significant improvement was Umicore's full alignment with the OECD Due Diligence Guidance For Responsible Supply Chains Of Minerals From Conflict-Affected And High-Risk Areas. The company's yearly reporting on its due diligence activities is not only unique to Umicore, but also reflects a high level of pro-active transparency.

Over the year, Umicore performed due diligence activities for all its purchased cobalt materials used in rechargeable batteries, tools, catalysts and several other applications. Risks that were identified included bribery, health and safety issues, high priority topics for Umicore. When needed, additional information was requested from suppliers. While most cases were closed in the course of the year, some cases still remain open for further assessment.

In order to address some of the most severe risks, Umicore acknowledges the need for collaboration along the supply chain, including its own suppliers and those of its customers. That is why Umicore engages with its industry peers, suppliers and customers in several initiatives and projects including our commitment to developing the Cobalt Industry Risk Assessment Framework within the Cobalt Institute, and our contribution to establishing the World Economic Forum's Global Battery Alliance.

Value chain and society

PwC Bedrijfsrevisoren bcvba/PwC Reviseurs d'Entreprises sccrl provided their independent limited assurance report on Umicore's Compliance Report in respect of the activities undertaken by Umicore during the year 2017 to demonstrate compliance with Umicore's Sustainable Procurement Framework for Cobalt. The compliance report for the reporting year of 2017 can be downloaded here.

More details on the conflict-free status of our operations can be found in the statements section on page 199. Umicore's "Responsible global supply chain of minerals from conflict-affected and high-risk areas" policy can be accessed here.

In 2017, EcoVadis continued to assess indirect procurement streams (i.e. suppliers of energy and other goods and services) for Umicore. The Purchasing & Transportation team developed a "quick scan" based on criteria such as size, geographical location and type of product or service provided and systematically applied the tool to review new suppliers. This tool determines the need for an EcoVadis assessment.

SUSTAINABLE PRODUCTS AND SERVICES

Umicore's Horizon 2020 objective is to generate further competitive advantage through the development of products that have specific sustainability benefits. This has a strong link with our economic objective of being a clear leader in clean mobility and recycling.

Our primary focus in terms of sustainable products and services is on those activities that provide solutions to the megatrends of clean mobility and resource scarcity. We developed an indicator to underline our focus on clean mobility and recycling. In 2017, the revenues of those activities that deliver products or services that are directly linked to one of these two megatrends was 64.6% of 2017 Group revenues, up from 62% in 2016. The increase is the result of higher activity both in recycling and clean mobility. As we work towards the Horizon 2020 goals and bring even more focus to our business, we expect this percentage to continue to increase. It should be noted that many of the materials and services making up the remaining 35.4% of revenues provide answers to specific societal needs such as improved connectivity (materials for high quality glass, displays) or reduced energy consumption (materials for use in energy-efficient lighting such as LEDs).

See more about our efforts in this area, including our approach to international regulatory compliance (i.e. REACH) on pages 197 to 203.

"We are determined to ethically and sustainably secure a competitive edge in our approach to critical raw materials."

Eco-efficiency

EFFICIENT OPERATIONS

KEY RISKS & OPPORTUNITIES

- Regulatory and legal context
- Technology and substitution

2020 TARGET

- Increase value through efficient use of metals, energy and other substances

SDGs

CASE STUDY

Environment as a catalyst for improvement

We systematically review processes and behaviour in Hoboken, but we were surprised by increased levels of lead in blood of a small number of children when we renovated our lead refinery roof. We immediately mobilised the entire factory to identify improvement opportunities and average concentration of lead in fine dust (PM10) has once again decreased to acceptable levels. We are working hard toward further improvements with our research department and external consultants.

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Eco-efficiency

WE AIM TO OPTIMISE THE SUSTAINABILITY PERFORMANCE OF OUR OWN OPERATIONS, FOCUSING ON ENERGY EFFICIENCY

As part of our Horizon 2020 objectives, we continue to pursue selective eco-efficiency initiatives in business units and sites where these can generate compelling value and a competitive edge, for example through reduced costs or a strengthened license to operate.

ENERGY EFFICIENCY

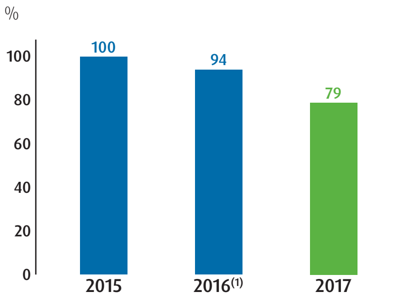
While we already play a key role in the transition to a low-carbon society, for example through our materials for rechargeable batteries for electrified transport, we focus in our own operations on achieving further energy efficiency.

In the scope of Horizon 2020, greater emphasis is placed on sites that are contributing the most to Umicore's total energy consumption. Monitoring and reporting of the energy consumption continues to be done at all sites. The bigger contributors are additionally encouraged to develop, and required to report on, energy efficiency projects.

In 2017, 23 sites accounted for 95% of the Group's energy consumption. At these sites, 38 energy efficiency projects were implemented over the course of the year. By the end of the year, Umicore had achieved a 21% reduction in energy consumption compared to the 2015 benchmark year, correcting for production intensity. This result is the combination of improvements in productivity and the implementation of energy efficiency projects. The total CO_2e emissions in absolute numbers reduced by 4% in comparison with 2016, a combination of a significant increase in activity levels at some sites and the divestment of other sites. For more, see pages 176 to 179.

Several Umicore sites have implemented the ISO 50001 energy efficiency standard and the two largest sites in Belgium have been part of the energy efficiency covenant with the Flemish government since 2004.

NORMALISED ENERGY CONSUMPTION



(1) Baseline 2015 in relation to 2016 was 6,664 TJ, leading to a reduction of 6% in 2016 in comparison with 2015.

METAL EMISSIONS

For many years, as part of our environmental management approach, we have monitored and taken steps to reduce the impact of metals emissions on the environment – both to water and air. Each of the different metals that we emit has a very different level of potential toxicity for the environment and human health. For this reason, we focus on reducing the impact of our emissions.

A specific methodology is used to establish the environmental impact of metals both to air and to water. For air emissions, we have been inspired by the workplace threshold limit values of the American Conference of Government and Industry Hygienists (ACGIH) benchmarks to calculate impact factors as they relate to human health. For water emissions, impact factors are based on the predicted no-effect concentrations (PNEC) that are used, among others, in the EU's REACH regulation.

The aim for 2020 is to reduce metal emissions impacts while considering growing volumes of production. Reporting focuses on sites that contribute to 95% of the emissions expressed in impact and given their activity level. Monitoring continues at all sites. Over 95% of the impact of metal emissions to water and air is the result of production activities at fewer than 10 sites. This clearly indicates that most of our sites do not have a significant metal emissions impact.

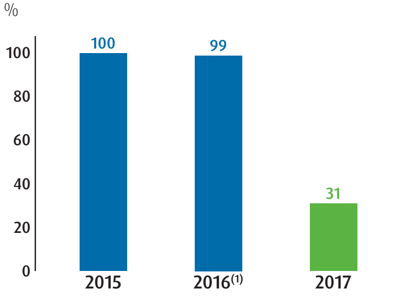
METAL EMISSIONS TO WATER

Compared to 2015, after correction for activity levels, the impact of emissions to water fell by 69%, largely due to the increased efficiency of the wastewater treatment facility at our Hoboken site.

METAL EMISSIONS TO AIR

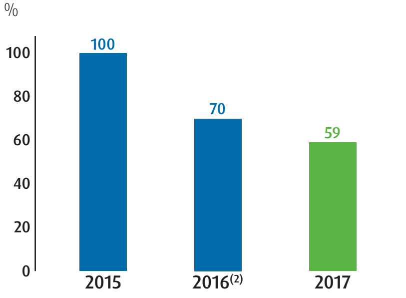
Regarding impact of metal emissions to air, considering activity levels, we achieved a reduction of 41% in 2017 compared to 2015, despite an increase in load, mainly due to improved filter and process efficiency with a focus on metals with high impact.

METAL EMISSION REDUCTION PERFORMANCE (TO WATER)



(1) Baseline 2015 in relation to 2016 was 343,649, leading to a reduction of 1% in 2016 in comparison with 2015

METAL EMISSION REDUCTION PERFORMANCE (TO AIR)



(2) Baseline 2015 in relation to 2016 was 123,831, leading to a reduction of 30% in 2016 in comparison with 2015.

Great place to work

HEALTH

SAFETY

PEOPLE ENGAGEMENT

KEY RISKS & OPPORTUNITIES

- Talent attraction and retention

2020 TARGET

- Become a zero-accident workplace
- Reduce employee exposure to specific metals
- Further improve people engagement with specific focus on talent attraction & retention, diversity management and employability

SDGs

4 QUALITY EDUCATION

5 GENDER EQUALITY

CASE STUDY

Improving gender diversity in senior management

The bottom-up initiative 'Focus on Women' was started by six female managers. Combined with our Coaching Circles – coaching, training, mentoring, and networking for female leadership – it seeks to increase awareness about the huge pool of female talent and to inspire female colleagues. Gender diversity is a win-win for Umicore.

VISIT ANNUALREPORT.UMICORE.COM

Great place to work

THE LONG-TERM SUCCESS OF UMICORE DEPENDS ON OUR BEING A SAFE, HEALTHY AND ENGAGING PLACE TO WORK

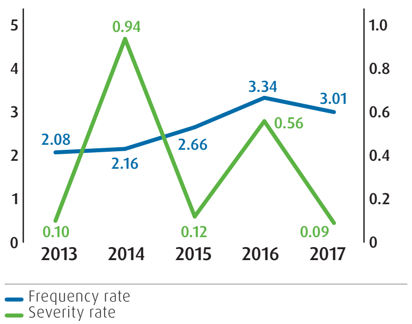
ZERO ACCIDENTS

As part of the Horizon 2020 environmental and social objectives, **Umicore aims to be a great place to work** and all business units are expected to contribute. The priority continues to be driving towards zero accidents and reaching the occupational metals exposure target of zero excess readings.

In terms of year-on-year safety performance, a total number of 51 lost time accidents was recorded in 2017, compared to 59 in 2016. This resulted in a frequency rate of 3.01, down from 3.34 in 2016, and in a severity rate of 0.09, down from 0.56 in 2016 and 0.12 in 2015. While these results are far from satisfactory, the percentage of sites that operated with no lost-time accidents remained high at 84%, as in 2016. Despite the slight decrease in accidents, Umicore feels there is no real change in performance. To address this, significant changes are being made to improve safety, such as importing best practices from sites performing well and creating a change agent position for the cultural management of safety in Hoboken, Belgium.

In 2017, Umicore's Group-wide process safety project was finalised. Process safety has become a structural Group EHS management activity. New initiatives in this context are the full integration of process safety into the EHS compliance audit program and the development of a dedicated 3-day HAZOP leader training, with first training sessions already given in Brazil and Belgium. In addition, Group-wide leading and lagging process safety indicators have been defined for future reporting.

LOST TIME ACCIDENTS



OCCUPATIONAL EXPOSURE

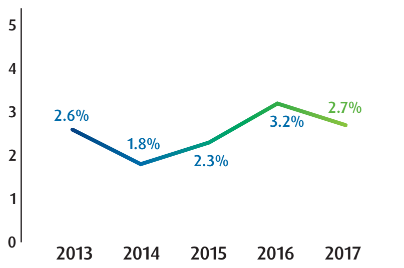
Umicore makes continuous efforts to eliminate occupational-related illness and to promote wellbeing in the workplace. The main occupational health risks are related to exposure to hazardous substances and physical hazards (mainly noise).

Umicore is leading the industry by setting voluntary, science-based targets for potentially hazardous exposure that are more stringent than legal requirements, where they exist. All employees with a potential workplace exposure to any of the target metals (arsenic, cadmium, cobalt, indium, nickel, lead and platinum salts) or other metals are monitored by an occupational health programme. The Horizon 2020 objective for occupational exposure is to reduce to zero the number of individual readings that indicate an exposure for an employee that is higher than the internal target levels. While these excess readings do not necessarily indicate a risk for the person concerned, they are important indicators of recent or lifetime exposure and are used as the basis for further improvements on specific sites.

In 2017, a total of 5,389 biological samples were taken from employees with occupational exposure to at least one of the metals mentioned above (platinum salts excluded). 145 readings showed a result in excess of the internal target value, reducing the total excess rate to 2.7% in 2017 from 3.2% in 2016. All occupationally exposed employees are regularly monitored by an occupational health physician.

Great place to work

EXPOSURE RATIO ‘ALL BIOMARKERS AGGREGATED’



PEOPLE ENGAGEMENT

Horizon 2020 is designed to consider the evolution of Umicore, the labour market and societal expectations. Our objectives are centred on talent management, diversity and employability – three aspects that will have the greatest impact on reaching Horizon 2020 goals.

TALENT MANAGEMENT

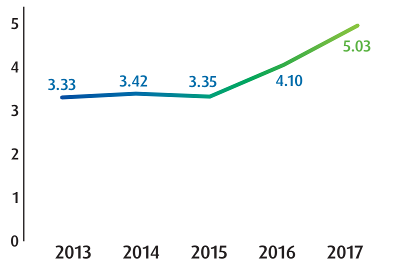
Talent management involves finding and retaining the right people at all levels of the organisation and in a wide variety of functions. These can range from equipment operators to laboratory analysts and from office staff to production engineers. For Umicore the main drivers are linked to the Horizon 2020 growth ambitions in the sectors and geographical areas where we are active.

Attracting and retaining talent is a challenge in Asia – the region where much of Umicore’s growth is expected in the coming years. The Asian labour markets tend to be much more fluid and competitive with higher turnover rates.

In the course of 2017, Umicore recruited about 10% of its total workforce. We estimate that a little less than half of these hires are linked to growth and a little over half are to replace retiring employees and voluntary leavers.

As was the case in previous years, significant regional differences can be observed, with Asia Pacific reporting the highest turnover rate at 10.94%. This is not unique to Umicore and is due to a highly competitive and fluid labour market in the region. In the last two years the percentage of voluntary leavers increased and is somewhat more pronounced in our newer sites, demonstrating the challenge in attracting and retaining the right people in these growth areas. It is worth noting that the average service record at Umicore is 13 years.

VOLUNTARY LEAVERS RATIO



It is of key importance that Umicore is able to attract, develop and retain high calibre leaders by offering attractive and challenging leadership roles, supported by suitable development opportunities.

Umicore conducts a Talent Review of its managers every 2 years. In 2017, over 1,700 employees underwent performance and potential growth assessments, with feedback provided to each manager to develop a dialogue on talent development for access to different assignments and mobility opportunities. The outcome of this talent review is used to feed leadership and development programmes that, in time, can fill the internal pipeline to senior management.

Great place to work

The **Junior Management Programme** (JUMP) is offered to a selected group of junior managers using a "twin-coaching" format, bringing together two participants from different regions and business units, but within the same function family, to develop international thinking, shadow best practices and provide exposure to other business units.

Leading for Excellence (L4E) is offered to a selected group of managers in the Asia Pacific region to drive performance in the region by fostering collaboration and engagement across sites and sharpening leadership skills.

Entrepreneurs for Tomorrow (E4T) is offered to a selected group of mid- to senior managers to develop corporate culture with highly competent managers and promote cross-functional integration within Umicore.

The **Strategic Leadership Programme** is offered to a selected group of senior managers, organised in collaboration with INSEAD. Participants move from exploration of the economic 'macro-environment', through doing business in Asia, to the challenges of creating an agile strategy and an aligned organisation, and developing their personal leadership style.

In addition, Umicore provides managers with a training curriculum aligned across all regions. Other initiatives to promote career development within Umicore include:

- The **Coaching Circles** training programme for female managers in Belgium that offers a combination of mentoring, coaching, training and networking. This programme was developed by the Focus on Women platform, in support of Umicore's diversity and inclusion policy. The purpose is to make women more aware of their capacities and stimulate them to actively take their career into their own hands. In 2017, 20 managers participated in the programme. It will be repeated in 2018 and extended to Germany.

- An internal online tool making all vacancies accessible to current employees, thereby promoting greater possibilities for internal mobility. In 2017, the first full year of use, over half of all vacancies filled were handled via our global recruitment tool.

Training at Umicore encompasses traditional classroom-type modules, e-learning, as well as on-the-job instruction. In 2017, the average training hours per employee reached 45.33 hours. This is an increase from 2016 and a return towards the average number of the previous years. This increase is partially attributed to higher training efforts for the sites that are expanding and that need to make extra onboarding efforts for newly hired employees.

Data shows that managers' training hours (38.54 hours) are lower than for other employees (46.44 hours). This reflects the strong efforts devoted to on-the-job training for newly hired operators.

DIVERSITY

Umicore seeks to benefit as much as possible from diversity, for example in gender, culture and ethnicity. **Umicore believes that more diverse management teams improve the quality of decision-making.**

Umicore developed a group policy on diversity over the course of 2017. The purpose of this policy is to support an inclusive work culture that offers equal opportunities, leading to a high level of employee engagement for all employees, irrespective of their diverse backgrounds. Diversity includes gender, religion, race, national or ethnic origin, cultural background, social group, disability, sexual orientation, marital status, age or political opinion.

Umicore is especially seeking broader cultural representation in its management teams. Currently, 18.05% of the top 130 management positions in Umicore are filled by non-Europeans. Considering that 51% of our revenues are generated outside Europe – a figure that is likely to grow in the coming years

Great place to work

– we decided to act to ensure that non-Europeans are better represented in our senior management. A better balance in this regard will enable us to make business decisions that are better aligned with the markets we serve. While we have chosen not to implement any specific target we will report annually on the evolution of this metric.

Women are underrepresented at senior management level at Umicore. While this can be partly ascribed to the fact that chemical companies tend to attract fewer women (only 21.92% of Umicore's total workforce is female), it is evident that more needs to be done to improve the career prospects for talented women within Umicore. One indicator indicates that we are heading in the right direction. The percentage of women managers has shown a steady increase from 18.65% in 2010 to 22.37% in 2017. The percentage of women in 'business operations' management functions increased from 14.27% in 2016 to 15.55% in 2017. These are the functions that tend to provide the most candidates for all senior leadership positions. In 2017, women were 6.77% of senior management. We have set the ambition to reach 15% of women in senior management functions by 2020.

EMPLOYABILITY

We seek to ensure career-long learning and development opportunities for our employees and to promote the transferability of skills and knowledge across Umicore.

A key strand within the theme of employability is to seek to address the societal trend that people work longer before retiring, particularly in Europe. Umicore wants to ensure that people who are working well into their sixties are provided with suitable, motivating and rewarding work and can transfer their skills and knowledge to younger colleagues. This is accomplished by training, maintaining their mental flexibility to carry out new tasks, managing work-life issues, and providing support in the transition from employee to retiree.

OTHER RELEVANT DEVELOPMENTS

In 2017, Umicore received Top Employer recognition for its sites in Belgium and Pforzheim, Germany, and maintained its "Beruf und Familie" certification in Hanau und Rheinfelden, Germany.

Umicore also conducted site visits as part of the Global Framework Agreement on Sustainable Development between Umicore and the IndustriALL Global Union. This agreement covers the areas of human rights, working conditions and environment.

top EMPLOYER BELGIUM 2018
CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

Managing risk effectively

WE TAKE A BALANCED APPROACH TO MANAGING RISK AND SEIZING OPPORTUNITIES TO DELIVER ON OUR STRATEGIC GOALS

The aim of our risk management system is to enable the company to identify risks in a proactive and dynamic way; and manage or mitigate risks to an acceptable level wherever possible.

BUSINESS UNITS

Carry out a risk scan to identify all significant risks (financial and non-financial)

Detail each risk on an "uncertainty sheet" outlining potential impact, likelihood, status of management action or mitigation, and ownership

Report bottom up to the Executive Committee member responsible for that business unit

EXECUTIVE COMMITTEE MEMBER

Identify, evaluate and mitigate risks

EXECUTIVE COMMITTEE

Successfully exploit business opportunities

Assess market conditions, competitor positioning, technology developments or regulatory changes against the business strategy execution

Manage and mitigate possible business risks

BOARD OF DIRECTORS

Assesses the risk profile of the company within the context of the Company strategy and external factors

Ensure adequate risk management and internal control processes are in place

AUDIT COMMITTEE (ON BEHALF OF THE BOARD)

Monitor and review internal control and risk management system, investigating specific aspects on an ongoing basis

EXTERNAL AUDIT

Independent assurance

Managing risk effectively

Each business unit operates in an environment which carries specific growth expectations and differing degrees of market and technological uncertainty that could impact strategic objectives. As such, the primary source of risk and opportunity identification lies within the business units.

Similarly, each business unit is responsible for mitigation of its own risks. Mitigating actions are systematically reported corresponding to the respective strategic objectives and identified risks. Specific corporate departments are also tasked with managing and mitigating certain risks under the auspices of the Executive Committee. These risks cover Group-wide elements that extend beyond the purview of individual business units. These include environmental risks, financial risks etc.

OUR INTERNAL CONTROL SYSTEM

Internal control mechanisms exist throughout Umicore to provide management with reasonable assurance of our ability to achieve our objectives. They cover:

- Effectiveness and efficiency of operations
- Reliability of financial processes and reporting
- Compliance with laws and regulations; and
- Mitigation of errors and fraud risks

Umicore adopted the COSO framework for its Enterprise Risk Management and has adapted its various controls constituents within its organization and processes. “The Umicore Way” and the “Code of Conduct” are the cornerstones of the Internal Control environment; together with the concept of management by objectives and through the setting of clear roles and responsibilities they establish the operating framework for the company.

Specific internal control mechanisms have been developed by business units at their level of operations, while **shared operational functions and corporate services provide guidance and set controls for cross-organisational activities**. These give rise to specific policies, procedures and charters covering areas such as supply chain management, human resources, information systems, environment, health and safety, legal, corporate security and research and development.

Umicore operates a system of Minimum Internal Control Requirements (MICR) to specifically address the mitigation of financial risks and to enhance the reliability of financial reporting. Umicore’s MICR framework requires all Group entities to comply with a uniform set of internal controls in 12 processes. Within the Internal Control framework, specific attention is paid to the segregation of duties and the definition of clear roles and responsibilities. MICR compliance is monitored by means of self-assessments to be signed off by senior management. The outcome is reported to the Executive Committee and the Audit Committee.

Out of the 12 control cycles 3 cycles (order to cash, treasury and fixed assets) were assessed during 2017 by the 92 control entities currently in scope. Risk assessments and actions taken by local management to mitigate potential internal control weaknesses identified through prior assessments are monitored continuously. The Internal Audit department reviews the compliance assessments during its missions.

Identifying the main issues that could impact our business

WE UNDERSTAND THAT KEY RISKS TO OUR BUSINESS MIGHT ALSO OFFER UNIQUE OPPORTUNITIES FOR US TO GROW AND CREATE VALUE

1 REGULATORY AND LEGAL CONTEXT

STRATEGIC FOCUS AREA

ECONOMIC PERFORMANCE

VALUE CHAIN AND SOCIETY

ECO-EFFICIENCY

CHANGE IN RISK PROFILE

Increase

CHANGE IN OPPORTUNITY PROFILE

Increase

POTENTIAL IMPACT

Umicore is exposed to the evolution of the regulatory environment in the countries or regions in which it operates. Umicore's businesses stand to benefit from certain regulatory trends, notably those regarding more stringent emission controls for vehicles, low carbon mobility and enforced recycling of end-of-life products.

Some regulations, such as environmental or product-related laws, can present operational challenges, higher costs and a potentially uneven competitive environment.

Active management and remediation of risks that have resulted from historical operations is an integral part of the Umicore Way.

The growth in technology driven businesses results in an even greater importance of IP and IP protection-related matters.

CHANGE IN CONTEXT

Worldwide, changes to existing product-related legislation and the introduction of new legislation might impact our business. Although the European REACH regulation is still the most relevant one for Umicore, the Korean-REACH is gaining importance. For more information, see page 202.

The trend towards more stringent emission legislation and targets continued, while new measures on vehicle emissions push industry to innovate in emission control system design, including catalysts and catalytic filters.

In terms of legal risk please refer to the contingencies section (see page 161 for the note F36). This relates primarily to cases brought against Umicore in the domain of cathode materials for rechargeable battery materials.

MEASURES TAKEN BY UMICORE

Umicore manages its historical environmental legacy, ensuring adequate financial provisions that are reviewed twice a year. For more information, see page 149.

To ensure ongoing compliance with environmental legislation at our industrial sites, Umicore has a well-established EHS compliance audit programme and constantly monitors changes in legal requirements where we operate. For more information, see page 182.

Umicore continues to play an active role in informing European legislators of various emission control technologies for both diesel and gasoline powered vehicles, to help legislators make informed decisions about future emission and testing norms.

In 2017, Umicore took steps to ensure its ability to meet the surging demand for cathode materials for rechargeable batteries used in electrified transportation. This involves continued investment on production capacity of cathode materials in China and Korea.

In 2017, as part of regular maintenance, 14 REACH dossiers were updated for reasons that included increasing the tonnage band, replying to ECHA requests and including new information on composition, uses or Chemical Safety Reports. In preparation of the third phase of the EU REACH regulation, 115 new registrations were submitted.

The patent case brought by BASF and Argonne National Laboratory in the United States was settled to the satisfaction of all parties.

Identifying the main issues that could impact our business

2 SUSTAINABLE AND ETHICAL SUPPLY

STRATEGIC FOCUS AREA
ECONOMIC PERFORMANCE
VALUE CHAIN AND SOCIETY

CHANGE IN RISK PROFILE

Increase

CHANGE IN OPPORTUNITY PROFILE

Increase

POTENTIAL IMPACT

Umicore requires certain metals or metal-containing raw materials to manufacture its products and feed its recycling activities. Some of these raw materials are comparatively scarce and require very specific sourcing strategies. Obtaining adequate supplies of these materials is important for the ongoing success and growth of our business.

Some metals are also found in regions facing social challenges. Trading in precious metals and minerals can be used to finance armed conflict, cause human rights abuses, draw upon forced or child labour and support corruption and money laundering. It is important that we ensure that the procurement of 'conflict minerals' is in line with Umicore's values, while providing an advantage to our customers.

Given the scarcity of resources, treating complex materials from above-ground sources, such as industrial residues and "End-of-life" materials, is increasingly important. Our facility in Hoboken is the world's largest and most complex precious metals recycling operation, processing over 200 types of raw material and recovering over 20 different metals.

CHANGE IN CONTEXT

Adopted in 2017, the European Union's Conflict Minerals Regulation will come into full force 1 January 2021. This law aims to drive responsible sourcing of tin, tantalum, tungsten and gold, which are sometimes extracted from conflict regions or mined under abusive conditions, in order to meet international responsible sourcing standards as set by the OECD in the 'Due Diligence Guidance for Responsible Supply Chains from Conflict-Affected and High-Risk Areas.' The conditions in the US Dodd-Frank Wall Street Reform and Consumer Act of 2010 legislation, which covers the same four minerals, will also be met by this new law.

MEASURES TAKEN BY UMICORE

Umicore has implemented policies and measures covering human rights, the right for workers to organise and collective bargaining, equal opportunities and non-discrimination, banning of child labour, banning of forced labour, consistent with International Labour Organisation (ILO) standards. These commitments are supported through a Global Framework Agreement on Sustainable Development with IndustriALL Global Union.

In addition to existing policies and charters such as the Umicore Code of Conduct, Human Rights Policy and Sustainable Procurement Charter, Umicore also has a specific policy for "Responsible global supply chain of minerals from conflict-affected and high-risk areas".

Umicore's Sustainable Procurement Framework for Cobalt, which covers Umicore's cobalt purchases worldwide, was adapted in 2017 to be fully aligned with the OECD 'Due Diligence Guidance for Responsible Supply Chains from Conflict-Affected and High-Risk Areas'.

Umicore is growing its capacity to cater to rising recycling demand. Umicore's recycling not only offers environmental and ethical sourcing benefits, but also increased resource security.

Increasingly Umicore customers request a guarantee and the necessary documentation to assure the conflict-free status of our products. The Umicore internal 'Metals and Minerals' working group, which includes procurement and raw material experts, streamlines and optimises the efforts required for this growing customer demand by sharing best practices.

Identifying the main issues that could impact our business

3 TECHNOLOGY AND SUBSTITUTION

STRATEGIC FOCUS AREA
ECONOMIC PERFORMANCE
VALUE CHAIN AND SOCIETY
ECO-EFFICIENCY

CHANGE IN RISK PROFILE
No change

CHANGE IN OPPORTUNITY PROFILE
Increase

POTENTIAL IMPACT

Umicore is a materials technology group with a strong focus on the development of innovative materials and processes. The choice and development of these technologies represents the single biggest opportunity and risk for Umicore.

Achieving the best cost-performance balance for materials is a priority for Umicore and its customers. There is always a risk that customers will seek alternative materials for their products should those of Umicore not provide this optimum balance. The risk is especially present in businesses producing materials containing expensive metals (especially those with historically volatile pricing characteristics).

CHANGE IN CONTEXT

Trends in rechargeable battery materials for automotive applications have underscored that NMC materials with increasing Nickel content are the technology of choice for customers in current and upcoming electrified vehicle platforms.

In vehicle emission control, regulatory debates have reinforced the need to have a broad spectrum of technologies available for both gasoline and diesel applications.

MEASURES TAKEN BY UMICORE

Every year, the Executive Committee identifies innovation projects ("Top 10") which are key to achieving Horizon 2020 (and beyond) growth ambitions and cover product and process developments. A selection of these projects is reviewed during the year either through dedicated technology reviews or as part of strategic business reviews.

Previous years' R&D investments have brought great success and created a space to shift R&D positioning. Umicore invested selectively in new fields relevant to core activities in 2017. Overall spend was equivalent to 6% of revenues.

Umicore patents disruptive technologies. In 2017, Umicore registered 48 new patent families.

For more information on Umicore's approach to managing its innovation and technology portfolio see pages 64-65.

Identifying the main issues that could impact our business

4 MARKET

STRATEGIC FOCUS AREA
ECONOMIC PERFORMANCE
VALUE CHAIN AND SOCIETY

CHANGE IN RISK PROFILE

Change in perimeter
(see Change in context)

CHANGE IN OPPORTUNITY PROFILE

Increase

POTENTIAL IMPACT

The main end markets served by Umicore are automotive (for clean mobility products) and non-ferrous metal mining and refining industries (recycling activities). Umicore is sensitive to any major growth or global reduction in activity levels in these sectors.

Activity levels in other areas of the economy such as consumer electronics are also relevant to Umicore as are the levels of activity in specific industries or with specific customers where Umicore provides closed-loop recycling services.

In the longer term, market disruptions such as new models of consumption have the possibility to significantly alter the landscape of the markets that Umicore serves, posing risks as well as creating new opportunities.

CHANGE IN CONTEXT

Overall, the global economic outlook remained stable in 2017. Market forecasts continue to point to a supportive economy with global growth expected to be driven by Asian markets, in particular China.

The automotive industry performed well with higher levels of demand in several regions and a remarkable acceleration in demand for electrified vehicles.

In all important markets, more stringent vehicle emission legislation has come into force or has been announced for the coming years.

The risk profile of Umicore reflects a growing exposure to the automotive industry and, from a geographical point of view, to Asia, in both cases driven by the fast growing sales of cathode materials for use in electrified vehicles. Following the divestment of its Building Products business, Umicore is no longer materially exposed to the construction industry.

The early positioning of Umicore in the market of cathode materials for rechargeable batteries and qualification for several automotive platforms mean that Umicore should benefit from the accelerating demand for electrified vehicles. This trend may be amplified by the decreasing sales of diesel-engine passenger cars.

MEASURES TAKEN BY UMICORE

Umicore's increasing presence in fast-growing market segments that are driven by global megatrends meant that our economic performance in 2017 again far outstripped that of the economy in general and that of most of our competitors.

The Executive Committee undertook a review of potentially disruptive market and technology trends in automotive and discussed its findings with the Board of Directors.

Identifying the main issues that could impact our business

5 METAL PRICE

STRATEGIC FOCUS AREA
ECONOMIC PERFORMANCE

CHANGE IN RISK PROFILE

→

No change

CHANGE IN OPPORTUNITY PROFILE

→

No change

POTENTIAL IMPACT

Umicore's earnings are exposed to risks relating to the prices of the metals which we process or recycle. The structural metal price risk relates mainly to the impact that metal prices have on the surplus metals recovered from materials supplied for recycling. It concerns platinum, palladium, rhodium, gold and silver as well as a wide range of base and specialty metals. For some metals quoted on futures markets, Umicore hedges a proportion of its forward metal exposure to cover part of the future price risks.

For more information on the structural risk, as well as on the transactional and inventory risk related to the metal prices, see pages 107-109.

CHANGE IN CONTEXT

Prices for precious metals strengthened in 2017. Prices for gold, palladium and rhodium increased significantly, while silver and platinum prices faced a volatile environment in which gains were often completely offset by subsequent losses, leaving a small increase over the full year cycle.

MEASURES TAKEN BY UMICORE

Over the course of 2017, Umicore entered into forward contracts securing a portion of its structural price exposure for certain precious metals and base metals in 2018 and 2019, thereby increasing earnings predictability.

Identifying the main issues that could impact our business

6 TALENT ATTRACTION AND RETENTION

STRATEGIC FOCUS AREA
GREAT PLACE TO WORK

CHANGE IN RISK PROFILE

Increase

CHANGE IN OPPORTUNITY PROFILE

Increase

POTENTIAL IMPACT
The attraction and retention of skilled people are important factors in enabling Umicore to fulfil its strategic ambitions and to build further expertise, knowledge and capabilities in the business. Being unable to do so would compromise our ability to deliver on our goals.

Horizon 2020 is predicated on disproportionate growth for Umicore in Asia – a region characterised by highly competitive and fluid labour markets. Umicore's challenge is to attract and retain talent in the region on a sufficient scale and at an appropriate pace.

CHANGE IN CONTEXT
Our accelerated expansion combined with competitive labour markets have created even greater recruitment needs.

MEASURES TAKEN BY UMICORE
To enhance our recruitment pool, we developed a global employer brand with a special focus on challenging labour markets in Europe and Asia. This branding supports our specific recruitment initiatives.

In 2017, Umicore developed a group policy on diversity to support an inclusive work culture that offers equal opportunities, leading to a high level of employee engagement for all employees, irrespective of their diverse backgrounds.

Standing left to right: Eric Meurice, Marc Grynberg, Rudi Thomaes, Françoise Chombar and Colin Hall
Sitting left to right: Mark Garrett, Liat Ben-Zur, Thomas Leysen, Ines Kolmsee and Gérard Lamarche

THOMAS LEYSEN

57 | Belgian

- Chairman, Non-Executive Director
- First appointment: 19 November 2008 (Director since 10 May 2000)
- Expiry of mandate: Annual general meeting of 2018
- Chair, Nomination & Remuneration Committee (19 November 2008)

EXPERIENCE

Thomas Leysen became Chairman of Umicore in November 2008 after serving as Chief Executive Officer of Umicore since 2000. He has been Chairman of the board of KBC, a banking and insurance group, since October 2011.

CURRENT EXTERNAL APPOINTMENTS

- Chair, KBC Group, Belgium
- Chair, Mediahuis, a Belgian media company
- Chair, King Baudouin Foundation, Belgium
- Chair, The Shift, the leading Belgian CSR network

MARC GRYNBERG

52 | Belgian

- Chief Executive Officer, Executive Director
- First appointment: 19 November 2008
- Expiry of mandate: Annual general meeting of 2018
- Chief Executive Officer (19 November 2008)

EXPERIENCE

Marc Grynberg was appointed Chief Executive Officer of Umicore in November 2008 after heading the Automotive Catalysts business unit from 2006 to 2008, and serving as CFO of Umicore from 2000 until 2006. He joined Umicore in 1996 as Group Controller. Prior to joining Umicore, Marc worked for DuPont de Nemours in Brussels and Geneva. He holds a Commercial Engineering degree from Solvay Brussels School of Economics and Management.

CURRENT EXTERNAL APPOINTMENTS

- Non-Executive Director, Nexans SA, France

INES KOLMSEE

47 | German

- Independent, Non-Executive Director
- First appointment: 26 April 2011
- Expiry of mandate: Annual general meeting of 2017
- Chair, Audit Committee (28 April 2015 – member since 26 April 2011)

EXPERIENCE

Ines Kolmsee has been Chief Executive Officer of Services & Solutions at Aperam since October 2017. She previously served as CEO of SKW Stahl-Metallurgie Group, a specialty chemicals company with operations worldwide, COO and CTO at German utility EWE AG and CFO at Arques Industries AG. Ines holds a Master's degrees in Process and Energy Engineering and in Industrial Engineering from Technische Universität Berlin and Ecole nationale supérieure des Mines de St Etienne, respectively, and a Master of Business Administration from the INSEAD Business School.

CURRENT EXTERNAL APPOINTMENTS

- Member, Supervisory Board, Suez Environnement SA, France

RUDI THOMAES

65 | Belgian

- Independent, Non-Executive Director
- First appointment: 24 April 2012
- Expiry of mandate: Annual general meeting of 2018
- Member, Audit Committee (30 April 2013)
- Member, Nomination & Remuneration Committee (24 April 2012)

EXPERIENCE

Rudi Thomaes was the Chief Executive Officer of the Belgian employers' federation (FEB-VBO) and Regent of the National Bank of Belgium (2004-2012). He previously served as Managing Director and Chair of the management committee of Alcatel Bell NV. He holds Bachelor of Laws and Master in Law degrees from the University of Antwerp.

CURRENT EXTERNAL APPOINTMENTS

- Honorary President, International Chamber of Commerce, Belgian Chapter
- Chair, Restore NV, Belgium
- Chair, Armonea NV, Belgium

ERIC MEURICE

60 | French

- Independent, Non-Executive Director
- First appointment: 28 April 2015
- Expiry of mandate: Annual general meeting of 2018

EXPERIENCE

Eric Meurice was formerly President and Chief Executive Officer of Netherlands-based ASML Holding, a major provider of advanced technology systems for the semiconductor industry. He was previously EVP in charge of Thomson Multimedia TV Division and held senior positions in several technology groups such as Intel, ITT, and Dell Computer. He holds Master's degrees in Economics and Mechanical Engineering from the Sorbonne and Ecole Centrale de Paris, respectively, and a Master of Business Administration from Stanford University's Graduate School of Business.

CURRENT EXTERNAL APPOINTMENTS

- Non-Executive Director, NXP Semiconductors, The Netherlands
- Non-Executive Director, IPG Photonics, USA

MARK GARRETT

54 | Australian/Swiss

- Independent, Non-Executive Director
- First appointment: 28 April 2015
- Expiry of mandate: Annual general meeting of 2018
- Member, Audit Committee (28 April 2015)
- Member, Nomination and Remuneration Committees (29 July 2017)

EXPERIENCE

Mark Garrett has been Chief Executive Officer and Chair of the Borealis AG Executive Board since 2007, a leading provider of innovative polyolefins, base chemicals and fertilizers, based in Austria. Prior to joining Borealis, he built an extensive career in the chemical industry working with companies such as Ciba-Geigy and DuPont. Mark graduated in Economics and Applied Information Systems from the University of Melbourne and the Royal Melbourne Institute of Technology, respectively.

CURRENT EXTERNAL APPOINTMENTS

- CEO and Chair, Executive Board, Borealis AG, Austria
- Member, Board of Directors, Abu Dhabi Polymers Company Ltd., UAE
- Member, Board of Directors, NOVA Chemicals, Canada
- Member, Board of Directors, Axalta Coating System, USA

FRANÇOISE CHOMBAR

55 | Belgian

- Independent, Non-Executive Director
- First appointment: 26 April 2016
- Expiry of mandate: Annual general meeting of 2019

EXPERIENCE

Françoise Chombar is co-Founder, Chief Executive Officer and Managing Director of Melexis, a producer of integrated semiconductor sensor, driver and communication circuits for automotive applications. She served previously as planning manager at Elmos GmbH and operations manager and director at several companies within the Elex group. Françoise was a mentor in the Belgian women's network Sofia for 17 years and is committed to STEM and gender balance advocacy. She holds a Master's degree in Dutch, English and Spanish Interpretation and an Honorary Ambassadorship for Applied Language Studies from Ghent University.

CURRENT EXTERNAL APPOINTMENTS

- CEO and Director, Melexis, Belgium
- President, Flemish STEM Platform, an independent advisory group to the government of Flanders

LIAT BEN-ZUR

41 | American

- Independent, non-executive Director
- First appointment: 25 April 2017
- Expiration of mandate: Annual general meeting of 2020

EXPERIENCE

Liat Ben-Zur is Senior Vice President and Digital Technology Leader at Royal Philips where she is responsible for driving the connectivity and digital strategy. Prior to joining Philips in 2014, she served in several leadership positions at Qualcomm, a US wireless telecommunications company, and was co-founder and Chairwoman of the AllSeen Alliance, a consortium for an open source, common language for the Internet of Things. Liat holds a Bachelor's degree in electrical engineering from University of California Davis and a Master of Business Administration from UCLA's Anderson School of Management.

COLIN HALL

47 | American

- Non-Executive Director
- First appointment: 26 April 2016
- Expiry of mandate: Annual general meeting of 2019
- Member, Audit Committee (29 July 2017)

EXPERIENCE

Colin Hall has been the Head of Investments at Groupe Bruxelles Lambert (GBL) since 2016. He built an extensive career, starting in the merchant banking group of Morgan Stanley, then in New York and London at the Rhône Group, a private equity firm, and later co-founding a hedge fund sponsored by Tiger Management. In 2012, he became CEO of Sienna Capital, a 100% subsidiary of GBL that manages alternative investments (private equity, credit and specific thematic funds). Colin holds a Bachelor's degree from Amherst College and a Master of Business Administration from Stanford University's Graduate School of Business.

CURRENT EXTERNAL APPOINTMENTS

- Director and Member, Audit Committee, Imerys SA, France
- Director, Supervisory Board, Kartesia Management, Luxembourg
- Director, Ergon Capital Partners, Belgium
- Director, Parques Reunidos, Spain

GÉRARD LAMARCHE

56 | Belgian

- Non-Executive Director
- First appointment: 25 April 2017
- Expiration of mandate: Annual general meeting of 2020

EXPERIENCE

Gérard Lamarche has been Co-Chief Executive Officer of Groupe Bruxelles Lambert (GBL) since 2012, overseeing the transformation of its investment strategy and portfolio. He built an extensive career, starting at Deloitte Haskins & Sells in Belgium, then Société Générale de Belgique as Investment Manager, Controller and Advisor to the Strategy and Planning Department, and Suez, as Secretary of the Executive Committee, then SVP in charge of Planning, Control and Accounting and CFO. Gérard holds an Economic Sciences degree from the University of Louvain-la-Neuve and a Master of Business Administration from the INSEAD Business School.

CURRENT EXTERNAL APPOINTMENTS

- Non-Executive Director, LafargeHolcim, France
- Non-Executive Director, Total, France
- Non-Executive Director, SGS, France
- General Managing Director, NALCO, USA

KAREL VINCK

Belgian

- Honorary Chairman

From left to right: Pascal Reymondet, Géraldine Nolens, Marc Grynberg, Marc Van Sande, Stephan Csoma, Filip Platteeuw and Denis Goffaux

MARC GRYNBERG

52

CHIEF EXECUTIVE OFFICER

Marc Grynberg was appointed Chief Executive Officer in November 2008 after heading the Automotive Catalysts business unit from 2006 to 2008, and serving as CFO of Umicore from 2000 until 2006. He joined Umicore in 1996 as Group Controller. Prior to joining Umicore, Marc worked for DuPont de Nemours in Brussels and Geneva. He holds a Commercial Engineering degree from Solvay Brussels School of Economics and Management.

He is responsible for Human Resources, Information Systems and Group Communications.

FILIP PLATTEEUW

45

CHIEF FINANCIAL OFFICER

Filip Platteeuw was appointed Chief Financial Officer in November 2012, after serving as VP of Corporate Development from 2010 to 2012. He joined Umicore in 2004 and was instrumental in the Cumerio spin-off in 2005, and then led the project team for the creation of Nyrstar and its successful IPO in 2007. Filip has extensive experience in investment banking, corporate banking and equity research with KBC Bank. He holds Master's degree in Applied Economics and Financial Management from the University of Ghent the Vlerick Management School, respectively.

He is responsible for Corporate Development and Procurement & Transportation.

DENIS GOFFAUX

50

CHIEF TECHNOLOGY OFFICER

Denis Goffaux was appointed Chief Technology Officer in July 2010, after heading the Rechargeable Battery Materials business line and successfully developing the business into a world leader in cathode materials for lithium ion rechargeable batteries. As Country Manager Japan, he laid strong foundations for Umicore to grow its industrial presence and commercial activities in Japan. Denis joined Umicore Research in 1995 and has lived and worked in Belgium, Chile, China and Korea. He holds a degree in mining engineering from the University of Liège.

He is responsible for the Precious Metals Refining business unit and Japan.

PASCAL REYMONDET

58

EXECUTIVE VICE-PRESIDENT CATALYSIS

Pascal Reymondet was appointed Executive Vice-President Catalysis in November 2012, after serving as EVP of Performance Materials from 2010 to 2012 and EVP of Zinc Specialties from 2007 to 2010. He joined the Umicore Executive Committee in 2003 to oversee the Precious Metals Products group. Prior to joining Umicore, Pascal held management positions within the Degussa group. He holds a Master's of Science from Stanford University and an Engineering degree from the Ecole Centrale in Paris.

He is responsible for the Catalysis business group and Germany, North America and India.

MARC VAN SANDE

65

EXECUTIVE VICE-PRESIDENT ENERGY & SURFACE TECHNOLOGIES

Marc Van Sande was appointed Executive Vice-President Energy & Surface Technologies in June 2010, after serving as CTO from 2005 to 2010 and as EVP Advanced Materials from 1999 to 2005. Marc joined Umicore in 1980, and held several positions in research, marketing and production. He holds a doctorate in Physics from the University of Antwerp and a Master of Business Administration from the Antwerp Management School.

He is responsible for the Energy & Surface Technologies business group and China.

STEPHAN CSOMA

53

EXECUTIVE VICE-PRESIDENT RECYCLING

Stephan Csoma was appointed Executive Vice-President Recycling in 2015, after serving as EVP of the former Performance Materials from 2012 to 2015, SVP Government Affairs from 2009 to 2012, and SVP South America from 2005 to 2009. Stephan joined Umicore in 1992 and set up Umicore's first industrial operations in China in the mid-1990s and went on to lead the Zinc Chemicals business unit. He holds degrees in Economics from the UCL University of Louvain and Chinese/Mandarin from Fudan University in Shanghai.

He is responsible for the Recycling business group, Government Affairs, Umicore Marketing Services and South America.

GÉRALDINE NOLENS

46

EXECUTIVE VICE-PRESIDENT

Géraldine Nolens was appointed Chief Counsel for the Group in 2009 and joined the Executive Committee in 2015. She started her career at the international law firm Cleary Gottlieb Steen & Hamilton before joining GDF Suez (now Engie) in 2001, where she was Electrabel's Chief Legal Officer for Southern Europe, France and new European markets. Géraldine's career includes periods working and living in the US, Germany, Italy and Belgium. She studied law in Belgium and Germany before obtaining her Master of Laws at the University of Chicago.

She is Chief Counsel and is responsible for Environment Health & Safety, Corporate Security and Internal Audit.

Key figures

(in millions of Euros unless stated otherwise)	2013	2014	2015	2016	2017
ECONOMIC PERFORMANCE					
Turnover*	9,819.3	8,828.5	10,441.9	11,085.9	**12,277.2**
Revenues (excluding metal)	2,363.4	2,366.5	2,629.0	2,667.5	**2,915.6**
Recurring EBIT	304.0	273.7	330.3	350.7	**410.3**
Return on Capital Employed (ROCE) (in %)	13.6	12.2	13.7	14.6	**15.1**
R&D expenditure	140.6	143.3	144.5	155.9	**175.2**
Capital expenditure	279.6	202.4	240.3	287.3	**365.3**
Recurring EPS (in €/share)	0.98	0.89	1.13	1.07	**1.22**
Gross dividend (in €/share)	0.50	0.50	0.60	0.65	**0.70**
SOCIAL AND ENVIRONMENTAL PERFORMANCE					
Revenues from clean mobility and recycling (in %)	–	–	–	62	**65**
Total donations (in thousands of Euros)	1,612.80	1,409.35	1,219.38	1,289.68	**1,299.34**
CO_2e emissions (scope 1+2) – Market based (in tonne)	690,767	664,568	710,143	662,059	**633,704**
CO_2e emissions (scope 1+2) – Location based (in tonne)	–	–	–	735,065	**663,307**
Energy consumption (in terajoules)	7,557	7,304	7,742	6,737	**6,532**
Workforce (fully consolidated companies)	10,190	10,368	10,429	9,921	**9,769**
Lost Time Accidents (LTA)	35	37	47	59	**51**
LTA frequency rate	2.08	2.16	2.66	3.34	**3.01**
LTA severity rate	0.10	0.94	0.12	0.56	**0.09**
Exposure ratio 'all biomarkers aggregated' (in %)	2.6	1.8	2.3	3.2	**2.7**
Average number of training hours per employee	45.18	45.59	45.06	41.49	**45.33**
Voluntary leavers ratio	3.33	3.42	3.35	4.10	**5.03**

* Including the elimination of the transactions between continued and discontinued operations.

For enquiries and additional information please contact

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umicore
materials for a better life

Governance and statements

Annual Report 2017

Governance and statements

Stakeholder engagement

Umicore is a publicly listed company. As such, we interact with many parties who have an interest in the way we conduct business. The relationship that we foster with these parties or stakeholders has a direct impact on our success.

Stakeholder engagement at Umicore is based on a localised approach whereby all sites are required to identify their respective stakeholders and establish suitable ways of engaging with them. In many cases, such as the dialogue with customers and suppliers, the stakeholder relationships are primarily managed by the business units themselves, in line with our decentralised approach to unit management. The executive committee receives feedback from stakeholders in several ways, ranging from direct feedback from visits to customers, suppliers, employees and investors, to information provided by the business units, departments or workers' representatives during their regular briefings to senior management. Other forms of input include periodic employee survey results.

The Horizon 2020 strategy represents a strong focus on what is of material importance for Umicore in the coming years. The development of the strategy has involved a specific stakeholder approach, described in the materiality assessment process in the next chapter.

Umicore is an active participant in various industry associations through which we engage with policy makers to contribute to a better understanding of industry-related issues. These associations are also important platforms for Umicore to contribute to broader, industry-wide action on sustainable development. On a less formal level, members of our senior management are often called upon or volunteer to participate in public forums to discuss our business strategy and sustainable development approach. Such events provide the opportunity to interact with various groups including business leaders, academics and civil society.

Umicore's main stakeholder groups are highlighted below and have been categorised in broad terms, using generic stakeholder categories that apply to most industrial organisations. Also shown are the nature of the transactions that occur and a brief description of the dialogue between Umicore and the stakeholders.

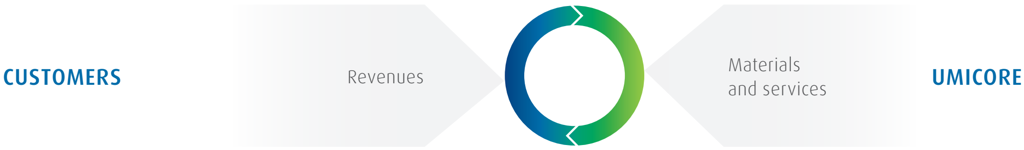
SUPPLIERS

Umicore operates through three business groups on five continents. These business groups not only require materials to make their products but also energy, transportation and a range of other services. Overall, Umicore has over 10,000 suppliers worldwide. These suppliers benefit from our presence as a customer: in 2017, Umicore paid these suppliers € 10.3 billion (including the metal content of raw materials).

Umicore is engaged in a constant dialogue with its suppliers to define technical specifications and to ensure mutually acceptable terms and conditions for continued partnership, such as prompt and uninterrupted delivery of materials/services and timely payment. The business units are responsible for the purchase of raw materials while the corporate Purchasing and Transportation department works to ensure that transportation, energy and other provisioning needs are met.

Our approach is shaped by our Sustainable Procurement Charter. This charter is complemented by specific approaches or frameworks for some critical raw materials. Our Horizon 2020 strategy includes an objective on sustainable supply that builds on the experience gained through our previous objective on sustainable procurement. For information on the level of achievement against this objective see pages 26-27 of this report.

CUSTOMERS



Our ambition is to produce "materials for a better life". Our materials can be found in a wide variety of applications that make day-to-day life more comfortable and help contribute to a cleaner environment.

Umicore has an international customer base, with 51% of 2017 revenues being generated outside Europe.

The business units are responsible for providing support to their customers to improve their understanding of the hazards and risks of any products either on the market or under development. Interaction with customers is ongoing and is managed by the business units. All business units have a customer feedback process through which they periodically gauge the level of customer satisfaction with their products and services. In the most technologically advanced businesses, the relationship with the customer is often closely integrated. Developing advanced products often involves years of research and development work in direct collaboration with such customers.

EMPLOYEES

Umicore employs 9,769 people around the world. We invest significant resources in ensuring our status as an employer of choice in all the regions where we operate. In 2017, Umicore paid a total of € 602 million in salaries and other benefits to the employees of the fully consolidated companies. Social security payments totalled € 99 million.

Umicore is committed not only to providing competitive salaries and working conditions to its employees, but also to providing the necessary occupational and professional training opportunities. Employees are expected to adhere to the principles and policies outlined in The Umicore Way and our Code of Conduct. Open dialogue is promoted within the company with our employees and includes an opinion survey every three years.

Umicore respects the principle of collective bargaining wherever it is requested. While such practice is commonplace in Europe, in other locations collective bargaining mechanisms and trade unions may be less common or face local legal restrictions. Umicore has a sustainable development agreement with the international union IndustriALL on the global implementation of its policies on human rights, equal opportunities, labour conditions, ethical conduct and environmental protection. The agreement allows trade unions to participate constructively in the pursuit of these objectives. A joint monitoring committee composed of both parties oversees the implementation of the agreement.

Supplementary channels of company-wide communication include the intranet and company and business unit newsletters. Umicore operates a Group-wide learning management platform called "MyCampus". This platform also incorporates a social collaboration tool that facilitates knowledge sharing through the company.

SHAREHOLDERS AND INVESTORS

Umicore strives to provide timely and accurate company information to its various shareholders and investors. These communication efforts include worldwide roadshows, site visits, conferences, investor fairs, webcasts and conference calls by management and the investor relations team.

Umicore has a broad base of international shareholders which at the end of 2017 were primarily situated in Europe and North America. For the latest information on the shareholder base please consult our website. During 2017, 22 brokerage firms published equity research notes on Umicore, reflecting the growing and global investor interest in Umicore.

Over the course of 2017, Umicore issued private debt placements with debt investors in Europe and North America. Next to this Umicore has also credit lines with numerous banks, both in Belgium and elsewhere. Dialogue with the banks is primarily the responsibility of the corporate Finance Department although each legal entity within Umicore maintains business relationships with its local banking community.

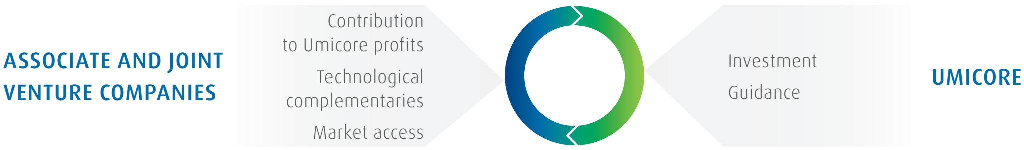
SOCIETY

Through employment, Umicore participates in the generation of wealth in the areas where it operates. Although wealth generation is an obvious benefit, the way in which this wealth is generated is also of great importance. Ultimately, Umicore can only continue operating if it has the licence to do so from society. To maintain this licence, Umicore does the utmost to operate in a way that promotes sustainable development. This goes beyond operating within the legally defined boundaries set for all companies. We set our own standards, applicable across the Group, frequently surpassing the legislative demands in many areas where we operate. In addition to this commitment to sound operating practices, Umicore also strives to develop materials that enhance quality of life and, in particular, contribute to addressing certain critical environmental or societal challenges.

Contact with the communities where Umicore operates is the most direct way that we interact with society. Open and transparent dialogue with such communities is an integral part of our stakeholder engagement. Certain civil society groups (non-governmental organisations) also periodically declare a stake in our operations and the way we do business. Umicore welcomes such interest and attempts to engage with such groups in an open and constructive manner.

Umicore makes voluntary contributions at site and Group-level to a range of charitable causes in line with an internal policy and guidelines. We manage Group-level engagement efforts through a Group Donations Committee that has the mandate of engaging with civil society groups and determining the extent of partnerships at Group level. For information on these initiatives in 2017 see pages 202-203 of this report.

ASSOCIATE AND JOINT VENTURE COMPANIES



Umicore has investments in various business activities over which it does not exercise full management control. Associate companies are those where Umicore has a significant influence over financial and operating policies, but no control. Typically, this is evidenced by ownership of between 20% and 50% of the voting rights, while joint ventures usually entail a 50:50 split in ownership and control. Joining forces is a way to speed up technological developments or gain access to specific markets. Umicore has management control in half of the four associate and joint venture companies in which we hold a stake. Where management control is not exercised by Umicore, representation on the board of directors is the way in which we are able to guide and control the management and monitor business developments. Although we cannot impose our own policies and procedures on any associate (or indeed any joint venture where we do not possess majority voting rights), there is a clear communication of our expectations that the operations be run in accordance with the principles of the Umicore Way.

Umicore is rigorous in safeguarding any intellectual property that is shared with associate or joint venture partners. A full list of associate and joint venture companies can be found on pages 112-113.

PUBLIC SECTOR AND AUTHORITIES

Umicore paid a total of € 95 million in taxes on our 2017 operations. Umicore and our employees also contributed a total of € 99 million in social security payments. Umicore periodically enters into partnerships with public institutions such as universities with the primary aim of furthering certain research projects. Similarly, partnerships and research grants are occasionally contracted with public organisations. In 2017, Umicore was awarded a total of € 5.6 million in grants, relating primarily to planned R&D projects. Umicore does not make donations to political parties or organisations as a matter of policy.

In 2017, we continued our efforts to inform public policy and foster contacts with public authorities worldwide. These efforts are coordinated through the Government Affairs department and focus primarily on Europe, North America and China. Umicore aims to raise the profile and understanding of our technologies and contribute to the discourse on materials-related issues. In Europe, this has centred on three main topics: resource efficiency, with policies dealing with waste and raw materials, and the ongoing developments for a Circular Economy in the EU; advanced materials as a key enabling technology for low carbon technologies; and material technologies for the purification of exhaust gases from automobiles and trucks with combustion engines. Our initiatives also include access to EU and national government funding and innovation networks, particularly in the context of programmes that support the development of breakthrough technologies with environmental benefits.

Umicore experts are often invited as members of working groups and panels initiated by European or national authorities. We are part of the European Innovation Partnership (EIP) on Raw Materials, B20-G20, the High-Level Group (HLG) on Key Enabling Technologies (KET), the Steering Committee of Energy Materials Industrial Research Initiative (EMIRI) and the ERA-MIN network on industrial handling of raw materials for European Industries, to name a few. In addition, Umicore is part of the Knowledge and Innovation Community on Raw Materials, a consortium of over 100 partners to address the accessibility, availability and efficient use of raw materials in Europe.

When specific issues of interest arise, we communicate our position through the industry groups to which we are affiliated. Umicore is mindful of the sensitivity of taking positions on issues of public interest and has developed guidelines for doing so responsibly. Umicore is currently a member (both at corporate and business unit level) of the organisations listed below.

CORPORATE
- A3M (L'Alliance des Minerais, Minéraux et Métaux)
- Agoria (Belgian multi-sector federation for the technology industry)
- American European Community Association (AECA)
- Bebat
- Belgian Indian Chamber of Commerce and Industry (BICC&I)
- Belgian industrial Research and Development (BiR&D)
- Belgium-Japan Association & Chamber of Commerce (BJA)
- Eurometaux (European Non-Ferrous Metals Association)
- European Industrial Research Management Association (EIRMA)
- European Round Table of Industrialists (ERT)
- ETION
- Federation of Belgian Industrial Energy Consumers (FEBELIEC)
- Flemish Aerospace Group (FLAG)
- Flemish Network of Enterprises (Voka)
- Flanders-China Chamber of Commerce
- Metalle pro Klima (a WirtschaftsVereinigung Metalle initiative)
- TransAtlantic Business Council
- Vlamnse Technische Kring (VTK)
- World Economic Forum

CATALYSIS
- Associacao dos Fabricantes de Equipamentos para Controle de Emissoes Veiculares da América do Sul (AFEEVAS)
- Association for Emissions Control by Catalyst (AECC)
- Catalyst Manufacturers Association, Japan (CMAJ)
- Committee of Vehicle Emission Control in China (CVEC)
- Emission Controls Manufacturers Association, India (ECMA)
- European Precious Metals Association (EPMF)
- German Automotive Industry Association (VDA)
- German Chemical Federation (VCI)
- International Platinum Group Metals Association (IPA)
- Manufacturers of Emission Controls Association (MECA)
- Verband der Automobilindustrie (VDA)
- Verband der Chemischen Industrie e.V. (VCI)

ENERGY & SURFACE TECHNOLOGIES
- Cobalt Development Institute
- Cobalt REACH consortium
- Deutsche Gesellschaft für Galvano- und Oberflaechentechnik (DGO)
- Energy Materials Industrial Research Initiative (EMIRI)

- European Association for Battery, Hybrid and Fuel Cell Electric Vehicles (AVERE)
- Nickel Institute
- Nickel REACH consortium

RECYCLING
- European Battery Recycling Association (EBRA)
- European Electronics Recyclers Association (EERA)
- European Precious Metals Federation
- Fachvereinigung Edelmetalle (German Precious Metals Association)
- International Platinum Group Metals Association
- International Precious Metals Institute
- Minor Metals Trade Association
- Responsible Jewellery Council (RJC)
- The European Association of Advanced Rechargeable Batteries (RECHARGE)
- The International Platinum Group Metals Association (IPA)
- The London Bullion Market Association (LBMA)
- The London Platinum and Palladium Market (LPPM)
- Vereniging Nederlandse Metallurgische Industrie (VNMI)

DISTRIBUTION OF ECONOMIC BENEFITS

The most significant portion of Umicore's total income was used to secure the metal component of raw materials (the cost of which is passed on to the customer). After subtracting other raw materials costs, energy-related costs and depreciation, the remaining economic benefits available for distribution stood at € 1,043 million.

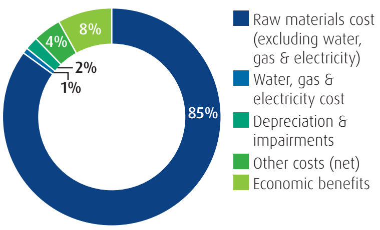
The biggest portion (€ 701 million) was distributed to employees. The bulk of employee benefits was in the form of salaries, with the balance going to national insurance contributions, pensions and other benefits.

Net interest to creditors totalled € 20 million, while taxes to the governments and authorities in the places where we operate, totalled € 95 million. The earnings attributed to minority shareholders were € 14 million.

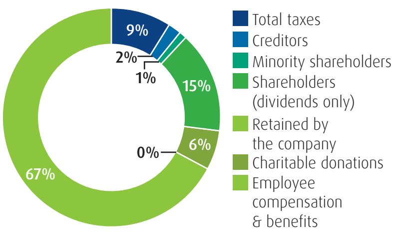
Subject to approval by shareholders at the AGM in April 2018, a gross dividend of € 0.70 per share will be distributed for the year 2017, resulting in a total provisional payout of € 154 million (using the number of outstanding shares at the end of 2017). A portion of this total was paid out in August 2017 as an interim dividend, and the remainder will be paid out in 2018. This is in line with Umicore's policy of paying a steady or gradually-increasing dividend.

Umicore made charitable donations totalling € 1.2 million.

TOTAL INCOME (INCLUDING CONTRIBUTION FROM ASSOCIATES)



ECONOMIC BENEFITS



Materiality

Umicore strives to plan for the best possible future by remaining in a healthy and competitive position whilst considering global economic, social and environmental megatrends. Our Vision 2015 strategy built on existing competencies, market positions and our long-standing expertise in metallurgy, materials science, application know-how and recycling, and combined them with our closed-loop business model to give us strong growth potential in clean air, clean energy, vehicle electrification and addressing resource scarcity.

Our Vision 2015 objectives covered the following ambitions and challenging performance goals:

ECONOMIC PERFORMANCE	GREAT PLACE TO WORK	ECO-EFFICIENCY	STAKEHOLDER ENGAGEMENT
Double digit revenues growth	Zero lost time accidents Become a preferred employer	Reduce our CO_2 emissions by 20% *(based on 2006 industrial scope)*	Implement our new sustainable procurement charter
15-20% average return on capital long term	Reduce employee body concentrations of specific metals (Cd, Pb, Co, Ni, As, Pt)	Reduce metal emissions to water and air by 20% *(based on 2009 industrial scope)*	Identify key stakeholders and engage with the local community at all our sites
	Assess and discuss individual employee development annually	Invest in tools to understand and measure our product life cycles and impacts	

Horizon 2020, launched in 2015, represents continuity in Umicore's strategic choices over the past decade and sets out further economic, environmental, value chain and society challenges. The definition of the environmental, value chain and society objectives for the Horizon 2020 strategy involved a materiality assessment to identify areas with the potential to turn sustainability into a greater competitive edge, as follows:

1. VALIDATING GLOBAL MEGATRENDS AND ASSESSING VISION 2015 ACHIEVEMENTS AND SHORTFALLS

A. VALIDATING GLOBAL MEGATRENDS

In 2014-15, the executive committee scanned in detail the four megatrends that underpin Umicore's growth ambitions. The results clearly showed that three of the four megatrends were strengthening: resource scarcity, the need for clean air and vehicle electrification (see pages 11-13 for more on these megatrends). The landscape had shifted significantly in photovoltaics, the fourth megatrend, where a combination of economic and technology choices led to a less favourable market for Umicore's higher-end solutions. Based on the results, the executive committee elected to focus Umicore's Horizon 2020 growth ambitions on activities that are linked to clean air (automotive catalysts), vehicle electrification (rechargeable battery materials) and resource efficiency, ensuring precious and specialty metals recycling through our closed-loop business model. These activities are therefore at the heart of our ambition to double Umicore earnings by 2020.

B. ASSESSING VISION 2015 ACHIEVEMENTS AND SHORTFALLS

In terms of sustainability performance, Vision 2015 yielded positive results. On the environmental front, we achieved a significant reduction in CO_2 and metal emissions to water and air, surpassing our targets in all three cases.

We also made strides in personnel development and stakeholder engagement. By 2015, the vast majority of Umicore employees had received an annual appraisal and development plan and we had further reduced exposure levels of our employees to various metals. Our next People Survey is planned for 2018.

In sustainable procurement, we built on our reputation as a pioneer in the field by deploying our Sustainable Procurement Charter and sought out conflict-free certifications for our smelters.

Safety was the sole area where performance was less than satisfactory. We set ourselves the target of becoming an accident-free company by 2015 and, while our safety performance improved, we fell short of this objective.

The challenge for Horizon 2020 is to maintain the progress made, continue focusing on topics such as safety where we fell short of our goals and to develop goals that enhance Umicore's competitive positioning, as follows:

MAINTAIN ACHIEVEMENTS in carbon and metal emissions, preferred employer and stakeholder engagement. Although we will not set further objectives for these themes, we will continue to measure and report on the impact and performance when relevant from a materiality point of view.

IMPROVE safety and occupational exposure. We will continue to pursue the zero accident and zero excess readings goals.

SECURE COMPETITIVE ADVANTAGE through sustainable sourcing. Thanks to the implementation of the Umicore Sustainable Procurement Charter, we have developed a reputation for ethical sourcing. This approach is aligned with Umicore's values and ethics but comes at a cost that is only gradually accepted by customers. Horizon 2020 seeks to leverage this sustainable sourcing approach to generate an enhanced competitive edge.

2. IDENTIFYING AND CHOOSING MATERIAL TOPICS FOR HORIZON 2020

A. MATERIALITY SCREENING

With the activities linked to clean air, vehicle electrification and recycling defined as the main levers for Umicore's growth, we screened for other topics of material importance to our business units and to our main stakeholder groups (see pages 53-56).

In addition to producing the initial list of material topics, based on the learning from Vision 2015, other potential topics were identified through direct feedback from stakeholders, including the findings of the annual internal business risk assessment, the results from the 2014 People Survey for all employees, the data from the implementation of Umicore's APS (Assessment of Product and services Sustainability) tool from 2012 to 2015 and direct questions submitted to Umicore or its business units by customers.

At corporate level, we screened material issues at peer companies and customers, as well as potentially relevant topics discussed by international business groups, research groups and media.

B. MATRIX SET-UP AND TESTING

All topics identified in the materiality screening phase were used to produce a draft materiality matrix. The relevance of these topics for Umicore was assessed by a project team and discussed with the Environment, Health and Safety (EHS) and Human Resources (HR) corporate teams. The starting matrix, containing about 65 topics, was submitted for further refining with the business unit management teams.

Based on the feedback received, a revised version of the Umicore Group materiality matrix was compiled consisting of top quartile topics. These 25 topics were the basis of the materiality testing and for ease of reference were clustered into five categories: Supply, Products, Operational Excellence, Human Resources, Health and Safety.

The list of material topics was then tested using an online survey that was sent to 48 stakeholders. These stakeholders – investors, customers and employees – ranked the topics.

3. DEFINITION OF OBJECTIVES AND REPORTING SCOPE

Based on the results of the first two phases, we established the scope of the objectives for Horizon 2020. We clustered our objectives in four main themes. Three of the Vision 2015 themes were kept – Economic Performance, Eco-Efficiency and Great Place to Work – but "Stakeholder Engagement" was replaced by "Value Chain and Society" to highlight our ambition of adopting a more holistic view of Umicore's presence in and impact on the overall value chain. This constitutes Umicore's main focus through 2020.

The process for defining the environmental, value chain and society objectives within Horizon 2020 involved a structured dialogue with the management of each business unit to determine the social and environmental topics that could generate a greater competitive edge. To ensure a degree of alignment with external expectations, we also conducted an online stakeholder survey. The objectives were debated and ratified by the executive committee in February 2016.

We also identified a range of issues that Umicore and our stakeholders identified as important for management purposes, which should remain part of the report, albeit not part of any specific Horizon 2020 objective. One example is CO_2 emissions: in our Vision 2015 review, we assessed that the absolute level of our CO_2 emissions was dependent on the energy mix of the countries in which we operate, a roadblock to pursuing a specific CO_2 emission reduction objective. We therefore chose to pursue energy, operational and materials efficiency instead. However, many stakeholders expect Umicore to report CO_2 emission and this data remains part of the reporting scope.

Our Horizon 2020 targets are as follows:

ECONOMIC PERFORMANCE

STRENGTHEN LEADERSHIP
Confirm our strong position and unique offer in clean mobility materials and recycling processes

DOUBLE EARNINGS
At least double the size of recurring EBIT compared to 2014 and excluding the discontinued operations

REBALANCE OUR PORTFOLIO
Ensure a more balanced distribution of earnings among the three business groups

VALUE CHAIN AND SOCIETY

SUSTAINABLE SUPPLY
Secure materials supply and promote our closed-loop business offer

Main material topics: *Criticality of raw materials, Recyclability and potential to close the loop, Recycled input materials use, Resource scarcity, Supplier screening, Supply disruptions, Sustainability of supply chain/ responsible sourcing*

SUSTAINABLE PRODUCTS AND SERVICES
Develop products that create sustainable value for our customers or society

Main material topics: *Life cycle thinking, Opportunities and risk from technologies and products, Product stewardship, Public health and safety, Resource efficient products and production, Toxic substances and phase out or ban*

Main stakeholders: *Customers, Investors and funders, Public sector & authorities, Society, Suppliers*

ECO-EFFICIENCY

EFFICIENT OPERATIONS
Increase value through efficient use of metals, energy and other substances

Main material topics: *Energy consumption and efficiency, Opportunities and risk from technologies and products, Resource efficient products and production*

Main stakeholders: *Customers, Investors and funders, Public sector & authorities, Society, Suppliers*

GREAT PLACE TO WORK

SAFETY
Become a zero-accident workplace

Main material topics: *Occupational safety, Process safety*

HEALTH
Reduce employee exposure to specific metals

Main material topics: *Occupational health*

PEOPLE ENGAGEMENT
Further improve people engagement with specific focus on talent attraction & retention, diversity management and employability

Main material topics: *Diversity and inclusion, Employee training and development, Talent attraction and retention*

Main stakeholders: *Customers, Employees, Investors and funders, Public sector & authorities, Society, Suppliers*

Other topics that were defined as material by at least one stakeholder group during the materiality assessment but are not a specific Horizon 2020 objective (i.e. CO_2 or metal emissions) are reported in the statements section of the report.

4. VALIDATION BY THE EXECUTIVE COMMITTEE

The matrix and its translation into specific environmental, value chain and society objectives were validated by the executive committee in February 2016. The economic objectives and growth ambitions had been previously validated in 2015. As a result, we believe that our Horizon 2020 objectives and the information that we report in this document represent a balanced reflection of external requirements and our own internal needs, and enable a balanced appreciation of our performance.

5. 2017 UPDATES

Following the 2017 review, the board of directors confirmed that Operational Excellence, Supply, Products, Human Resources and Health and Safety remain Umicore's material issues. We continue to follow our Horizon 2020 objectives and the associated materiality in determining the content and disclosure in this report.

Management approach

GENERAL MANAGEMENT APPROACH

The Umicore Way is the cornerstone of everything we do at Umicore. We believe that materials have been a key element in furthering the progress of mankind, that they are at the core of today's life and will continue to be enablers for future wealth creation. We believe that metal-related materials have a vital role to play, as they can be efficiently and infinitely recycled, which makes them the basis for sustainable products and services. We want Umicore to be a leader in providing and creating material-based solutions to contribute to fundamental improvements in the quality of life. The overarching principles guiding our "Materials for a better life" mission are:

VALUES

We hold the values of openness, respect, innovation, teamwork and commitment to be crucial to our success.

ENVIRONMENT AND SOCIETY

We recognise that our commitment to financial success must also take into account the broader economic, environmental and social impact of our operations.

EMPLOYEES

We strive to be a preferred employer of both current and potential employees.

BUSINESS INTEGRITY

Wherever we operate, our reputation is a most valuable asset, and it is determined by how we act. We avoid any action that would jeopardise our reputation.

GOALS AND PERFORMANCE 2016-2020

The Umicore Way outlines our values, the way in which we wish to achieve our strategic goals and our overall commitment to the principles of sustainable development. Our Horizon 2020 economic growth ambitions are tied to the megatrends of resource scarcity, clean air and vehicle electrification. The social and environmental objectives are clustered in three themes: Great Place to Work, Eco-efficiency and Value Chain and society. These objectives reflect our operational excellence and the aspects of our products and services that we can further improve to turn sustainability into a greater competitive edge.

The supporting components of our Horizon 2020 strategy (see Materiality page 62) described in this chapter, including policies, responsibilities and evaluation, ensure a close monitoring of our economic, environmental and social performance.

POLICIES

The Umicore Way is supplemented by detailed company codes including:

- Code of Conduct, a comprehensive framework for ethical business practice;
- Corporate Governance Charter, which sets out our management philosophy and governance principles;
- Sustainable Procurement Charter, which outlines our commitment to align our supply chain to our own values and practices; and
- Many internal policies developed in support of our vision and values such as Safety, Human Rights and Working Conditions, Training & Development and Donations & Sponsorship.

RESPONSIBILITIES

Final accountability for all aspects of Umicore's business lies with the executive committee. The broad sustainability approach is guided by an interdepartmental team with representatives from Environment, Health and Safety (EHS), Human Resources (HR), Finance and Procurement & Transportation. This team is responsible for developing and obtaining approval for sustainability objectives and guiding business units in their efforts to contribute to these objectives. At business group level, the economic/financial, environmental and social performance is owned by the Executive Vice-President of that entity. At business unit level, these aspects are owned by the head of the business unit. At site level, the site manager is responsible for the economic, social and environmental performance of the site.

MONITORING, EVALUATION AND CONTINUOUS IMPROVEMENT

Corporate EHS and Corporate HR have developed detailed technical guidance notes to assist the business units and sites, ensuring a collective understanding of concepts, definitions, roles and responsibilities. Regular workshops and meetings are organised each year at various levels of the organisation to share best practices.

Progress towards our objectives is measured annually against a set of KPIs reported through a group data management system. The data is collected and reported at the relevant entity level: site, business unit or business group. Social and environmental performance indicators that are relevant and material to Umicore's operations are also measured and reported. Corporate EHS, Corporate HR and Corporate Finance aggregate the performance of the business units to evaluate Umicore's overall progress towards the Horizon 2020 objectives.

On-site data verification relating to social and environmental performance and progress towards objectives is carried out internally. In addition, Umicore uses an assurance provider to check its social and environmental data. This assurance has been carried out by PricewaterhouseCoopers (PwC) since 2011. PwC evaluates the completeness and reliability of the reported data as well as the robustness of the associated data management system. Wherever necessary, performance indicators and reporting processes are reviewed and updated after every assurance cycle, as part of a continuous improvement process.

MANAGEMENT APPROACH TO ECONOMIC AND FINANCIAL PERFORMANCE

GOALS AND PERFORMANCE 2016-2020

Based on the validity analysis of the megatrends relevant for Umicore's Vision 2015 strategy, we identified specific growth areas where Umicore can contribute to solve certain societal and environmental problems. These growth areas form the basis of the Horizon 2020 strategy and are expected to enable Umicore to double its recurring EBIT between 2014 and 2020.

OPERATIONAL RETURNS

Umicore seeks to generate economic value through our existing businesses and any acquisitions or organic growth initiatives that we undertake, in line with our Horizon 2020 strategy. This entails generating a return on capital employed (recurring pre-tax operating profit/average capital employed for the period) in excess of our overall pre-tax cost of capital. This cost of capital can vary over time in function of our risk profile and the state of the world's debt and equity markets. The return on capital employed (ROCE) targeted in our Horizon 2020 strategy is over 15%.

Investments are assessed on a case-by-case basis: acquisitions are expected to be earnings-enhancing in the early phase of their integration and value-enhancing shortly thereafter. Similar criteria exist for organic investments, although the pursuit of longer-term growth projects invariably requires a longer view on expected returns.

In terms of operational performance, emphasis is placed on ROCE. We deal with precious and other rare metals and we therefore have a relatively high working capital intensity. Management is therefore incentivised to optimise performance both from an earnings perspective and by minimising capital employed.

SHAREHOLDER RETURNS

Umicore aims to create value for its shareholders. This is achieved through the development of a compelling strategy and a strong track record of delivering a solid performance against the strategic objectives. We seek to grow our existing businesses while maintaining or establishing strong leadership positions on the back of innovative technologies (see below). Shareholder returns depend on the valuation of the Umicore stock and are supported by the payment of dividends. Umicore has a policy of paying a stable or gradually increasing dividend (for a history of the dividend payout, click here). We may also, from time to time, return cash to shareholders by other means, for example through share buybacks and cancellations.

FINANCIAL STRENGTH

Umicore aims to safeguard the business through sound financial management and by maintaining a strong balance sheet. While we have no fixed target regarding debt levels, we aim to maintain an investment grade status at all times. We also seek to maintain a healthy balance between short and longer-term debt and between debt secured at fixed and floating interest rates. This approach, coupled with strong cash flow generation, allows us to self-fund the majority of our growth initiatives.

RESEARCH AND DEVELOPMENT

As a materials technology company, the future success and sustainability of our business depend on our ability to develop and market innovative products and services. We invest consistently in research and development (R&D), with the equivalent of 5% to 7% of revenues typically dedicated to R&D every year.

MARKET PRESENCE

As part of our Horizon 2020 strategy, Umicore seeks to maintain market leadership positions in recycling and clean mobility materials. The nature of our business, which consists of products for highly specific applications, means that we do not have a presence in any country or region which makes up a significant part of that country or region's economy. Our business is global in nature with 51 production sites in 22 countries.

ECONOMIC AND FINANCIAL PERFORMANCE POLICY

Our approach to financial and economic management derives from our vision, values and organisational principles as described in The Umicore Way. Specific internal policies have been developed to frame the company's approach to specific financial and economic aspects including: Dividend, Financing and Funding, Transfer Pricing, Credit Management, Hedging, Capital Expenditure and Mergers & Acquisitions.

ECONOMIC AND FINANCIAL PERFORMANCE RESPONSIBILITY

Accountability for the overall economic and financial performance of Umicore lies with the Chief Executive Officer while each Executive Vice-President is responsible for the financial performance of his/her business group. The Chief Technology Officer and his/her organisation has oversight for the technology portfolio of the group and the overall research and development activities. At business unit level, the head of the business unit is responsible for the operational and financial performance of the business unit. The Chief Financial Officer has overall oversight of Umicore's financial and economic performance and is supported by a Corporate Finance team that includes specific expertise centres covering aspects such as tax, treasury, accounting & control, and the internal control environment. At business unit level, financial controllers are responsible for managing the financial and reporting aspects of the business unit.

MANAGEMENT APPROACH TO ENVIRONMENTAL PERFORMANCE

GOALS AND PERFORMANCE 2016-2020

In The Umicore Way, Umicore commits to continually improve its environmental performance. As a materials technology company, we have defined energy efficiency and the reduction of metal emissions as core environment-related objectives in our Horizon 2020 strategy. These objectives represent what we believe to be the most material environmental aspect of our business and the ones that are most important to our various stakeholders (see Materiality, page 62). The performance review of energy efficiency is reported in the Eco-Efficiency section on page 29.

While Umicore's environmental objectives through 2020 focus on energy efficiency and the reduction of metal emissions, we believe it is equally important to continuously monitor, control and report the performance of our organisation in relation to other environmental aspects. We do that using the same measurement tools indicated in our General Management Approach. These indicators monitor how we are building on the Vision 2015 achievements in terms of environmental performance. These underlying performance indicators, detailed in the Environmental Statements, include:

- Emission to water and air, pages 174-176
- Greenhouse gases, pages 176-177
- Water consumption, pages 179-180
- Waste volumes, page 180
- Control and remediation of historical pollution, page 181
- Regulatory compliance and management systems, page 182

The following specific management approach applies to both material topics and the underlying performance indicators.

ENVIRONMENTAL PERFORMANCE POLICY

Our approach to environmental management derives from the vision, values and organisational principles found in The Umicore Way. An internal Group EHS Guidance Note details the approach to measuring and reporting on each relevant environmental indicator. A specific internal policy on energy efficiency was rolled out throughout the group from 2011 to 2015 and created a high level of awareness and commitment at sites and within business units to strive for continual energy efficiency improvement. In addition, Umicore encouraged all business unit initiatives that increased recycling potential. On a global scale, metals recycling reduces the environmental impact related to the acquisition and transformation of metals into products.

ENVIRONMENTAL PERFORMANCE RESPONSIBILITY

Umicore's environmental performance and impact accountability lies with the executive committee. In the executive committee, the Chief Counsel is Executive Vice-President for Environment, Health and Safety, Corporate Security and Internal Audit and responsible for all environmental matters and is supported by the Senior Vice President Environment, Health & Safety. The Executive Vice-Presidents are responsible for the overall environmental performance of their business group. At business unit level, the head of the business unit is responsible for the overall environmental performance. The general manager of each site has a similar responsibility at site level.

ENVIRONMENTAL PERFORMANCE BOUNDARY

Energy efficiency performance and underlying performance indicators contribute to reducing our impact on the environment, for example through an expected reduction of our carbon footprint of lower impact or the metal emissions on air and water.

MANAGEMENT APPROACH TO SOCIAL PERFORMANCE

GOALS AND PERFORMANCE 2016-2020

As set out in The Umicore Way, we strive to be a preferred employer for both current and potential employees and to act and operate in line with the expectations of society. We have defined three social objectives within the context of our Horizon 2020 strategy: reducing lost-time accidents to zero, further reducing occupational exposure to specific metals and increasing our diversity, talent attraction and retention and employability. We also have objectives which relate to our broader social impact and these can be found in our Management Approach to Value Chain and Society, page 67.

These objectives were defined as material topics in the materiality assessment both by internal and external stakeholders. Talent management is key to reaching our desired business growth. Attracting, developing and retaining talent in competitive labour markets support the business units in their growth plans. In addition, increasing the diversity of our workforce is not only in line with expectations from society, it should also increase our chance of success. Given the ageing population and the need for longer careers, we are also putting programmes in place to increase the employability of our workforce. The performance review of these material topics, including zero accident and reducing occupational exposure, is reported in the Great Place to Work section, pages 31-33.

While Umicore's social objectives determine a special focus through 2020, we believe it is equally important to continuously monitor, control and report our social performance in other areas. We do that using the same measurement tools indicated in our General Management Approach. These underlying performance indicators, detailed in the Social Statements section, include:

- Monitoring of workforce demographics, pages 185-187
- Monitoring of human rights, compliance and risk, page 190
- Monitoring of employee health aspects beyond metal exposure, pages 191-193
- Monitoring of contractor safety, page 194

The following specific management approach applies to both materials topics and the underlying performance indicators.

SOCIAL PERFORMANCE POLICY

Our approach to social performance derives from the vision, values and organisational principles found in The Umicore Way. An internal Group Social Reporting Guidance Note provides detailed guidance on measuring and reporting on social performance. Specific internal policies have been developed to frame specific elements of our social management approach including Safety, Human Rights and Working Conditions and Training & Development. In addition, Umicore has a Global Framework Agreement on Sustainable Development in place with international trade unions.

SOCIAL PERFORMANCE RESPONSIBILITY

Umicore's social performance and impact accountability lies with the executive committee. In the executive committee, the CEO has oversight responsibilities for Umicore's Human Resources issues and is supported by the Senior Vice President Human Resources. The Executive Vice-Presidents are responsible for the social aspects of their business group. At business unit level, the head of the business unit is responsible for the overall social performance. The general manager of each site has a similar responsibility at site level. A regional Human Resources organisation exists to manage social aspects at regional and country level, and to provide structural support to the business units in all aspects of human resources management.

SOCIAL PERFORMANCE BOUNDARY

Social performance and the underlying performance indicators have a direct impact on Umicore's workforce (enhanced engagement and well-being at all levels and attracting and retaining the right skills).

MANAGEMENT APPROACH TO VALUE CHAIN AND SOCIETY PERFORMANCE

GOALS AND PERFORMANCE 2016-2020

The relationship between customers and suppliers is an essential element to building financial and economic value and plays a key role in the promotion of social and environmental best practices. The Umicore Way also covers the relationships with our various stakeholders.

The value chain and society objectives cover Umicore's presence and impact upstream with suppliers, and downstream contribution of our products and services to a better life. The performance review of these material topics is reported in the Value Chain and Society section, pages 26-27.

While Umicore's value chain and society objectives determine a special focus through 2020, we believe it is equally important to continuously monitor, control and report our relationship with all the other stakeholders. Information on our stakeholder groups is listed in the Stakeholder Engagement section, pages 53-56. In addition, we report on the following topics in the Value Chain Statements section:

- Monitoring of the supplier assessment for indirect procurement, page 200
- Product regulatory compliance, pages 201-202
- Monitoring of our donations, pages 202-203

The following specific management approach applies to both materials topics and the underlying performance indicators.

VALUE CHAIN AND SOCIETY PERFORMANCE POLICY

Our approach to stakeholder engagement derives from the vision, values and organisational principles found in The Umicore Way. Specific charters/policies have been developed to frame specific elements of our approach to stakeholder engagement, including the Sustainable Procurement Charter, Responsible global supply chain of minerals from conflict-affected and high risk areas, Policy, Human Rights & Working Conditions Policy and External Communications Policy.

VALUE CHAIN AND SOCIETY PERFORMANCE RESPONSIBILITY

Our presence and impact both upstream and downstream is based on a business-specific approach whereby all business units are required to identify and engage with their respective suppliers, customers and stakeholders. In addition, a team comprising members of various departments, including Corporate EHS, Corporate HR, Group Communications, Corporate Finance and Procurement & Transportation, meets regularly to map the overall stakeholder expectations and to convene, whenever necessary, internal or external stakeholder dialogue sessions.

VALUE CHAIN AND SOCIETY PERFORMANCE BOUNDARY

The value chain and society theme focuses on potential impacts on society incurred through our activities, products and services. For reporting, all entities are considered. While we focus primarily on those of our activities that are directly linked to clean mobility and recycling, other initiatives targeting suppliers, customers or society are tracked and appropriately reported, whether through communications such as this annual report or through other specific communication channels.

CORPORATE GOVERNANCE REPORT

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G1 CORPORATE GOVERNANCE FRAMEWORK

Umicore has adopted the 2009 Belgian Code on Corporate Governance as its reference code.

The English, Dutch and French versions of the Code can be found on the website of the Belgian Corporate Governance Committee.

The Corporate Governance Charter describes in detail the governance structure of the Company, as well as the policies and procedures of the Umicore group. The Charter is available on the Umicore website) and may be obtained on request from Umicore's group Communications Department.

Umicore has articulated its mission, values and basic organisational philosophy in a document called "The Umicore Way". This document spells out how Umicore views its relationship with its customers, shareholders, employees and society. It is supplemented by detailed company codes and policies, the most significant of which is the Code of Conduct (see G9).

In terms of organisational philosophy, Umicore believes in decentralisation and in entrusting a large degree of autonomy to each of its business units. The business units in turn are accountable for their contribution to the group's value creation and for their adherence to group strategies, policies, standards and sustainable development approach.

In this context, Umicore is convinced that a sound corporate governance structure constitutes a necessary condition to ensure its long-term success. This implies an effective decision-making process based on a clear allocation of responsibilities. This approach must ensure an optimal balance between a culture of entrepreneurship at the level of the business units and effective steering and oversight processes. The Corporate Governance Charter deals in more detail with the responsibilities of the shareholders, the board of directors, the CEO and the executive committee and also the specific role of the audit committee and of the nomination & remuneration committee. The present statements provide information on governance issues which relate primarily to the financial year 2017.

G2 CORPORATE STRUCTURE

The board of directors is the ultimate decision-making body of Umicore, subject to all matters specifically reserved to the shareholders' meeting by the Belgian Companies Code or Umicore's articles of association. The board is assisted in its role by an audit committee and a nomination & remuneration committee. The day-to-day management of Umicore has been delegated to the CEO, who also chairs the executive committee. The executive committee is responsible for devising the overall strategy of Umicore and for submitting it to the board for review and approval. It is also entrusted with the implementation of this strategy and with the effective oversight of the business units and corporate functions. The executive committee is furthermore responsible for screening the various risks and opportunities that Umicore may encounter in the short, medium or longer term (see Risk Management section) and for ensuring that adequate systems are in place in order to address these. The executive committee is responsible for defining and applying Umicore's approach to sustainable development.

Umicore is organised in business groups which in turn comprise business units that share common characteristics in terms of products, technologies and end-user markets. Some business units are further subdivided into market-focused business lines. In order to provide a group-wide support structure, Umicore has regional management platforms in China, North America, Japan and South America. Umicore's corporate headquarters are based in Belgium. This centre provides a number of corporate and support functions in the areas of finance, human resources, internal audit, legal and tax, as well as public and investor relations.

G3 SHAREHOLDERS

3.1 ISSUED SHARES – CAPITAL STRUCTURE

On 31 December 2017 there were 224,000,000 Umicore shares in issue, compared to 112,000,000 on 31 December 2016. This increase resulted from the share split approved by the extraordinary shareholders' meeting held on 7 September 2017, whereby each old share was split into two new shares effective as from 16 October 2017. All the below numbers of shares are mentioned on a post-share split basis.

The identity of shareholders having declared a participation of 3% or more as of 31 December 2017 can be found in the chapter "parent company separate summarised financial statements" (p. 170).

Also on 31 December 2017 Umicore owned 4,505,567 of its own shares representing 2.01% of its capital. Information concerning the shareholders' authorisation for Umicore to buy back its own shares and the status of such buy-backs can be consulted in the Corporate Governance Charter and on Umicore's website.

During the year, 1,507,676 own shares were used in the context of the exercise of employee stock options and 71,912 shares were used for share grants, of which 10,312 to the board members, 54,800 to the executive committee members and 6,800 following a partial conversion into shares of the bonus of the CEO.

3.2 DIVIDEND POLICY AND PAYMENT

Umicore's policy is to pay a stable or gradually increasing dividend. There is no fixed pay-out ratio. The dividend is proposed by the board at the ordinary (or annual) shareholders' meeting. No dividend will be paid which would endanger the financial stability of Umicore.

In 2017 Umicore paid a gross dividend of € 1.30 (€ 0.65 on a post-share split basis) per share relating to the financial year 2016. This was an increase by € 0.10 (€ 0.05 on a post-share split basis) compared to the gross dividend paid in 2016 in respect of the financial year 2015.

In July 2017 the board, in line with the Umicore dividend policy, decided to pay an interim dividend, equalling 50% of the total dividend declared for the previous financial year. Therefore a gross interim dividend of € 0.65 (€ 0.325 on a post-share split basis) per share was paid on 29 August 2017.

3.3 SHAREHOLDERS' MEETINGS 2017

The annual shareholders' meeting was held on 25 April 2017. On this occasion the shareholders approved the standard resolutions regarding the annual accounts, the appropriation of the results and the discharges to the directors and to the statutory auditor regarding their respective 2016 mandates. At the same general meeting, the shareholders appointed Mrs Liat Ben-Zur and Mr Gérard Lamarche respectively as new, independent director and as new director, both for a period of three years. Furthermore, the mandate of Mrs Ines Kolmsee as independent director was renewed for three years. The annual shareholders' meeting also approved the remuneration of the board for 2017. Details of the fees paid to the directors in 2017 are disclosed in the remuneration report.

Also on 25 April 2017 an extraordinary shareholders' meeting renewed the authorisation conferred to the Company and its direct subsidiaries to acquire Umicore shares on a regulated market within a limit of 10% of the subscribed capital, at a price per share between € 2 and € 37.50 (amounts adapted on a post-share split basis). This authorisation is valid until 31 May 2021 (included).

Finally, a special and an extraordinary shareholders' meeting were held on 7 September 2017, which approved two change of control clauses and the split of each then existing share into two new shares effective as from 16 October 2017, as well as the cancellation of a temporary provision in the bylaws on fraction of shares and a modification to the date of the annual shareholders' meeting.

G4 BOARD OF DIRECTORS

4.1 COMPOSITION

The board of directors, whose members are appointed by the shareholders' meeting resolving by a simple majority of votes without any attendance requirement, is composed of at least six members. The directors' term of office may not exceed four years. In practice, directors are elected for a (renewable) period of three years.

Directors can be dismissed at any time following a resolution of a shareholders' meeting deciding by a simple majority of the votes cast. There are no attendance requirements for the dismissal of directors. The articles of association provide for the possibility for the board to appoint directors in the event of a vacancy. The next general meeting must decide on the definitive appointment of the above director. The new director completes the term of office of his or her predecessor.

On 31 December 2017, the board of directors was composed of ten members: nine non-executive directors and one executive director.

On the same date six directors were independent in accordance with the criteria laid down in Article 526ter of the Belgian Companies Code and provision 2.3 of the 2009 Belgian Code on Corporate Governance.

Three of the 10 board members in office on 31 December 2017 are women. As a result, Umicore fully meets the minimum representation threshold of one third, as imposed by the Belgian Companies Code.

The directors on the board possess a diversity of skills, backgrounds and experience that help ensure that it is an effective governance body for Umicore.

In terms of gender and cultural diversity, the Board counts three women and six different nationalities among its 10 members. Diversity also arises from the board's members educational backgrounds that includes engineering, law, economics, finance and applied languages. The Board's cumulative industry experience is broad, covering automotive, electronics, chemicals, metals, energy, finance and jewellery sectors. It also includes people experienced in the public and private sector and members with experience in the different regions in which Umicore is active. Collectively the board possesses strong experience of managing industrial operations and counts nine active or former Chief Executive Officers in its ranks. The board also has collective experience in disciplines that are specifically relevant to Umicore's non-financial Horizon 2020 goals such as health and safety, talent attraction and retention and supply chain sustainability.

The composition of the board of directors underwent the following changes in 2017:

- Mrs Liat Ben-Zur was appointed independent director for a period of three years at the annual shareholders' meeting held on 25 April 2017;
- Mr Gérard Lamarche was appointed director for a period of three years at the above annual shareholders' meeting;
- The mandate of Mr Jonathan Oppenheimer as director expired on 25 April 2017;
- The mandate of Mrs Barbara Kux as independent director expired on 25 April 2017;
- Mr Ian Gallienne resigned as director with effective date 25 April 2017.

4.2 MEETINGS AND TOPICS

The board of directors held seven regular meetings in 2017, two of which were held via conference call. On one occasion the board also took decisions by unanimous written consent.

During 2017 the matters reviewed by the board included:

- financial performance of the Umicore group;
- approval of the annual and half-year financial statements;
- adoption of the statutory and consolidated annual accounts and approval of the statutory and consolidated annual reports;
- approval of the agenda of the ordinary, special and extraordinary shareholders' meetings and calling of these meetings;
- investment and divestment projects;
- funding mandates;
- EHS review, including sustainable development;
- audit committee reports;
- strategic opportunities and operational challenges;
- business reviews and market updates;
- mergers & acquisitions projects;
- annual performance review of the CEO and the other members of the executive committee;
- succession planning at the level of the board and the executive committee;
- litigation updates;
- interim dividend distribution.

The board also visited the Umicore Automotive Catalyst site in Onsan (South Korea) and the Rechargeable Battery Materials plant in Cheonan (Korea).

4.3 PERFORMANCE REVIEW OF THE BOARD AND ITS COMMITTEES

The chairman regularly conducts a performance review of the board and its committees.

The next performance review will take place in the first half of 2018 on the basis of assessment forms and/or Board discussions.

4.4 AUDIT COMMITTEE

The audit committee's composition and the qualifications of its members are fully in line with the requirements of Article 526bis of the Belgian Companies Code and the 2009 Belgian Code on Corporate Governance.

The audit committee is composed of three non-executive directors, two of them being independent. It is chaired by Mrs Ines Kolmsee.

The composition of the audit committee underwent one change in 2017: Mr Mark Garrett was replaced by Mr Colin Hall with effective date 29 July 2017.

All the members of the Audit committee have extensive experience in accounting and audit matters as demonstrated by their curriculum.

The committee met four times in 2017. Apart from the review of the 2016 full year and the 2017 half year accounts, the audit committee discussed matters related to internal audit, risk management, internal controls, IT strategy and non-audit services provided by the Company's statutory auditor. The 2018 internal audit plan was validated. Finally, the audit committee also reviewed the proposed audit plan 2017-2019 of the renewed statutory auditor mandate assignment.

4.5 NOMINATION & REMUNERATION COMMITTEE

The nomination & remuneration committee is composed of three members who are all non-executive directors, two of them being independent. It is chaired by the chairman of the board.

The composition of the nomination & remuneration committee underwent one change in 2017: Mrs Barbara Kux was replaced by Mr Mark Garrett with effective date 25 April 2017.

Two nomination & remuneration committee meetings were held in 2017. During the same period the committee discussed the remuneration policy for the board members, the board committee members and executive committee members, and the rules of the stock grant and option plans offered in 2017. The committee also discussed the succession planning at the level of the board and the executive committee.

G5 EXECUTIVE COMMITTEE

5.1 COMPOSITION

The executive committee has the form of a "comité de direction"/directiecomité" as defined under Article 524bis of the Belgian Companies Code.

The executive committee is composed of at least four members. It is chaired by the CEO, who is appointed by the board of directors. The members of the executive committee are appointed by the board of directors upon proposal by the CEO and upon recommendation of the nomination & remuneration committee.

The composition of the executive committee remained unchanged in 2017.

On 31 December 2017 the executive committee was composed of seven members including the CEO.

5.2 PERFORMANCE REVIEW

A review of the performance of each executive committee member is conducted annually by the CEO and discussed with the nomination & remuneration committee. The results are presented and discussed to/by the board of directors.

The board also meets annually in a non-executive session (i.e. without the CEO being present) in order to discuss and review the performance of the CEO.

The above performance reviews took place on 9 February 2017.

G6 RELEVANT INFORMATION IN THE EVENT OF A TAKEOVER BID

6.1 RESTRICTIONS ON TRANSFERRING SECURITIES

Umicore's articles of association do not impose any restriction on the transfer of shares or other securities.

The Company is furthermore not aware of any restrictions imposed by law except in the context of the market abuse legislation and of the lock-up requirements imposed on some share grants by the Belgian Companies Code.

The options on Umicore shares as granted to the CEO, to the members of the executive committee and to designated Umicore employees in execution of various Umicore incentive programmes may not be transferred inter vivos.

6.2 HOLDERS OF SECURITIES WITH SPECIAL CONTROL RIGHTS

There are no such holders.

6.3 VOTING RIGHT RESTRICTIONS

Umicore's articles of association do not contain any restriction on the exercise of voting rights by shareholders, providing the shareholders concerned are admitted to the shareholders' meeting and their rights are not suspended. The admission rules to shareholders' meetings are articulated in Article 17 of the articles of association. According to Article 7 of the articles of association the rights attached to shares held by several owners are suspended until one person is appointed as owner vis-à-vis the Company.

To the board's best knowledge none of the voting rights attached to the shares issued by the Company were suspended by law on 31 December 2017, save for the 4,505,567 shares held by the Company itself on that date (Article 622 §1 of the Belgian Companies Code).

6.4 EMPLOYEE STOCK PLANS WHERE THE CONTROL RIGHTS ARE NOT EXERCISED DIRECTLY BY THE EMPLOYEES

Umicore has not issued any such employee stock plans.

6.5 SHAREHOLDERS' AGREEMENTS

To the board's best knowledge there are no shareholders' agreements which may result in restrictions on the transfer of securities and/or the exercise of voting rights.

6.6 AMENDMENTS TO THE ARTICLES OF ASSOCIATION

Save for capital increases decided by the board of directors within the limits of the authorised capital, only an extraordinary shareholders' meeting is authorised to amend Umicore's articles of association. A shareholders' meeting may only deliberate on amendments to the articles of association – including capital increases or reductions, as well as mergers, de-mergers and a winding-up – if at least 50% of the subscribed capital is represented. If the above attendance quorum is not reached, a new extraordinary shareholders' meeting must be convened, which will deliberate regardless of the portion of the subscribed capital represented. As a general rule, amendments to the articles of association are only adopted if approved by 75% of the votes cast. The Belgian Companies Code provides for more stringent majority requirements in specific instances, such as the modification of the corporate object or the company form.

The Company's articles of association were amended once in 2017, following the extraordinary shareholders' meeting held on 7 September 2017, which approved a share split, the cancellation of a temporary provision on fraction of shares and a modification to the date of the annual shareholders' meeting.

6.7 AUTHORISED CAPITAL – BUY-BACK OF SHARES

The Company's share capital may be increased following a decision of the board within the limits of the so-called "authorised capital". The authorisation must be granted by an extraordinary shareholders' meeting; it is limited in time and amount and is subject to specific justification and purpose requirements. The extraordinary shareholders' meeting held on 26 April 2016 (resolutions published on 13 May 2016) has renewed the authorisation granted to the board to increase the Company's share capital in one or more times by a maximum amount of € 50,000,000. Up until 31 December 2017 this authorisation had not been used. It will lapse on 12 May 2021.

Following a resolution of the extraordinary shareholders' meeting held on 25 April 2017 the Company is authorised to buy back own shares on a regulated market within a limit of 10% of the subscribed capital, at a price per share comprised between € 2.00 and € 37.50 (amounts adapted following the share split approved on 7 September 2017) and until 31 May 2021 (included). The same authorisation was also granted to the Company's direct subsidiaries. The Company acquired 828,730 own shares in 2017 in implementation of the above authorisation.

6.8 AGREEMENTS BETWEEN THE COMPANY AND ITS BOARD MEMBERS OR EMPLOYEES PROVIDING FOR COMPENSATION IF THEY RESIGN, OR ARE MADE REDUNDANT WITHOUT VALID REASON, OR IF THEIR EMPLOYMENT CEASES BECAUSE OF A TAKEOVER BID

All the senior vice-presidents of the Umicore group are entitled to a compensation equivalent to 36 months base salary in the event of a dismissal within twelve months after a change of control of the Company. As far as the members of the executive committee are concerned, reference is made to the remuneration report (pages 76-85).

G7 CONFLICTS OF INTERESTS (ART. 523 – 524TER COMPANIES CODE)

On 9 February 2017, prior to the board discussing or taking any decision, Marc Grynberg declared that he had a direct conflicting interest of a proprietary nature in the implementation of the decisions taken by the board relating to his performance assessment and to his remuneration (including the grant of shares and options). In accordance with Article 523 of the Belgian Companies Code, Marc Grynberg did not take part in the board's discussions concerning this decision and he did not take part in the voting.

The above decisions had/will have the following financial consequences:

A) CASH REMUNERATION

The CEO received a fixed gross remuneration of € 680,000 in 2017. Also in 2017, he received a gross variable cash remuneration totalling € 210,000 as non-deferred part of his variable cash remuneration for the reference year 2016.

Furthermore, he received in 2017 a gross amount of € 90,450 as first half of the deferred payment of his variable cash remuneration for the reference year 2015 based on (1) the two year average Umicore group profitability criterion, i.e. the average return on capital employed (ROCE) for the reference years 2015 and 2016 (i.e. 14.2% giving rise to a percentage pay-out of 67%) and (2) the degree of meeting the plan performance, as approved by the board, for the same reference years 2015 and 2016 (no adjustment applied based on the degree of meeting the plan performance at group level). Also in 2017 he received a gross amount of € 81,000 as the second half of the deferred payment of his variable cash remuneration for the reference year 2014 based on (1) the three year average Umicore group ROCE for the reference years 2014, 2015 and 2016 (i.e. 13.5% giving rise to a percentage pay-out of 60%) and (2) the degree of meeting the plan performance, as approved by the board, for the same reference years 2014, 2015 and 2016 (no adjustment applied based on the degree of meeting the plan performance at group level).

In 2018 he will receive the first half of the deferred payment of his annual variable cash remuneration for the reference year 2016 based on (1) the two year average Umicore group ROCE for the reference years 2016 and 2017 and (2) the two year average Umicore EBIT growth for the same reference years 2016 and 2017. Also in 2018 he will receive the second half of the deferred payment of his annual variable cash remuneration for the reference year 2015 based on (1) the three year average Umicore group ROCE for the reference years 2015, 2016 and 2017 and (2) the three year average Umicore EBIT growth for the same reference years 2015, 2016 and 2017. The ROCE and EBIT-based deferred payments will be applicable for pay-outs from 2018 onwards.

The ROCE range is set between 7.5% (= pay-out of 0%) and a maximum of 17.5% (= pay-out of 100% at plan performance). When the achieved ROCE percentage falls between the above targets, the pay-out will be pro-rated. The impact of the EBIT growth is calculated by multiplying the average percentage of the EBIT growth for the reference years by two.

B) GRANT OF SHARES AND STOCK OPTIONS

The financial consequences for Umicore consist of: either 1) as long as Umicore decides to keep the shares it holds today: the financing and opportunity cost of maintaining such shares in its portfolio until the delivery date of the shares granted or the option's exercise date, or 2) if and to the extent that Umicore sells such shares at a later date: the difference on the date of exercise of the options between the exercise price and the market value of the shares that Umicore would have to buy on that date.

During 2017, no specific transactions or contractual commitments occurred between a member of the board or of the executive committee on the one hand, and Umicore or one of its affiliated companies on the other hand.

G8 STATUTORY AUDITOR

At the annual shareholders' meeting held on 25 April 2017 the statutory auditor's mandate of PricewaterhouseCoopers Bedrijfsrevisoren/Réviseurs d'Entreprises BCVBA/SCCRL was renewed for a period of three years. The statutory auditor is represented by Mr Kurt Cappoen for the exercise of this mandate.

Following the new applicable legislation on auditing services, the mandate of the current statutory auditor, who was initially appointed in 1993, will only be renewable once, i.e. in 2020 (the latter provided it occurs before 17 June 2020).

The Umicore policy detailing the independence criteria for the statutory auditor may be requested from Umicore.

G9 CODE OF CONDUCT

Umicore operates a Code of Conduct for all its employees, representatives and board members. This Code of Conduct is fundamental to the task of creating and maintaining a relation of trust and professionalism with its main stakeholders namely its employees, commercial partners, shareholders, government authorities and the public.

The main purpose of Umicore's Code of Conduct is to ensure that all persons acting on behalf of Umicore carry out their activities in an ethical way and in accordance with the laws and regulations and with the standards Umicore sets through its present and future policies, guidelines and rules. The Code of Conduct contains a specific section on complaints and expressions of concern by employees and "whistle-blower" protection.

The Code of Conduct is published in Appendix 4 to Umicore's Corporate Governance Charter.

G10 MARKET MANIPULATION AND INSIDER TRADING

Umicore's policy related to market abuse including insider trading is spelled out in the Umicore Dealing Code, which can be found under Appendix 5 to the Corporate Governance Charter.

G11 COMPLIANCE WITH THE 2009 BELGIAN CODE ON CORPORATE GOVERNANCE

Umicore's corporate governance systems and procedures are in line with the 2009 Belgian Code on Corporate Governance.

G12 BOARD OF DIRECTORS' REMUNERATION

REMUNERATION POLICY FOR THE BOARD OF DIRECTORS

As a principle, the remuneration of the non-executive members of the board should be sufficient to attract, retain and motivate individuals who have the profile determined by the board. The remuneration level should take into account the responsibilities and the commitment of the board members as well as prevailing international market conditions. On the basis of the recommendation made by the nomination & remuneration committee as to the form and structure of remuneration, the board of directors adopts the policy for remuneration of the non-executive directors. The nomination & remuneration committee bases its proposals on a review of prevailing market conditions for quoted companies which are part of the BEL20 index as well as other European companies of similar size operating in the Chemicals, Metals and Materials sectors. The results of the survey are discussed within the Nomination & Remuneration Committee and the board determines the remuneration for non-executive directors and board Committee members to be proposed to the annual shareholders' meeting.

NON-EXECUTIVE DIRECTORS' REMUNERATION

In order to determine adequate remuneration levels for its non-executive directors, at the end of 2016 Umicore conducted a survey of Umicore directors' fees against those of quoted companies on the BEL20 index as well as other European companies of similar size operating in the Chemicals, Metals and Materials sectors. The results of the survey were reviewed by the nomination & remuneration committee on 20 January 2017.

Based on the review of the overall compensation of the board members and of each element of the compensation, the nomination & remuneration committee concluded that the annual fixed fee requires adjustment. The nomination & remuneration committee proposed to the board an increase of the annual fixed fee by € 7,000, the annual fixed fee of the chairman of the board remaining unchanged.

The board of directors of 9 February 2017 followed this recommendation and the annual shareholders' meeting of 25 April 2017 approved the non-executive directors' remuneration.

The remuneration of the non-executive board members was as follows in 2017:

- **Chairman**: annual fixed fee: € 40,000 + € 5,000 per meeting attended + 2,000 Umicore shares (after the split of each share into two new shares on 16 October 2017).
- **Director**: annual fixed fee: € 27,000 + € 2,500 per meeting attended + € 1,000 per meeting attended for foreign-based board members + 1,000 Umicore shares (after the split of each share into two new shares on 16 October 2017).

The remuneration of the board Committee members was as follows in 2017:

AUDIT COMMITTEE

- **Chairman**: annual fixed fee: € 10,000 + € 5,000 per meeting attended.
- **Member**: annual fixed fee: € 5,000 + € 3,000 per meeting attended.

NOMINATION & REMUNERATION COMMITTEE

- **Chairman**: € 5,000 per meeting attended.
- **Member**: € 3,000 per meeting attended.

2017 BOARD REMUNERATION OVERVIEW

		(IN EUROS)	MEETINGS ATTENDED
Thomas Leysen (chairman) (non-executive director)	**Board**		
	Fixed annual fee	40,000	
	Fee per attended meeting	5,000	7/7
	Value of 2,000 granted shares	62,540	
	Nomination & remuneration committee		
	Fee per attended meeting	5,000	2/2
	Total remuneration	**147,540**	
	Benefits in kind company car	2,767	
Marc Grynberg (executive director)	**Board**		
	No remuneration as a Director (see hereafter 2017 CEO remuneration)		7/7
Liat Ben-Zur (independent, non-executive director) Appointed by the AGM of 25 April 2017	**Board**		
	Fixed annual fee	18,567	
	Fee per attended meeting	3,500	4/4
	Value of 688 granted shares	21,514	
	Total remuneration	**54,081**	
Françoise Chombar (independent, non-executive director)	**Board**		
	Fixed annual fee	27,000	
	Fee per attended meeting	2,500	7/7
	Value of 1,000 granted shares	31,270	
	Total remuneration	**75,770**	
Ian Gallienne (non-executive director) End of mandate: 25 April 2017	**Board**		
	Fixed annual fee	8,433	
	Fee per attended meeting	2,500	2/3
	Value of 312 granted shares retroceded to GBL	9,756	
	Total remuneration	**23,189**	
Mark Garrett (independent, non-executive director)	**Board**		
	Fixed annual fee	27,000	
	Fee per attended meeting	3,500	6/7
	Value of 1,000 granted shares	31,270	
	Audit committee		
	Fixed annual fee	5,000	
	Fee per attended meeting	3,000	3/3
	Nomination & remuneration committee		
	Fee per attended meeting	3,000	1/1
	Total remuneration	**96,270**	
Colin Hall (non-executive director)	**Board**		
	Fixed annual fee	27,000	
	Fee per attended meeting	3,500	7/7
	Value of 1,000 granted shares retroceded to GBL	31,270	
	Audit committee		
	Fixed annual fee	5,000	
	Fee per attended meeting	3,000	1/1
	Total remuneration	**90,770**	

		(IN EUROS)	MEETINGS ATTENDED
Ines Kolmsee (independent, non-executive director)	**Board**		
	Fixed annual fee	27,000	
	Fee per attended meeting	3,500	7/7
	Value of 1,000 granted shares	31,270	
	Audit committee		
	Fixed annual fee	10,000	
	Fee per attended meeting	5,000	4/4
	Total remuneration	**112,770**	
Barbara Kux (independent, non-executive director) End of mandate: 25 April 2017	**Board**		
	Fixed annual fee	8,433	
	Fee per attended meeting	3,500	3/3
	Value of 312 granted shares	9,756	
	Nomination & remuneration committee		
	Fee per attended meeting	3,000	1/1
	Total remuneration	**31,689**	
Gérard Lamarche (non-executive director) Appointed by the AGM of 25 April 2017	**Board**		
	Fixed annual fee	18,567	
	Fee per attended meeting	3,500	4/4
	Value of 688 granted shares retroceded to GBL	21,514	
	Total remuneration	**54,081**	
Eric Meurice (independent, non-executive director)	**Board**		
	Fixed annual fee	27,000	
	Fee per attended meeting	3,500	7/7
	Value of 1,000 granted shares	31,270	
	Total remuneration	**82,770**	
Jonathan Oppenheimer (non-executive director) End of mandate: 25 April 2017	**Board**		
	Fixed annual fee	8,433	
	Fee per attended meeting	3,500	1/3
	Value of 312 granted shares	9,756	
	Total remuneration	**21,689**	
Rudi Thomaes (independent, non-executive director)	**Board**		
	Fixed annual fee	27,000	
	Fee per attended meeting	2,500	6/7
	Value of 1,000 granted shares	31,270	
	Audit committee		
	Fixed annual fee	5,000	
	Fee per attended meeting	3,000	4/4
	Nomination & remuneration committee		
	Fee per attended meeting	3,000	2/2
	Total remuneration	**96,270**	

G13 CEO AND EXECUTIVE COMMITTEE REMUNERATION

REMUNERATION POLICY FOR THE CEO AND EXECUTIVE COMMITEE

The nomination & remuneration committee defines the remuneration policy principles for the CEO and the executive committee members and submits them to the board of directors for approval. It strives to have a fixed remuneration to reflect the level of responsibility and in line with market practices, as well as an attractive variable remuneration to reward the performance of the company against financial and sustainability criteria.

The compensation & benefits package for the CEO and executive committee members includes the following components: fixed remuneration, variable remuneration, share-based incentives (share grant and incentive stock option plans) subject to a three year lock-up period, pension plans and other benefits.

The inclusion of Umicore shares and stock options as part of the remuneration of the CEO and the executive committee members reflects the commitment of the company to create shareholder value. Shares are granted each year to the CEO and executive committee members in respect of the prior year and are subject to a three year lock-up period. As stock options are irrevocably taxable upon grant according to Belgian law, they vest at the time of granting and are therefore not linked to individual or business performance criteria. As a result, the share-based incentives should not be considered as a variable remuneration as meant under the Belgian Corporate Governance law of 6 April 2010 and are vested upon grant.

The remuneration of the CEO and executive committee members is reviewed on an annual basis by the nomination & remuneration committee . A survey is conducted every year to assess the competitiveness of the remuneration packages. Umicore benchmarks the total remuneration of the CEO and the executive committee members against BEL20 companies and European peer companies.

In line with the Belgian law of 6 April 2010 on Corporate Governance, the payment of half of the variable remuneration is deferred and subject to multi-year targets or criteria.

SYNTHETIC SUMMARY OF THE REMUNERATION OF THE CEO AND THE EXECUTIVE COMMITTEE MEMBERS

TIME TO CASH CONVERSION

Current year	Fixed	Annual review based on market practices BEL 20 and European peer companies
15 months	Undeferred variable 50%	Fixed discretionary based on individual objectives
27 months	Deferred variable 25%	Based on the two year average Group ROCE and Group recurring EBIT growth (y, y-1)
39 months	Deferred variable 25%	Based on the three year average Group ROCE and Group recurring EBIT growth (y, y-1, y-2)
3 years	Shares	Grant in recognition of services rendered in the ref year – not linked to individual or business performance criteria – subject to a 3 year lock-up
3 to 7 years	Stock options	Upfront grant for the ref year – not linked to individual or business performance criteria – subject to a 3 year lock-up

The above remuneration components are defined and assessed by the nomination & remuneration committee subject to board approval. This table is applicable until the year of reference 2016. See G15 – "CEO & executive committee members' deferred variable remuneration" for changes as of the year of reference 2017.

CEO'S REMUNERATION

FIXED REMUNERATION

The fixed remuneration of the CEO is reviewed on an annual basis by the nomination & remuneration committee .

VARIABLE CASH REMUNERATION SCHEME AND EVALUATION CRITERIA

The CEO's annual variable cash remuneration potential currently amounts to € 540,000, half of which involves an undeferred pay-out based on the individual performance including the annual overall financial performance of the Group, the progress achieved against Group strategic and sustainable development objectives, and adherence to the values of the Group. Financial criteria include ROCE, recurring EBIT and EBITDA with budget and year-on-year progress being used as reference. Strategic and sustainable development objectives are tied to Horizon 2020 covering economic performance, value chain and society, eco-efficiency and great place to work.

On proposal of the nomination & remuneration committee, the board of directors of 9 February 2017 approved a new concept of the deferred variable remuneration applicable as of pay-outs in 2018. The new concept intends to reward for the quality of the results (Group ROCE criterion) and provide an incentive for growth (Group recurring EBIT growth criterion).

It was agreed that the current Group ROCE criterion for the deferred variable will remain in place and that an upward adjustment or additional variable will be considered based on Group recurring EBIT growth criterion.

The deferred variable remuneration i.e. the other half of the annual variable cash remuneration potential, is based on the Umicore Group profitability criterion, i.e. the Return on Capital Employed (ROCE), as published in the annual report. The deferred pay-out is assessed over a multi-year timespan, with half of it paid after a period of two years based on the two year average ROCE. The other half is paid after a period of three years using as a reference the three year average ROCE. The ROCE range is set between 7.5% (= pay-out of 0%) and a maximum of 17.5% (= pay-out of 100%). When the achieved ROCE percentage falls between the minimum threshold and the maximum target, the pay-out will be pro-rated.

The additional variable, based on the target of the deferred variable remuneration i.e. for the CEO € 270,000 (target of € 135,000 after a period of two years and target of € 135,000 after a period of three years), will be determined by adding to the target a percentage equal to twice the average Group recurring EBIT growth percentage over the last 2 years, respectively 3 years. A threshold of 2% average Group recurring EBIT growth will be applied, i.e. no adjustments for recurring EBIT growth below 2%.

In case of any relevant structural change, the nomination & remuneration committee reserves the right to review and adjust the variable remuneration as appropriate.

At the beginning of every reference year, the individual objectives of the CEO are discussed during a session of the nomination & remuneration committee . During a board session they are presented by the chairman, discussed and approved by the board.

The annual performance of the CEO is assessed by the nomination & remuneration committee and the results of this assessment are presented by the chairman and discussed during a board session where the CEO is not present.

The variable cash remuneration may be converted partly or totally into Umicore shares at the discretion of the CEO. There are no provisions allowing the Company to reclaim any variable remuneration paid to the CEO.

SHARE-BASED INCENTIVES (SHARE GRANT AND STOCK OPTIONS)

Umicore shares are granted to the CEO at the discretion of the board of directors in recognition of services rendered in the previous year. The number of shares granted to the CEO in respect of the year 2017 was 10,400 (after the split of each share into two new shares on 16 October 2017). The shares are subject to a three year lock-up and are not subject to forfeiture conditions.

Stock options are granted to the CEO as part of the annual Umicore Incentive Stock Option Plan approved by the board of directors. The number of stock options granted to the CEO amounted in 2017 to 150,000 (after the split of each share into two new shares on 16 October 2017). There is no vesting period and the options are subject to a three year lock-up. Stock options allow the beneficiary to acquire a specific number of Umicore shares at a fixed price (the exercise price) within a specific period of time.

PENSION AND OTHER BENEFITS

Pensions include both defined contribution plans and the service cost of a defined benefit plan. Other benefits are representation allowance, benefits in kind (company car), and insurance benefits.

EXECUTIVE COMMITTEE MEMBERS' REMUNERATION

FIXED REMUNERATION

The fixed remuneration of the executive committee members is reviewed on an annual basis by the nomination & remuneration committee . The fixed remuneration can be different for each executive committee member and depends on criteria such as experience and responsibilities.

VARIABLE CASH REMUNERATION SCHEME AND EVALUATION CRITERIA

Umicore has adopted a variable cash remuneration scheme which aims to ensure that all executive committee members are rewarded in line with their annual individual performance as well as the overall performance of the Umicore Group. All the members of the executive committee are eligible for the same annual variable cash remuneration potential currently amounting to € 300,000, half of which involves an undeferred pay-out based on the annual individual performance (including adherence to the values of the Group, environmental and social performance).

On proposal of the nomination & remuneration committee, the board of directors of 9 February 2017 approved a new concept of the deferred variable remuneration applicable as of pay-outs in 2018. The new concept intends to reward for the quality of the results (Group ROCE criterion) and provide an incentive for growth (Group recurring EBIT growth criterion).

It was agreed that the current Group ROCE criterion for the deferred variable will remain in place and that an upward adjustment or additional variable will be considered based on Group recurring EBIT growth criterion. The deferred variable plan including the additional variable will be measured collectively for the executive committee members.

The deferred variable remuneration i.e. the other half of the annual variable cash remuneration potential, is based on the Umicore Group profitability criterion, i.e. the Return on Capital Employed (ROCE), as published in the annual report. The deferred pay-out is assessed over a multi-year timespan, with half of it paid after a period of two years based on the two year average ROCE. The other half is paid after a period of three years using as a reference the three year average ROCE. The ROCE range is set between 7.5% (= pay-out of 0%) and a maximum of 17.5% (= pay-out of 100%). When the achieved ROCE percentage falls between the minimum threshold and the maximum target, the pay-out will be pro-rated.

The additional variable, based on the target of the deferred variable remuneration i.e. for the executive committee members € 150,000 (target of € 75,000 after a period of two years and target of € 75,000 after a period of three years), will be determined by adding to the target a percentage equal to twice the average Group recurring EBIT growth percentage over the last 2 years, respectively 3 years. A threshold of 2% average Group recurring EBIT growth will be applied, i.e. no adjustments for recurring EBIT growth below 2%.

In case of any relevant structural change the nomination & remuneration committee reserves the right to review and adjust the variable remuneration as appropriate.

At the beginning of every reference year, the annual individual objectives of each executive committee member are fixed by the CEO on basis of their areas of responsibility. The annual individual objectives are specific, measurable, agreed, realistic, time bound and take into account the financial performance, the progress achieved against Group strategic and sustainable development objectives, and adherence to the values of the Group. Financial criteria include ROCE, recurring EBIT and EBITDA with budget and year-on-year progress being used as reference. Strategic and sustainable development objectives are tied to Horizon 2020 covering economic performance, value chain and society, eco-efficiency and great place to work.

The annual performance of each executive committee member is initially assessed by the CEO. The results of the assessments and the individual variable cash remuneration proposals are presented by the CEO to the nomination & remuneration committee before approval by the board.

There are no provisions allowing the Company to reclaim any variable remuneration paid to the executive committee members.

SHARE BASED INCENTIVES (SHARE GRANT AND STOCK OPTIONS)

Umicore shares are granted to the executive committee members at the discretion of the board of directors in recognition of services rendered in the previous year. The number of shares granted to each member of the executive committee in respect of the year 2017 was 7,400 (after the split of each share into two new shares on 16 October 2017). The shares are subject to a three year lock-up and are not subject to forfeiture conditions.

Stock options are granted to the executive committee members as part of the annual Umicore Incentive Stock Option Plan approved by the board of directors. The number of stock options granted to each executive committee member currently amounted in 2017 to 35,000 (after the split of each share into two new shares on 16 October 2017). There is no vesting period and the options are subject to a three year lock-up. Stock options allow the beneficiary to acquire a specific number of Umicore shares at a fixed price (the exercise price) within a specific period of time.

PENSION AND OTHER BENEFITS

Pensions include both defined contribution plans and the service cost of a defined benefit plan. Other benefits include representation allowances, company cars and insurance benefits.

TOTAL CEO AND EXECUTIVE COMMITTEE REMUNERATION FOR 2017

All components of the remuneration earned by the CEO and the executive committee members for the reported year are detailed in the table below:

(IN EUROS)		CEO	EXECUTIVE COMMITTEE (IN AGGREGATE)
Status		Self-employed	
Time to cash conversion			
Current year	Fixed	680,000	2,435,000
15 months	Undeferred Variable 50% (ref year 2017)	220,000	790,000
27 months	Deferred Variable 25% (ref year 2016)	130,950	436,500
39 months	Deferred Variable 25% (ref year 2015)	133,650	408,375
3 years	Shares	425,360	1,815,960
3 to 7 years	Stock options	583,500	816,900
Pension	Defined contribution plan	47,600	139,919
	Defined benefits plan (service cost)	123,808	595,018
Others benefits	Representation allowance, benefit in kind company car, insurance benefits	46,223	141,735
Total		**2,391,091**	**7,579,407**

G14 SHARE AND SHARE OPTION OWNERSHIP AND TRANSACTIONS 2017

EXECUTIVE COMMITTEE SHARE OPTION OWNERSHIP AND TRANSACTIONS 2017*

	OPTIONS AT 31 DEC 2016	OPTIONS GRANTED IN 2017	NUMBER OF OPTIONS EXERCISED IN 2017	AVERAGE EXERCISE PRICE (IN EUROS)	YEAR OF GRANT OF OPTIONS EXERCISED	NUMBER OF OPTIONS FORFEITED	OPTIONS AT 31 DEC 2017**
Marc Grynberg	930,000	150,000	330,000	18.410	2011 / 2012	0	750,000
Stephan Csoma	105,000	35,000	0	–	–	0	140,000
Denis Goffaux	140,000	35,000	35,000	18.187	2013	0	140,000
Géraldine Nolens	71,000	35,000	12,000	18.187	2013	0	94,000
Filip Platteeuw	105,000	35,000	12,000	16.143	2014	0	128,000
Pascal Reymondet	105,000	35,000	35,000	16.143	2014	0	105,000
Marc Van Sande	140,000	35,000	70,000	17.165	2013 / 2014	0	105,000

* The number of options and the exercise price take into account the share split on 16 October 2017.

** These options can be exercised at strike prices between € 19.035 and € 25.500 (value after the share split on 16 October 2017).

Details of all options exercised and other share-related transactions of executive committee or board members can be found on the FSMA website.

EXECUTIVE COMMITTEE SHARE OWNERSHIP 2017

	SHARES OWNED AT 31/12/2016	SHARES OWNED AT 31/12/2017
Marc Grynberg	630,400	767,600
Stephan Csoma	21,800	29,200
Denis Goffaux	37,800	42,200
Géraldine Nolens	4,700	12,100
Filip Platteeuw	22,800	30,200
Pascal Reymondet	50,300	57,700
Marc Van Sande	38,800	46,200
Total	**806,600**	**985,200**

BOARD OF DIRECTORS SHARE OWNERSHIP 2017

	SHARES OWNED AT 31/12/2016	SHARES OWNED AT 31/12/2017
Thomas Leysen	909,840	883,960
Liat Ben-Zur	–	688
Françoise Chombar	6,684	1,684
Mark Garrett	1,666	2,666
Colin Hall	–	–
Ines Kolmsee	4,610	5,610
Gérard Lamarche	–	3,000
Eric Meurice	1,666	2,666
Rudi Thomaes	5,410	4,400
Total	**929,876**	**904,674**

CONTRACTUAL RELATIONSHIPS

CONTRACT BETWEEN UMICORE AND MARC GRYNBERG, CEO

Taking into account Marc Grynberg's seniority in the Umicore Group, the board resolved as follows in 2008:

- In case of termination of the contract by Umicore, a total compensation equivalent to 18 months of his annual base salary will be paid.
- A total compensation of three years of annual base salary as minimum indemnity will be paid to the Chief Executive Officer if his employment as Chief Executive Officer would be terminated within a 12 month period following a change of control due to a takeover bid (not cumulative with the previous provision).
- It is at the board of directors' discretion to determine whether the variable cash remuneration would form part of any final indemnity.

CONTRACTS BETWEEN UMICORE AND EXECUTIVE COMMITTEE MEMBERS

Following a board decision taken in 2007, in case the employment of an executive committee member should be terminated within 12 months of a change of control of the Company, that member would stand to receive a total compensation equivalent to 36 months' base salary. This only applies for Pascal Reymondet and Marc Van Sande who were executive committee members at the date of this board decision.

INDIVIDUAL ARRANGEMENTS IN CASE OF TERMINATION OF THE CONTRACT BY UMICORE

Denis Goffaux was appointed Chief Technology Officer on 1 July 2010. Taking into account Denis Goffaux's seniority in the Umicore Group a total compensation equivalent to 18 months of his annual base salary will be paid in case of contract termination. In line with the Belgian Corporate Governance Law of 6 April 2010, the nomination & remuneration committee recommended this arrangement and this was approved by the board of directors on 1 June 2010.

Stephan Csoma and Filip Platteeuw were appointed executive committee members on 1 November 2012. Taking into account their seniority in the Umicore Group a total compensation equivalent to 18 months of their annual base salary will be paid in case of contract termination. In line with the Belgian Corporate Governance Law of 6 April 2010, these arrangements were approved by the nomination & remuneration committee of 18 September 2012 subject to the absence of any objections of the board, which were not formulated.

Géraldine Nolens was appointed executive committee member on 1 July 2015. Taking into account Géraldine Nolens' seniority in the Umicore Group, a total compensation equivalent to 18 months of her annual base salary will be paid in case of contract termination. In line with the Belgian Corporate Governance Law of 6 April 2010, the nomination & remuneration committee recommended this arrangement and this was approved by the board of directors on 28 April 2015.

For all prior mentioned executive committee members it is at the board of directors' discretion as to whether the variable cash remuneration would form part of any final indemnity.

The contract of Marc Van Sande was signed before the Belgian Corporate Governance Law of 6 April 2010 came into force. In case of termination the compensation is based on age, seniority in the Umicore Group and the total compensation and benefits.

Pascal Reymondet has a German employment agreement signed on 1 March 1989. There is no contractual arrangement in case of termination and German law will be applicable.

G15 CHANGES TO REMUNERATION SINCE THE END OF 2017

NON-EXECUTIVE DIRECTORS' REMUNERATION

Based on the review of the overall compensation of the board members and of each element of the compensation, the nomination & remuneration committee concluded that the compensation is appropriate with the exception of the fixed fee of the chairman of the board, which is far below market compared to European peer companies. The nomination & remuneration committee proposed to the board an adjustment of the fixed fee of the chairman with € 20,000 to a total fixed fee of € 60,000.

The board of directors of 8 February 2018 followed this recommendation and decided to submit this increase to the approval of the shareholders.

CEO'S REMUNERATION

On 7 February 2018, the nomination & remuneration committee reviewed the remuneration of the CEO and the executive committee members based on a comparison survey with European peer companies and BEL20 index companies.

On proposal of the nomination & remuneration committee, the board of directors of 8 February 2018 decided to increase the fixed remuneration of the CEO by € 20,000 to € 700,000 as of 1 January 2018.

EXECUTIVE COMMITTEE MEMBERS' REMUNERATION

The nomination & remuneration committee of 7 February 2018 reviewed the remuneration of the executive committee members. On proposal of the nomination & remuneration committee, the board of directors of 8 February 2018 decided to adjust the annual fixed remuneration of the executive committee members slightly for four members with a more significant salary adjustment for two, the total adjustment being 5.5% of the salary mass.

CEO & EXECUTIVE COMMITTEE MEMBERS' DEFERRED VARIABLE REMUNERATION

The nomination & remuneration committee reviewed the modalities for the deferred variable remuneration of the CEO and executive committee members. Upon proposal by the nomination & remuneration committee, the board of directors of 8 February 2018 decided to apply a minimum deferment of three years, applicable as of reference year 2017. There will therefore be one deferred variable based on a three-year period instead of the former practice with 50% paid out after two years and 50% paid out after three years.

The board also decided to maintain the additional variable based on average recurring EBIT growth but applying as of reference year 2017 a threshold of 10% minimum average recurring EBIT growth instead of 2%. There will therefore be no additional deferred variable for three-year average recurring EBIT growth below 10%.

Economic statements

GROUP

KEY FIGURES

(in million Euros unless stated otherwise)	NOTE	2013	2014	2015	201	2017
Turnover*		9,819.3	8,828.5	10,441.9	11,085.9	12,277.2
Revenues (excluding metal)		2,363.4	2,366.5	2,629.0	2,667.5	2,915.6
Recurring EBITDA	F9	462.6	442.2	504.7	526.8	599.3
Recurring EBIT	F9	304.0	273.7	330.3	350.7	410.3
of which associates	F9	11.8	28.3	14.3	18.3	29.6
Non-recurring EBIT	F9	(43.4)	(21.6)	(74.9)	(110.2)	(46.2)
IAS 39 effect on EBIT	F9	(0.5)	(2.7)	(2.7)	(9.0)	(20.7)
Total EBIT	F9	260.0	249.3	252.7	231.6	343.3
Recurring EBIT margin (in %)		12.4	10.4	12.0	12.5	13.1
Return on Capital Employed (ROCE) (in %)	F31	13.6	12.2	13.7	14.6	15.1
Effective recurring tax rate (in %)	F13	21.3	21.8	21.4	25.0	25.7
Recurring net profit, Group share	F9	218.0	193.1	246.0	232.9	266.8
Result from discontinued operations, Group share		0.0	14.4	16.4	(50.3)	(2.9)
Net profit, Group share	F9	179.0	170.6	169.2	130.7	211.9
R&D expenditure	F9	140.6	143.3	144.5	155.9	175.2
Capital expenditure	F34	279.6	202.4	240.3	287.3	365.3
Net cash flow before financing	F34	185.9	139.9	119.0	141.9	(381.0)
Total assets of continued operations, end of period		3,512.3	3,851.4	4,030.1	4,145.7	5,115.7
Group shareholders' equity, end of period		1,677.1	1,704.6	1,731.6	1,789.6	1,803.0
Consolidated net financial debt of continued operations, end of period	F24	215.0	298.3	321.3	296.3	839.9
Gearing ratio of continued operations, end of period (in %)	F24	11.1	14.6	15.3	13.8	31.1
Average net debt/recurring EBITDA (in %)		44.2	51.9	61.8	57.6	93.8
Capital employed, end of period	F31	2,233.6	2,335.3	2,414.5	2,397.4	3,003.5
Capital employed, average	F31	2,241.3	2,240.1	2,402.2	2,398.7	2,710.0

* Including the elimination of the transactions between continued and discontinued operations.

DATA PER SHARE

(in Euros/share)	NOTE	2013	2014	2015	2016	2017
Earnings per share						
Recurring EPS	F39	0.98	0.89	1.13	1.07	1.22
EPS – basic	F39	0.80	0.79	0.78	0.60	0.97
EPS – diluted	F39	0.80	0.79	0.78	0.60	0.96
Gross dividend		0.50	0.50	0.60	0.65	0.70
Net cash flow before financing, basic	F34	0.84	0.65	0.55	0.65	(1.74)
Total assets of continued operations, end of period		16.00	17.82	18.65	18.96	23.31
Group shareholders' equity, end of period		7.64	7.89	8.01	8.18	8.21
Shareprice						
High		21.06	19.11	22.78	29.36	39.88
Low		15.77	15.21	15.91	16.19	24.28
Average		17.86	17.16	19.56	23.89	31.45
Close		16.98	16.66	19.34	27.08	39.46

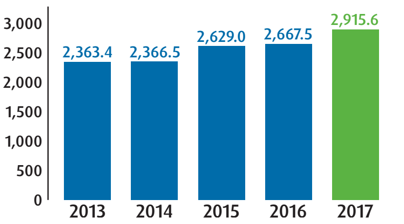
All Group KPIs include the discontinued operations, unless mentioned otherwise. Zinc Chemicals contributed six months in 2016 and Building Products until end September 2017 to the KPIs of discontinued operations, unless mentioned otherwise.
On 16 October 2017 each Umicore share was split into two new shares. As a result, as from that date, Umicore's capital is represented by 224,000,000 fully paid-up shares without nominal value, each representing 1/224,000,000 of the capital. All data was updated accordingly.

NUMBER OF SHARES

	NOTE	2013	2014	2015	2016	2017
Total number of issued shares, end of period	F39	240,000,000	224,000,000	224,000,000	224,000,000	224,000,000
of which shares outstanding	F39	219,542,678	216,171,456	216,144,932	218,653,700	219,494,433
of which treasury shares	F39	20,457,322	7,828,544	7,855,068	5,346,300	4,505,567
Average number of shares outstanding, basic	F39	222,514,518	216,124,170	216,890,256	217,775,656	219,079,587
Average number of shares outstanding, diluted	F39	223,466,330	216,903,694	217,854,490	219,370,320	221,148,890

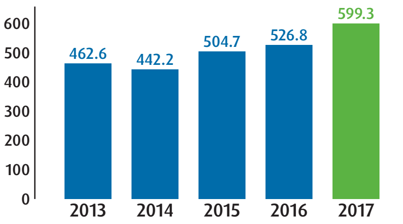
REVENUES (EXCLUDING METAL)

Million Euros



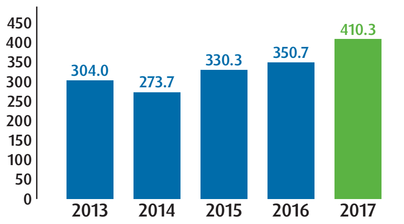
RECURRING EBITDA

Million Euros



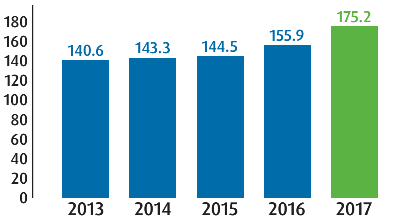
RECURRING EBIT

Million Euros



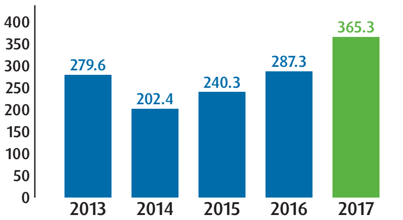
R&D EXPENDITURE

Million Euros



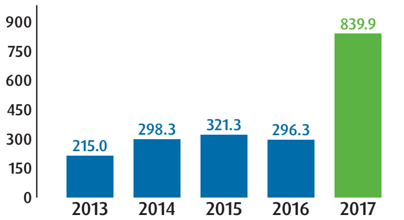
CAPITAL EXPENDITURE

Million Euros



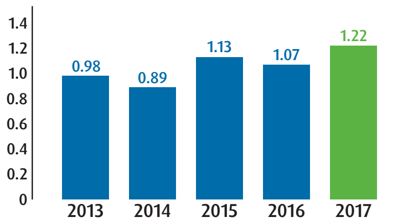
NET FINANCIAL DEBT

Million Euros



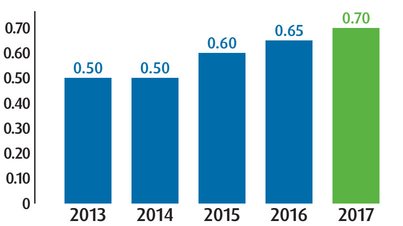
RECURRING EPS

Euros



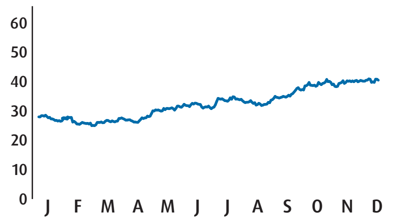
GROSS DIVIDEND

Euros



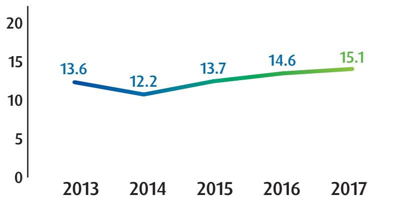
SHARE PRICE

Euros



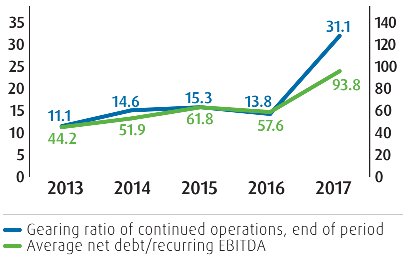
RETURN ON CAPITAL EMPLOYED (ROCE)

%



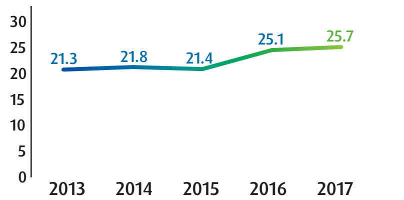
GEARING RATIO & AVERAGE NET DEBT/RECURRING EBITDA

%



RECURRING TAX RATE

%

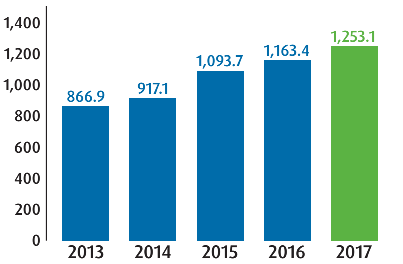


CATALYSIS

(in millions of Euros unless stated otherwise)	2013	2014	2015	2016	2017
Total turnover	2,020.2	2,181.3	2,749.3	2,779.1	3,090.6
Total revenues (excluding metal)	866.9	917.1	1,093.7	1,163.4	1,253.1
Recurring EBITDA	112.8	124.9	172.3	203.4	224.4
Recurring EBIT	73.3	82.6	124.2	152.5	165.5
of which associates	2.5	7.0	8.8	9.2	0.4
Total EBIT	73.7	79.9	115.9	125.6	161.2
Recurring EBIT margin (in %)	8.2	8.2	10.6	12.3	13.2
R&D expenditure	82.0	83.2	91.1	102.0	119.8
Capital expenditure	84.4	59.8	78.7	46.5	45.0
Capital employed, end of period	809.5	851.4	968.2	911.2	1,149.6
Capital employed, average	804.6	811.4	929.6	917.7	1,014.3
Return on Capital Employed (ROCE) (in %)	9.1	10.2	13.4	16.6	16.3
Workforce, end of period (fully consolidated)	2,173	2,290	2,443	2,464	2,952
Workforce, end of period (associates)	167	167	168	177	-

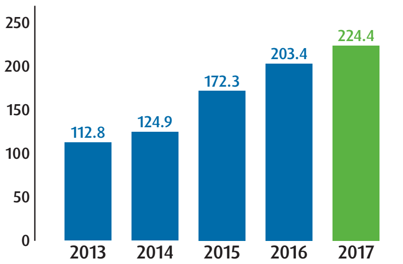
REVENUES (EXCLUDING METAL)

Million Euros



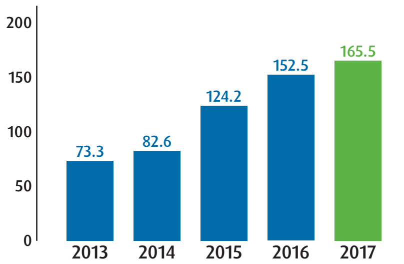
RECURRING EBITDA

Million Euros



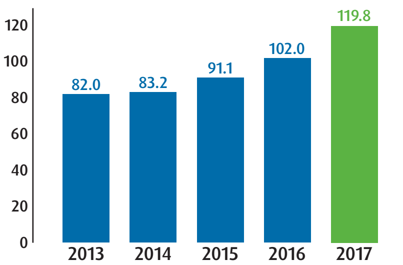
RECURRING EBIT

Million Euros



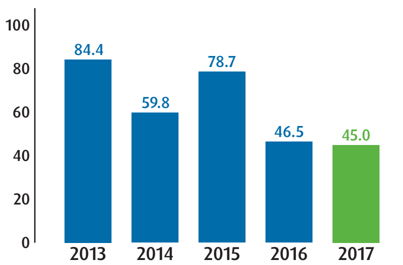
R&D EXPENDITURE

Million Euros



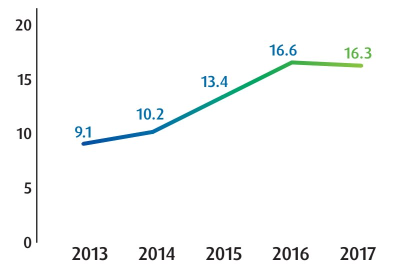
CAPITAL EXPENDITURE

Million Euros



RETURN ON CAPITAL EMPLOYED (ROCE)

%

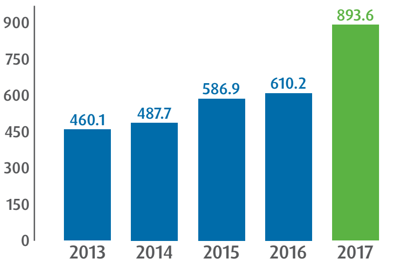


ENERGY & SURFACE TECHNOLOGIES

(in millions of Euros unless stated otherwise)	2013	2014	2015	2016	2017
Total turnover	1,132.3	1,191.6	1,475.1	1,469.0	2,392.4
Total revenues (excluding metal)	460.1	487.7	586.9	610.2	893.6
Recurring EBITDA	72.1	90.4	112.6	131.6	197.7
Recurring EBIT	40.0	54.1	70.2	81.7	140.7
of which associates	2.7	4.7	(3.5)	1.0	10.5
Total EBIT	36.6	53.4	37.3	74.2	109.7
Recurring EBIT margin (in %)	8.1	10.1	12.6	13.2	14.6
R&D expenditure	18.6	19.9	20.3	20.2	30.4
Capital expenditure	65.6	46.6	42.5	144.3	225.5
Capital employed, end of period	502.8	618.6	633.4	752.0	1,205.8
Capital employed, average	512.5	535.8	640.0	695.3	977.9
Return on Capital Employed (ROCE) (in %)	7.8	10.1	11.0	11.7	14.4
Workforce, end of period (fully consolidated)	2,061	2,181	2,258	2,357	2,716
Workforce, end of period (associates)	1,056	930	936	847	917

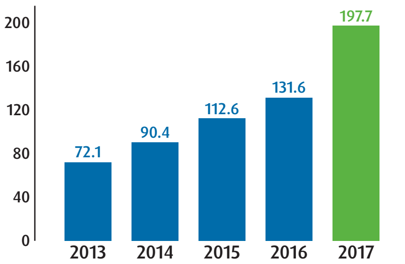
REVENUES (EXCLUDING METAL)

Million Euros



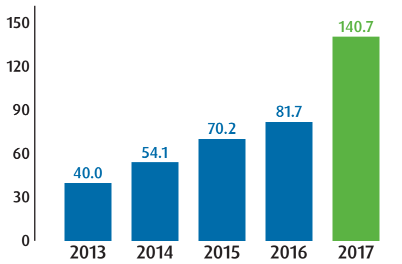
RECURRING EBITDA

Million Euros



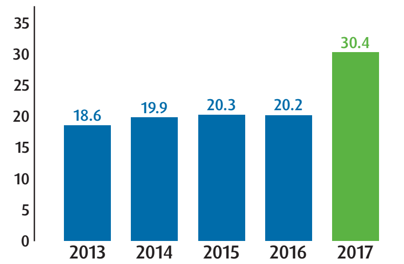
RECURRING EBIT

Million Euros



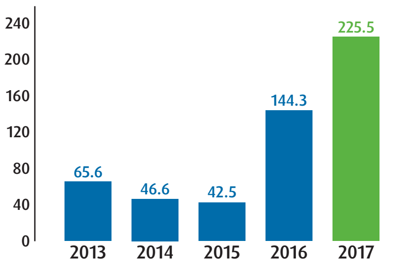
R&D EXPENDITURE

Million Euros



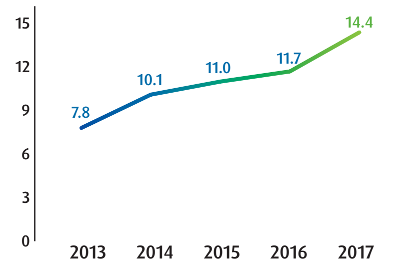
CAPITAL EXPENDITURE

Million Euros



RETURN ON CAPITAL EMPLOYED (ROCE)

%

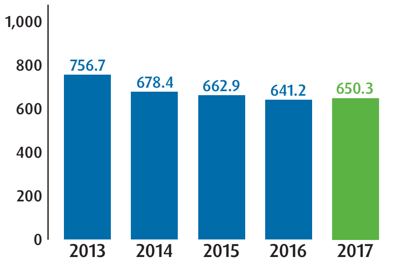


RECYCLING

(in millions of Euros unless stated otherwise)	2013	2014	2015	2016	2017
Total turnover	6,603.4	5,326.2	6,252.1	6,886.4	7,326.7
Total revenues (excluding metal)	756.7	678.4	662.9	641.2	650.3
Recurring EBITDA	278.3	208.7	204.3	187.2	188.9
Recurring EBIT	220.5	148.6	141.5	124.9	127.9
Total EBIT	220.5	141.2	132.5	115.5	121.3
Recurring EBIT margin (in %)	29.2	21.9	21.3	19.5	19.7
R&D expenditure	23.7	24.3	21.2	23.0	18.6
Capital expenditure	93.7	63.8	83.0	72.3	79.5
Capital employed, end of period	520.5	411.7	465.9	498.1	474.5
Capital employed, average	496.1	472.6	460.2	474.5	494.9
Return on Capital Employed (ROCE) (in %)	44.4	31.4	30.7	26.3	25.8
Workforce, end of period (fully consolidated)	3,304	3,302	3,211	3,170	3,092

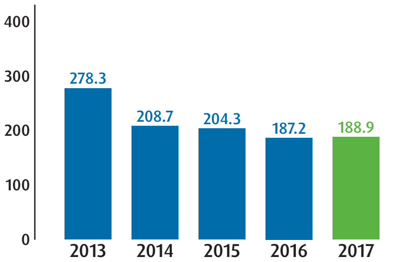
REVENUES (EXCLUDING METAL)

Million Euros



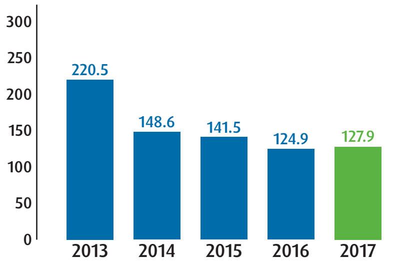
RECURRING EBITDA

Million Euros



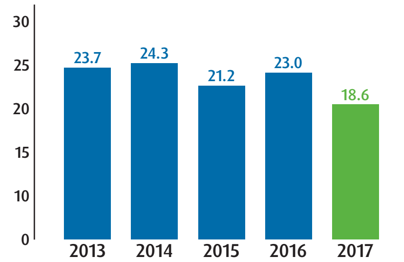
RECURRING EBIT

Million Euros



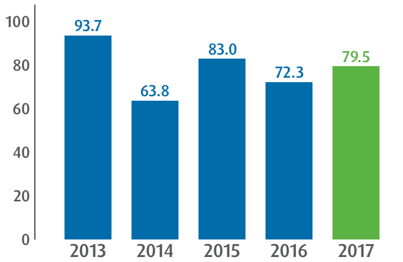
R&D EXPENDITURE

Million Euros



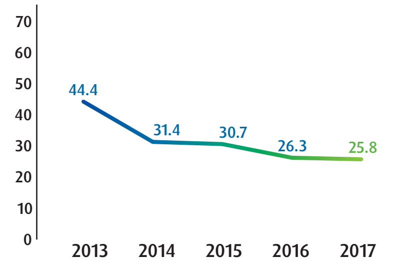
CAPITAL EXPENDITURE

Million Euros



RETURN ON CAPITAL EMPLOYED (ROCE)

%

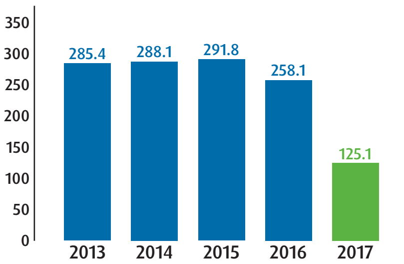


DISCONTINUED OPERATIONS

(in millions of Euros unless stated otherwise)	2013	2014	2015	2016	2017
Total turnover	647.4	709.0	744.7	652.6	330.4
Total revenues (excluding metal)	285.4	288.1	291.8	258.1	125.1
Recurring EBITDA	28.3	36.9	39.6	30.7	12.4
Recurring EBIT	9.8	19.1	31.0	30.6	12.4
of which associates	0.4	1.3	0.7	0.9	0.9
Total EBIT	(6.8)	19.7	19.6	(34.2)	1.6
Recurring EBIT margin (in %)	3.3	6.2	10.4	11.5	9.2
R&D expenditure	3.0	3.4	3.0	3.1	1.6
Capital expenditure	21.5	21.3	27.5	14.5	3.3
Capital employed, end of period	231.2	264.2	199.3	99.2	0.0
Capital employed, average	244.4	251.2	207.6	153.1	71.0
Return on Capital Employed (ROCE) (in %)	4.0	7.6	14.9	20.0	17.5
Workforce, end of period (fully consolidated)	1,545	1,505	1,517	946	–
Workforce, end of period (associates)	502	501	508	420	–

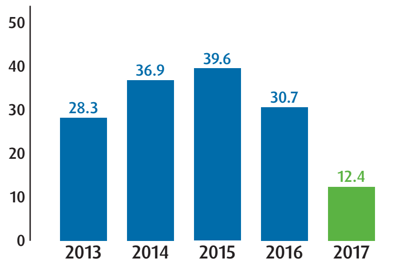
REVENUES (EXCLUDING METAL)

Million Euros



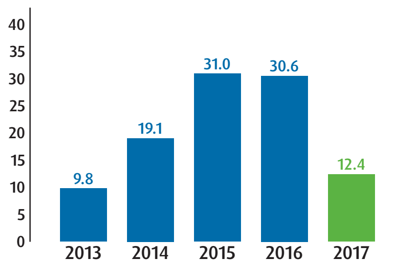
RECURRING EBITDA

Million Euros



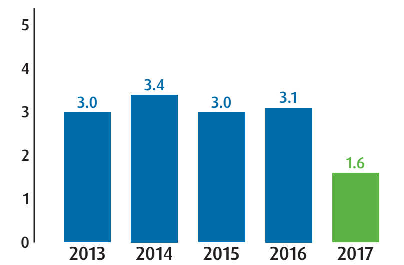
RECURRING EBIT

Million Euros



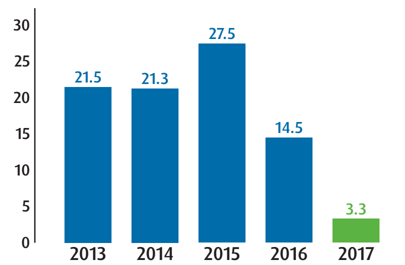
R&D EXPENDITURE

Million Euros



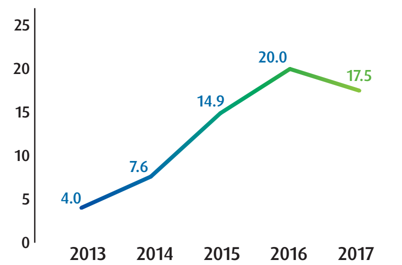
CAPITAL EXPENDITURE

Million Euros



RETURN ON CAPITAL EMPLOYED (ROCE)

%



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CONSOLIDATED INCOME STATEMENT

Thousands of Euros	NOTES	2016	2017
Turnover	F9	10,443,541	11,947,264
Other operating income	F9	59,813	71,965
Operating income		**10,503,354**	**12,019,229**
Raw materials and consumables	F9	(9,040,437)	(10,324,428)
Payroll and related benefits	F10	(636,071)	(700,706)
Depreciation and impairments	F9	(192,278)	(203,703)
Other operating expenses	F9	(379,664)	(470,015)
Operating expenses		**(10,248,451)**	**(11,698,853)**
Income (loss) from other financial assets	F12	(5,937)	(8,286)
RESULT FROM OPERATING ACTIVITIES		**248,966**	**312,090**
Financial income	F11	4,829	4,354
Financial expenses	F11	(19,962)	(34,813)
Foreign exchange gains and losses	F11	(2,535)	(6,864)
Share in result of companies accounted for using the equity method	F17	16,786	29,555
Profit (loss) before income tax		**248,084**	**304,322**
Income taxes	F13	(56,420)	(75,178)
Profit (loss) from continuing operations		191,663	229,143
Profit (loss) from discontinued operations (*)	F42	(50,303)	(2,893)
PROFIT (LOSS) OF THE PERIOD		**141,360**	**226,251**
of which minority share		10,636	14,308
of which Group share		130,724	211,943
Euro			
Basic earnings per share from continuing operations	F39	0.83	0.98
Total basic earnings per share	F39	0.60	0.97
Diluted earnings per share from continuing operations	F39	0.83	0.97
Total diluted earnings per share	F39	0.60	0.96
Dividend per share		0.65	0.70

(*) Attributable to equity holders of these companies.

The notes on pages 97 to 170 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Thousands of Euros	NOTES	2016	2017
Profit (loss) of the period from continuing operations		**191,663**	**229,143**
Items in other comprehensive income that will not be reclassified to P&L			
Changes due to remeasurements of post employment benefit obligations		(27,638)	6,464
Changes in deferred taxes directly recognised in other comprehensive income		6,018	(4,167)
Items in other comprehensive income that may be subsequently reclassified to P&L			
Changes in available-for-sale financial assets reserves		111	3,738
Changes in cash flow hedge reserves		35,991	15,278
Changes in deferred taxes directly recognised in other comprehensive income		(10,483)	(2,286)
Changes in currency translation differences		30,226	(83,661)
Other comprehensive income from continuing operations	F23	**34,225**	**(64,635)**
Total comprehensive income from discontinued operations		(55,378)	(3,421)
Total comprehensive income for the period		**170,510**	**161,087**
of which Group share		158,249	148,903
of which minority share		12,261	12,184

The deferred tax impact on the consolidated statement of comprehensive income is due to the cash flow hedge reserves for € (2.3) million and to employee benefit reserves for € (4.2) million.
The notes on pages 97 to 170 are an integral part of these consolidated financial statements.

CONSOLIDATED BALANCE SHEET

Thousands of Euros	NOTES	31/12/2016	31/12/2017
Non-current assets		**1,727,409**	**1,945,675**
Intangible assets	F14, F15	305,340	328,808
Property, plant and equipment	F16	1,070,403	1,301,411
Investments accounted for using the equity method	F17	195,332	153,008
Available-for-sale financial assets	F18	26,414	22,331
Loans granted	F18	1,201	11,285
Trade and other receivables	F20	11,114	14,146
Deferred tax assets	F21	117,605	114,686
Current assets		**2,164,857**	**3,169,985**
Loans granted	F18	14,787	1,750
Inventories	F19	1,188,822	1,628,423
Trade and other receivables	F20	844,271	1,335,661
Income tax receivables		32,517	36,036
Cash and cash equivalents	F22	84,460	168,115
Assets of discontinued operations	F42	**253,484**	**-**
TOTAL ASSETS		**4,145,751**	**5,115,661**
Equity of the Group		**1,848,045**	**1,862,637**
Group shareholders' equity		**1,829,014**	**1,803,034**
Share capital and premiums		502,862	502,862
Retained earnings		1,559,969	1,584,442
Currency translation differences and other reserves	F23	(144,200)	(202,517)
Treasury shares		(89,616)	(81,754)
Minority interest		**58,446**	**59,603**
Elements of comprehensive income of discontinued operations		**(39,417)**	**-**
Non-current liabilities		**491,290**	**1,168,752**
Provisions for employee benefits	F27	337,907	342,813
Financial debt	F24	24,394	694,104
Trade and other payables	F25	41,656	40,442
Deferred tax liabilities	F21	6,924	3,540
Provisions	F29, F30	80,409	87,853
Current liabilities		**1,661,512**	**2,084,272**
Financial debt	F24	400,786	313,868
Trade and other payables	F25	1,161,371	1,639,817
Income tax payable		57,666	62,830
Provisions	F29, F30	41,690	67,759
Liabilities of discontinued operations	F42	**144,908**	**-**
TOTAL EQUITY & LIABILITIES		**4,145,751**	**5,115,661**

The notes on pages 97 to 170 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Thousands of Euros	SHARE CAPITAL & PREMIUMS	RESERVES	CURRENCY TRANSLATION & OTHER RESERVES	TREASURY SHARES	MINORITY INTEREST	TOTAL FOR CONTINUING OPERATIONS	ELEMENTS OF COMPREHENSIVE INCOME OF DISCONTINUED OPERATIONS	TOTAL EQUITY
Balance at the beginning of 2016	**502,862**	**1,501,290**	**(175,518)**	**(129,913)**	**52,577**	**1,751,299**	**33,671**	**1,784,970**
Result of the period	–	181,203	–	–	10,460	191,663	(50,303)	141,360
Other comprehensive income for the period	–	–	32,513	–	1,712	34,225	(5,075)	29,150
Total comprehensive income for the period	**–**	**181,203**	**32,513**	**–**	**12,172**	**225,888**	**(55,378)**	**170,510**
Changes in share-based payment reserves	–	–	3,820	–	–	3,820	–	3,820
Dividends	–	(141,769)	–	–	(4,747)	(146,515)	–	(146,515)
Transfers	–	6,839	(9,094)	2,255	–	–	–	–
Changes in treasury shares	–	–	–	38,041	–	38,041	–	38,041
Changes in scope	–	12,405	4,079	–	(1,557)	14,927	(17,708)	(2,781)
Balance at the end of 2016	**502,862**	**1,559,969**	**(144,200)**	**(89,616)**	**58,446**	**1,887,460**	**(39,416)**	**1,848,045**
Result of the period	–	214,836	–	–	14,308	229,144	(2,893)	226,251
Other comprehensive income for the period	–	–	(62,511)	–	(2,124)	(64,635)	(528)	(65,163)
Total comprehensive income for the period	**–**	**214,836**	**(62,511)**	**–**	**12,184**	**164,509**	**(3,421)**	**161,088**
Changes in share-based payment reserves	–	–	6,418	–	–	6,418	–	6,418
Dividends	–	(147,796)	–	–	(5,640)	(153,436)	–	(153,436)
Transfers	–	4,512	(6,402)	1,890	–	–	–	–
Changes in treasury shares	–	–	–	5,972	–	5,972	–	5,972
Changes in scope	–	(47,079)	4,178	–	(5,386)	(48,287)	42,837	(5,450)
Balance at the end of 2017	**502,862**	**1,584,442**	**(202,517)**	**(81,754)**	**59,603**	**1,862,637**	**–**	**1,862,637**

The legal reserve of € 50.0 million which is included in the retained earnings is not available for distribution.

On 16 October 2017, each Umicore share was split into two new shares. Therefore, the share capital of the Group as at 31 December 2017 was composed of 224,000,000 shares with no par value.

The notes on pages 97 to 170 are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOW

Thousands of Euros	NOTES	2016	2017
Profit (loss) from continuing operations		191,664	229,144
Adjustments for profit of equity companies		(16,786)	(29,554)
Adjustment for non-cash transactions	F34	188,912	190,714
Adjustments for items to disclose separately or under investing and financing cash flows	F34	66,731	98,274
Change in working capital requirement	F34	13,253	(275,509)
Cash flow generated from operations		**443,778**	**213,070**
Dividend received		8,517	15,333
Tax paid during the period		(65,301)	(74,449)
Government grants received		(2,270)	(642)
NET OPERATING CASH FLOW	F34	**384,723**	**153,313**
Acquisition of property, plant and equipment	F16	(207,017)	(351,056)
Acquisition of intangible assets	F14	(80,764)	(25,621)
Acquisition of new subsidiaries, net of cash acquired	F8	–	(211,508)
Acquisition of financial assets	F18	(8,554)	(119)
New loans extended	F18	(13,000)	(9,889)
Sub-total acquisitions		**(309,336)**	**(598,194)**
Disposal of property, plant and equipment		4,337	5,414
Disposal of intangible assets		778	1,438
Disposal of subsidiaries and associates, net of cash disposed		138,604	74,189
Disposal of financial fixed assets		5,491	443
Repayment of loans	F18	750	20,033
Internal transfers	F34	(49,261)	–
Sub-total disposals		**100,698**	**101,516**
NET CASH FLOW GENERATED BY (USED IN) INVESTING ACTIVITIES	F34	**(208,638)**	**(496,678)**
Capital increase (decrease) minority		–	416
Own shares		38,041	5,972
Interest received		3,258	4,027
Interest paid		(9,667)	(18,398)
New loans and repayments		6,490	562,072
Dividends paid to Umicore shareholders		(138,266)	(150,682)
Dividends paid to minority shareholders		(4,747)	(5,640)
NET CASH FLOW GENERATED BY (USED IN) FINANCING ACTIVITIES	F34	**(104,891)**	**397,768**
Effect of exchange rate fluctuations		1,401	13,997
TOTAL NET CASH FLOW OF THE PERIOD		**72,596**	**68,400**
Net cash and cash equivalents at the beginning of the period for continuing operations	F22	**66,167**	**71,275**
Impact of final financing carved out entities		**(67,488)**	**16,223**
Net cash and cash equivalents at the end of the period for continuing operations	F22	**71,275**	**155,898**
Cash for discontinued operations		**45,325**	**–**
of which cash and cash equivalents		129,785	168,115
of which bank overdrafts		(13,185)	(12,217)

The notes on pages 97 to 170 are an integral part of these consolidated financial statements.

Notes to the consolidated financial statements

The company's consolidated financial statements and the management report prepared in accordance with article 119 of the Belgian Companies Code set forth on pages 1-50 and 86-171, for the year ended 31 December 2017 were authorised for issue by the Board of Directors on 16 March 2018. They have been prepared in accordance with the legal and regulatory requirements applicable to the consolidated financial statements of Belgian companies. They include those of the company, its subsidiaries and its interests in companies accounted for using the equity method.

F1 BASIS OF PREPARATION

The Group presents its annual consolidated financial statements in accordance with all International Financial Reporting Standards (IFRS) adopted by the European Union (EU).

The consolidated financial statements are presented in thousands of Euros, rounded to the nearest thousand, and have been prepared on a historical cost basis, except for those items that are measured at fair value.

F2 ACCOUNTING POLICIES

2.1 PRINCIPLES OF CONSOLIDATION AND SEGMENTATION

2.1.1 SUBSIDIARIES

Subsidiaries are all entities (including structured entities) over which the group has control. The group controls an entity when the group 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. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are deconsolidated from the date that control ceases.

Note F5 lists all significant subsidiaries of the company at the closing date.

The group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The group recognises any minority interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the minority interest's proportionate share of the recognised amounts of acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurement are recognised in profit or loss.

Any contingent consideration to be transferred by the group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

Inter-company transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated. When necessary, amounts reported by subsidiaries have been adjusted to conform with the group's accounting policies.

IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations) does not specify the treatment for the elimination of inter-company transactions between discontinued and continued operations. As an accounting policy Umicore opts to not eliminate the intercompany transactions within the income statement between the discontinued and continued operations. For the balance sheet presentation however, IFRS 10 (Consolidated Financial Statements) overrides IFRS 5 and requires all intercompany balances to be eliminated including between the discontinued and continued operations.

2.1.2 CHANGES IN OWNERSHIP INTERESTS IN SUBSIDIARIES WITHOUT CHANGE OF CONTROL

Transactions with minority interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the owners in their capacity as owners. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to minority interests are also recorded in equity.

2.1.3 DISPOSAL OF SUBSIDIARIES

When the group ceases to have control, any retained interest in the entity is re-measured to its fair value at the date when control is lost, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss.

2.1.4 ASSOCIATES

Associates are all entities over which the group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The group's investment in associates includes goodwill identified on acquisition. If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. The group's share of post-acquisition profit or loss is recognised in the income statement, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the group does not recognise further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate. The group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to "share of profit/(loss) of associates" in the income statement.

Profits and losses resulting from upstream and downstream transactions between the group and its associate are recognised in the group's financial statements only to the extent of unrelated investor's interests in the associates. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the group. Dilution gains and losses arising in investments in associates are recognised in the income statement.

2.1.5 JOINT ARRANGEMENTS

The group applies IFRS 11 to all joint arrangements. Under IFRS 11 investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor. The group has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method. Under the equity method of accounting, interests in joint ventures are initially recognised at cost and adjusted thereafter to recognise the group's share of the post-acquisition profits or losses and movements in other comprehensive income.

When the group's share of losses in a joint venture equals or exceeds its interests in the joint ventures (which includes any long-term interests that, in substance, form part of the group's net investment in the joint ventures), the group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint ventures.

Unrealised gains on transactions between the group and its joint ventures are eliminated to the extent of the group's interest in the joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the group.

2.1.6 SEGMENT REPORTING

Note F7 provides the Company's segment information, in line with IFRS 8. Umicore is organised in business units. Operating segments under IFRS 8 at Umicore are differentiated by their growth drivers in the area's of Catalysis, Energy & Surface Technologies, and Recycling.

The Catalysis segment provides automotive catalysts for gasoline and diesel light and heavy duty diesel applications, including on-road and non-on-road vehicles. The business group also offers stationary catalysis for industrial emissions control and produces precious metals-based compounds and catalysts for use in the pharmaceutical and fine chemicals industries. The Energy & Surface Technologies segment is focused on products that are found in applications used in the production and storage of clean energy and in a range of applications for surface technologies that bring specific properties and functionalities to end products. All the activities offer a closed loop service for the customers. The Recycling segment treats complex waste streams containing precious and other specialty metals. The operations can recover 20 of these metals from a wide range of input materials ranging from industrial residues to end-of-life materials. Other activities include production of precious metals-based materials that are essential for applications as diverse as high-tech glass production, electrics and electronics.

Corporate covers corporate activities, shared operational functions and the Group's Research, Development & Innovation unit. Umicore's minority share in Element Six Abrasives and Ieqsa is also included in Corporate.

Operating segments are reported in a manner consistent with the internal reporting provided to the board and the executive committee.

The segment results, assets and liabilities include items directly attributable to the segment as well as those elements that can reasonably be allocated to a segment.

The pricing of inter-segment sales is based on an arm's length transfer pricing system. In the absence of relevant market price references, "cost plus" mechanisms are used.

Associate companies are allocated to the business group with the closest fit from a market segment perspective.

2.2 INFLATION ACCOUNTING

For the reported period, there is no subsidiary in the Umicore Group having a functional currency belonging to a hyperinflationary economy.

2.3 FOREIGN CURRENCY TRANSLATION

Functional currency: items included in the financial statements of each entity in the Group are measured using the currency that best reflects the economic substance of the underlying events and circumstances relevant to that entity. The consolidated financial statements are presented in € which is the functional currency of the parent. To consolidate the Group and each of its subsidiaries, the financial statements are translated as follows:

- Assets and liabilities at the year-end rate as published by the European Central Bank.
- Income statements at the average exchange rate for the year.
- The components of shareholders' equity at the historical exchange rate.

Exchange differences arising from the translation of the net investment in foreign subsidiaries, joint ventures and associated entities at the period-end exchange rate are recorded as part of the shareholders' equity under "currency translation differences".

When a foreign operation is partially disposed of or sold, exchange differences that were recorded in equity are recognised in the income statement as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as local currency assets and liabilities of the foreign entity and are translated at the closing rate.

2.4 FOREIGN CURRENCY TRANSACTIONS

Foreign currency transactions are recognised during the period in the functional currency of each entity at exchange rates prevailing at the date of transaction. The date of a transaction is the date at which the transaction first qualifies for recognition. For practical reasons a rate that approximates the actual rate at the date of the transaction is used at some operations, for example, an average rate for the week or the month in which the transactions occur.

Subsequently, monetary assets and liabilities denominated in foreign currencies are translated at the closing rate at the end of the reporting period.

Gains and losses resulting from the settlement of foreign currency transactions, and from the translation of monetary assets and liabilities denominated in foreign currencies, are recognised in the income statement as a financial result.

In order to hedge its exposure to certain foreign exchange risks, the Company has entered into certain forward contracts (see Chapter 2.21 Financial instruments).

2.5 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is recorded at historical cost, less accumulated depreciation and impairment losses. Cost includes all direct costs and appropriate allocation of indirect costs incurred to bring the asset to working condition for its intended use.

Borrowing costs that are directly attributable to investments are capitalised together with the costs of the assets in accordance with IAS 23. All borrowing costs that cannot be linked directly to an investment are recognised as expenses in the period when incurred.

The straight-line depreciation method is applied through the estimated useful life of the assets. Useful life is the period of time over which an asset is expected to be used by the company.

Repair and maintenance costs are expensed in the period in which they are incurred, if they do not increase the future economic benefits of the asset. Otherwise they are classified as separate components of items of property, plant and equipment. Those major components of items of property, plant and equipment that are replaced at regular intervals are accounted for as separate assets as they have useful lives different from those items of property, plant and equipment to which they relate. Umicore's PPE, being complex and highly customised industrial assets, typically do not have an individual resale value if put outside the overall context of the operations. Therefore no residual value is taken into account when determining the depreciable value.

The typical useful life per main type of property, plant and equipment are as follows:

For material newly acquired or constructed assets, the useful life is separately assessed at the moment of the investment request and can deviate from the above standards.

Management determines the estimated useful lives and related depreciation charges for property, plant and equipment. Management uses standard estimates based on a combination of physical durability and projected product life or industry life cycles. These useful lives could change significantly as a result of technical innovations, market developments or competitor actions. Management will increase the depreciation charge where useful lives are shorter than previously estimated, or it will write-off or write-down technically obsolete or non-strategic assets that have been abandoned or sold.

Land use rights are part of the Property, Plant and Equipment and are typically amortised over the contractual period.

	YEARS
Land	Non-depreciable
Buildings	
Industrial buildings	20
Improvements to buildings	10
Other buildings such as offices and laboratories	40
Investment properties	40
Plant, machinery and equipment	10
Furnaces	7
Small equipment	5
Furniture and vehicles	
Vehicles	5
Mobile handling equipment	7
Computer equipment	3–5
Furniture and office equipment	5–10

2.6 INTANGIBLE ASSETS & EQUITY TRANSACTION EXPENSES

2.6.1 EQUITY TRANSACTION EXPENSES

Expenses for formation and capital increase are deducted from the share capital.

2.6.2 GOODWILL

Goodwill represents the excess of the cost of an acquisition of a subsidiary, associate or jointly controlled entity over the Group's share in the fair value of the identifiable assets and liabilities of the acquired entity at the date of acquisition. Goodwill is recognised at cost less any accumulated impairment losses.

Goodwill from associates and joint ventures is presented in the balance sheet on the line "Investments accounted for under the equity method", together with the investment itself.

To assess impairment, goodwill is allocated to a cash-generating unit (CGU). At each balance sheet date, these CGUs are tested for impairment, meaning an analysis is performed to determine whether the carrying amount of goodwill allocated to the CGU is fully recoverable. If the carrying amount is not fully recoverable, an appropriate impairment loss is recognised in the income statement. These impairment losses are never reversed.

The excess of the Group's interest in the fair value of the net identifiable assets acquired over the cost of acquisition is recognised in the income statement immediately.

2.6.3 RESEARCH AND DEVELOPMENT

Research costs related to the prospect of gaining new scientific or technological knowledge and understanding are recognised in the income statement as an incurred expense.

Development costs are defined as costs incurred for the design of new or substantially improved products and for the processes prior to commercial production or use. They are capitalised if, among others, the following conditions are met:

- the intangible asset will give rise to future economic benefits, or in other words, the market potential has been clearly demonstrated.
- the expenditures related to the process or product can be clearly identified and reliably measured.

In case it is difficult to clearly distinguish between research or development costs, the costs are considered as being research. If development costs are capitalised they are amortised using a straight-line method over the period of their expected benefit, in general five years.

2.6.4 CO_2 EMISSION RIGHTS

Within the framework of the Kyoto protocol, a third emission trading period started, covering 2013-2020. Therefore the Flemish Government granted emission rights to the Flemish sites of certain companies, including Umicore. Each year, at the end of February, one fifth of these emission rights is put on an official registry account. The release of emission rights to this registry account entails the capitalisation in the intangible assets, which is in line with the guidance of the Belgian Accounting Standards Commission. Gains on the recognition of emission rights at fair value are deferred until the certificates are used. Emission rights owned are subject to impairment testing but are not depreciated. If, at a certain closing date, it appears that the closing market price is below the carrying value, a write-down is booked. At each closing date, the group estimates the actual use of rights for the period and recognises a provision for the rights that will have to be restituted to the Government. The charge related to the impairment loss or the recognition of provisions are fully compensated in the income statement by the release of deferred revenues. Historically, Umicore owns the required rights to ensure its normal operating activities.

2.6.5 OTHER INTANGIBLE ASSETS

All of the following types are recorded at historical cost, less accumulated amortisation and impairment losses:

- Concessions, patents, licences: are amortised over the period of their legal protection with a minimum of 5% (in general over 5 years).
- Customer portfolios: are typically amortised over a period of five years.
- ERP software is typically amortised over a period of 10 years.
- Smaller software is typically amortised over a period of five years.

In case of an earn out component, a remeasurement is foreseen, adapting the carrying amount of the asset and the amortisation accordingly.

Umicore has currently no intangible asset with an indefinite useful live.

2.7 LEASE

2.7.1 FINANCIAL LEASE

Leases under which the company assumes a substantial part of the risks and rewards of ownership are classified as financial leases. They are measured at the lower of fair value and the estimated present value of the minimum lease payments at inception of the lease, less accumulated depreciation and impairment losses.

Each lease payment is allocated between the liability and finance charges so as to achieve a constant periodic rate of interest on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are included in long-term payables. The interest element is charged to the income statement over the lease period. Leased assets are depreciated over the shorter of the useful life and the lease term.

2.7.2 OPERATING LEASE

Leases under which a substantial part of the risks and rewards of ownership are effectively retained by the lessor are classified as operating leases. All payments or receipts under operating lease are recognised as an operating expense in the income statement using the straight-line method.

The group leases metals to and from third parties for specified periods for which the group receives or pays fees. Metal lease contracts are typically concluded for less than one year. The metal leases from and to third parties are reported as off-balance sheet commitments.

2.8 AVAILABLE-FOR-SALE FINANCIAL ASSETS, LOANS AND NON-CURRENT RECEIVABLES

All movements in available-for-sale financial assets, loans and receivables are accounted for at trade date.

Financial assets available for sale are carried at fair value. Unrealised gains and losses from changes in the fair value of such assets are recognised in equity as available-for-sale financial assets reserves. When the assets are sold or impaired, the accumulated fair value adjustments are included in the income statement as gains and losses. Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the group has transferred substantially all risks and rewards of ownership.

Loans and receivables are carried at amortised cost less any impairment.

All write-downs are recorded on a separate account and are netted with the carrying amounts when all chances of recovery are depleted. Own shares are deducted from equity.

2.9 INVENTORY

Inventories are carried at the lower of cost or net realisable value. Cost comprises direct purchase or manufacturing costs and an appropriate allocation of overheads.

Inventories are classified as:

1. Base products with metal hedging
2. Base products without metal hedging
3. Consumables
4. Advances paid
5. Contracts in progress

Base products with metal hedging are metal-containing products on which Umicore is exposed to metal price fluctuation risks and where Umicore applies an active and structured risk management process to minimise the potential adverse effects of market price fluctuations on the financial performance of the Group.

The metal contents are classified in inventory categories that reflect their specific nature and business use: a.o. permanently tied up metal inventories and commercially available metal inventories. Depending on the metal inventory category, appropriate hedging mechanisms are applied.

A weighted average is applied per category of inventory.

Base products without metal hedging and consumables are valued using the weighted-average cost method.

Write-downs on inventories are recognised when turnover is slow or where the carrying amount is exceeding the net realisable value, meaning the estimated selling price less the estimated costs of completion and the estimated cost necessary to make the sale. Write-downs are presented separately. Advances paid are down-payments on transactions with suppliers for which the physical delivery has not yet taken place and are booked at nominal value. Contracts in progress are valued using the percentage-of-completion method.

2.10 TRADE AND OTHER RECEIVABLES

Trade and other receivables are measured at amortised cost, i.e. at the net present value of the receivable amount. Unless the impact of discounting is material, the nominal value is taken. Receivables are written down for irrecoverable amounts. All write-downs are recorded on a separate account and are netted with the carrying amounts when all chances of recovery are depleted.

Trade receivables of which substantially all the risks and rewards have been transferred are derecognised from the balance sheet. The positive fair value of derivative financial instruments is included under this heading.

2.11 CASH AND CASH EQUIVALENTS

Cash includes cash-in-hand and cash with banks. Cash equivalents are short-term, highly liquid investments that are readily convertible into known amounts of cash, have maturity dates of three months or less and are subject to an insignificant risk of change in value.

These items are carried in the balance sheet at nominal value or amortised cost. Bank overdrafts are included in the current liabilities on the balance sheet.

2.12 IMPAIRMENT OF NON-FINANCIAL ASSETS

Property, plant and equipment and other non-current assets, including intangible assets and financial assets not held for trading, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated.

The recoverable amount is the higher of an asset's net selling price and value in use. To estimate the recoverable amount of individual assets the company often determines the recoverable amount of the cash-generating unit (CGU) to which the asset belongs.

Whenever the carrying amount of an asset exceeds its recoverable value, an impairment loss is recognised as an expense immediately.

A reversal of impairment losses is recognised when there is an indication that the impairment losses recognised for the asset or for the CGU no longer exist or have decreased. 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.

2.13 SHARE CAPITAL AND RETAINED EARNINGS

A. Repurchase of share capital

   When the company purchases some of its own shares, the consideration paid, including any attributable transaction costs net of income taxes, is deducted from the total shareholders' equity as treasury shares. No gain or loss shall be recognised in profit or loss on the purchase, sale, issue or cancellation of own shares. When such shares are subsequently sold or reissued, any consideration received is included in shareholders' equity.

B. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction from the proceeds of the issue, net of tax.

C. Dividends of the parent company payable on ordinary shares are only recognised as a liability following approval by the shareholders.

2.14 MINORITY INTERESTS

Minority interests include a proportion of the fair value of identifiable assets and liabilities recognised upon acquisition of a subsidiary that is attributable to third parties, together with the appropriate proportion of subsequent profits and losses.

In the income statement, the minority share in the Group's profit or loss is presented separately from the Group's consolidated result.

2.15 PROVISIONS

Provisions are recognised in the balance sheet when:

- There is a present obligation (legal or constructive) as a result of a past event.
- It is probable that an outflow of resources will be required to settle the obligation.
- A reliable estimate can be made on the amount of the obligation.

A constructive obligation is an obligation that derives from company actions where, by an established pattern of past practice or published policies, the company has indicated that it will accept certain responsibilities and, as a result, the company has created a valid expectation that it will discharge those responsibilities.

The amount recognised as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period and taking into account the probability of the possible outcome of the event. Where the effect of the time value of money is material, the amount of a provision is the present value of the expenditure expected to be required to settle the obligation. The result of the yearly discounting of the provision, if any, is accounted for as a financial result.

The main types of provision are the following:

1. PROVISIONS FOR EMPLOYEE BENEFITS (SEE CHAPTER 2.16, EMPLOYEE BENEFITS)

2. ENVIRONMENTAL OBLIGATIONS

Environmental provisions are based on legal and constructive obligations from past events, in accordance with the company's environmental approach and applicable legal requirements. The full amount of the estimated obligation is recognised at the moment the event occurs. When the obligation is production/activity related, the provision is recognised gradually depending on normal usage/production level.

3. OTHER PROVISIONS

Includes provisions for litigation, onerous contracts, warranties, exposure to equity investments and restructuring. A provision for restructuring is recognised when the company has approved a detailed and formal restructuring plan and the restructuring has either commenced or has been announced publicly before the end of the reporting period. Any restructuring provision only includes the direct expenditure arising from the restructuring which is necessarily entailed and is not associated with the ongoing activities of the Company.

2.16 EMPLOYEE BENEFITS

2.16.1 SHORT-TERM EMPLOYEE BENEFITS

These include wages, salaries and social security contributions, paid annual leave and sick leave, bonuses and non-monetary benefits, and are taken as an expense in the relevant period. All company managers are eligible for bonuses that are based on indicators including personal performance and key financial targets. The amount of the bonus is recognised as an expense, based on an estimation made at the end of the reporting period.

2.16.2 POST EMPLOYMENT BENEFITS (PENSIONS, MEDICAL CARE)

The company has various pension and medical care schemes in accordance with the conditions and practices of the countries it operates in. The schemes are generally funded through payments to insurance companies or trustee-administered funds.

2.16.2.1 DEFINED BENEFIT PLANS

The company has accounted for all legal and constructive obligations both under the formal terms of defined benefit plans and under the company's informal practices.

The amount presented in the balance sheet is based on actuarial calculations (using the projected unit credit method) and represents the present value of the defined benefit obligations and reduced by the fair value of the plan assets.

The past service costs are immediately recognised in the income statement since IAS 19 revised.

All remeasurements as a result of changes in the actuarial assumptions of post-employment defined benefit plans are recognised through other comprehensive income (OCI) in the period in which they occur and are disclosed in the statement of comprehensive income as post employment benefit reserves.

2.16.2.2 DEFINED CONTRIBUTION PLANS

The company pays contributions to publicly or privately administered insurance plans. The payments are recognised as expenses as they fall due and as such are included in personnel costs.

2.16.3 OTHER LONG-TERM EMPLOYEE BENEFITS (JUBILEE PREMIUMS)

These benefits are accrued for their expected costs over the period of employment using an accounting methodology similar to that for defined benefit pension plans. These obligations are in general valued annually by independent qualified actuaries. All remeasurements as a result of changes in the actuarial assumptions are immediately recognised in the income statement.

2.16.4 TERMINATION BENEFITS (PRE-RETIREMENT PLANS, OTHER TERMINATION OBLIGATIONS)

These benefits arise as a result of the company's decision to terminate an employee's employment before the normal retirement date or of an employee's decision to accept voluntary redundancy in exchange for those benefits. When they are reasonably predictable in accordance with the conditions and practices of the countries the company operates in, future obligations are also recognised.

These benefits are accrued for their expected costs over the period of employment, using an accounting methodology similar to that for defined benefit pension plans. In general, these obligations are valued annually by independent qualified actuaries. All remeasurements as a result of changes in the actuarial assumptions are immediately recognised in the income statement.

2.16.5 EQUITY AND EQUITY-RELATED COMPENSATION BENEFITS (SHARE-BASED PAYMENTS IFRS 2)

Different stock option and share programmes allow company employees and company senior management to acquire or obtain shares of the company.

The option or share exercise price equals the market price of the (underlying) shares at the date of the grant. When the options are exercised, shares are delivered to the beneficiaries from existing own shares. For the share programmes, shares are delivered to the beneficiaries from existing own shares. In both cases, the equity is increased by the amount of the proceeds received corresponding to the exercise price.

The options and shares are typically vested at the moment of the grant and their fair value is recognised as an employee benefit expense with a corresponding increase in equity as share-based payment reserves. For the options, the expense to be recognised is calculated by an actuary, using a valuation model which takes into account all features of the stock options, the volatility of the underlying stock and an assumed exercise pattern.

As long as the options granted have not been exercised, their value is reported in the Statement of Changes in Equity as "share-based payments reserve". The value of the options exercised during the period is transferred to "retained earnings".

2.16.6 PRESENTATION

The impact of employee benefits on results is booked under operating results in the income statement, except for the interest and discount rate impacts which are classified under financial results.

2.17 FINANCIAL LIABILITIES

All movements in financial liabilities are accounted for at trade date.

Borrowings are initially recognised as proceeds received, net of transaction costs. Subsequently they are carried at amortised cost using the effective interest rate method. Amortised cost is calculated by taking into account any issue costs, and any discount or premium on issue. Any differences between cost and redemption value are recognised in the income statement upon redemption.

2.18 TRADE AND OTHER PAYABLES

Trade payables are measured at amortised cost, i.e. at the net present value of the payable amount. Unless the impact of discounting is material, the nominal value is taken.

The negative fair value of derivative financial instruments is included under this heading.

2.19 INCOME TAXES

Taxes on profit or loss of the year include current and deferred tax. Such taxes are calculated in accordance with the tax regulations in effect in each country the company operates in.

Current tax is the expected tax payable on the taxable income of the year, using tax rates enacted at the end of the reporting period, and any adjustment to tax payable (or receivable) in respect of previous years.

The tax payable is determined based on tax laws and regulations that apply in each of the numerous jurisdiction in which the Group operates. The income tax positions taken are considered by the Group to be supportable and are intended to withstand challenge from tax authorities. However it is accepted that some of the position can be uncertain and include interpretation of complex tax laws. Furthermore, some subsidiaries within the Group can be involved in tax audits usually in relation to prior years that can take time to conclude. The Group assesses its tax position individually and on a regular basis and if the tax payable differs from the amounts initially estimated then the difference is charged or credited in the accounts for the year in which it is determined.

Deferred taxes are calculated using the liability method on temporary differences arising between the tax base of assets and liabilities and their carrying amounts in the financial statements. These taxes are measured using the rate prevailing at the end of the reporting period or future applicable tax rates formally announced by the government in the country the Company operates in.

Deferred tax assets are only recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset and presented net only if they relate to income taxes levied by the same taxation authority on the same taxable entity.

2.20 REVENUES RECOGNITION

2.20.1 GOODS SOLD AND SERVICES RENDERED

Revenues from the sale of goods in transformation activities is recognised when significant risks and rewards of ownership have been transferred to the buyer, and no significant uncertainties remain regarding recovery of the consideration due, associated costs or the possible return of the goods.

Revenues from refining activities and services rendered is recognised by reference to the stage of completion of the transaction when this can be measured reliably.

2.20.2 GOVERNMENT GRANTS

A government grant is accounted for in the balance sheet initially as deferred income when there is reasonable assurance that it will be received and that the company will comply with the conditions attached to it. Grants are recognised in the income statement over the period necessary to match them with the costs they are intended to compensate.

2.21 FINANCIAL INSTRUMENTS

The company uses derivative financial and commodity instruments primarily to reduce the exposure to adverse fluctuations in foreign exchange rates, commodity prices, interest rates and other market risks. The company uses mainly spot and forward contracts to cover the metal and currency risk, and swaps to hedge the interest rate risk. The operations carried out on the futures markets are not of a speculative nature.

2.21.1 TRANSACTIONAL RISKS – FAIR VALUE HEDGING

Derivative financial and commodity instruments are used for the protection of the fair value of underlying hedged items (assets, liabilities and firm commitments) and are recognised initially at fair value at trade date.

All derivative financial and commodity instruments are subsequently measured at fair value at the end of the reporting period via the "Mark-to-Market" mechanism. All gains and losses are immediately recognised in the income statement – as an operating result, if commodity instruments, and as a financial result in all other cases.

The hedged items (physical commitments and commercial inventory, primarily) are valued at fair value when hedge accounting can be documented according to the criteria set out in IAS 39.

In the absence of obtaining fair value hedge accounting at inception as defined under IAS 39, the hedged items are kept at cost and are submitted to the valuation rules applicable to similar non-hedged items, i.e. the recognition at the lower of cost or market (IAS 2) for inventories, or the recognition of provisions for onerous contracts (IAS 37) for physical commitments (see also Chapter 2.22 – IAS 39 impact).

When there is a consistent practice of trading of metals through the use of commodity contracts by a dedicated subsidiary or a cash-generating unit (CGU) of the Group and by which the entity takes delivery of the underlying commodity to sell it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or trading margins, the inventory is valued at fair value through the income statement and the related physical and/or commodity commitments are classified as derivatives and measured at fair value through the income statement.

2.21.2 STRUCTURAL RISKS – CASH FLOW HEDGING

Derivative financial and commodity instruments used for the protection of future cash flows are designated as hedges under cash flow hedge accounting. The effective portion of changes in the fair value of hedging instruments which qualify as cash flow hedges are recognised in the shareholders' equity as hedging reserves until the underlying forecasted or committed transactions occur (i.e. affect the income statement). At that time the recognised gains and losses on the hedging instruments are transferred from equity to the income statement.

When the underlying hedged transactions are no longer probable or the hedges become ineffective, the corresponding hedging instrument will immediately be terminated and all profits or losses including those which were deferred in equity, are immediately recognised in the income statement.

In the absence of obtaining cash-flow hedge accounting at inception as defined under IAS 39, then the fair value of the related hedging instruments is recognised in the income statement instead of the equity and this prior to the occurrence of the underlying forecasted or committed transactions (see also Chapter 2.22 – IAS 39 impact).

2.21.3 EMBEDDED DERIVATIVES

Executory contracts (the "host contract") may sometimes contain embedded derivatives. Embedded derivatives cause some or all of the cash flows that would otherwise be expected from the host contract, to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, or other variable. If it is concluded that such a derivative is not closely related to the host contract, it is separated from the host contract and accounted for under the rules of IAS 39 (fair value through profit or loss). The host contract is accounted for using the rules applicable to executory contracts, which effectively means that such a contract is not recognised in the balance sheet or profit and loss before delivery on the contract takes place (see also Chapter 2.22 – IAS 39 impact).

2.22 NON-RECURRING RESULTS AND IAS 39 EFFECT

Non-recurring results relate primarily to restructuring measures, impairment of assets and other income or expenses arising from events or transactions that are clearly distinct from the ordinary activities of the company.

IAS 39 effect relates to non-cash timing differences in revenues recognition due to the non-application of or non-possibility of obtaining IAS 39 hedge accounting at inception to:

a) Transactional hedges, which implies that hedged items can no longer be measured at fair value and must be submitted to the valuation rules applicable to similar non-hedged items, i.e. the recognition at the lower of cost or market (IAS 2) for inventories, or the recognition of provisions for onerous contracts (IAS 37) for physical commitments.

b) Structural hedges, which implies that the fair value of the related hedging instruments are recognised in the income statement instead of equity and this prior to the occurrence of the underlying forecasted or committed transactions.

c) Derivatives embedded in executory contracts, which implies that fair value on the embedded derivatives are recognised in the income statement as opposed to the executory component where no fair value measurement is allowed.

F3 FINANCIAL RISK MANAGEMENT

Each of the Group's activities is exposed to a variety of risks, including changes in metal prices, foreign currency exchange rates, certain market-defined commercial conditions, and interest rates as well as credit and liquidity risks. The Group's overall risk management programme seeks to minimise the adverse effects on the financial performance of the Group by hedging most of these risks through the use of financial and insurance instruments.

3.1 CURRENCY RISK

Umicore's currency risk can be split into three distinct categories: structural, transactional and translational risks.

3.1.1 STRUCTURAL RISK

A portion of Umicore's revenues are structurally denominated in US dollar (USD), while many of our related operations are located outside the USD zone (particularly in Europe and Asia). Any change in the US dollar exchange rate against the Euro or other currencies which are not pegged to the US dollar will have an impact on our results.

A large portion of such structural currency exposure derives from US dollar denominated metal prices linked to the recycling and refining operations.

Another significant portion of this exposure stems from non-metal related revenues denominated in US dollar such as refining charges or product premia.

Next to the sensitivity US dollar vs Euro there is also a structural and increasing sensitivity to certain other currency couples such as the US dollar (USD) and euro (EUR) vs the Brazilian real (BRL), the Korean won (KRW), the Chinese yuan (CNY) and the South African rand (ZAR).

Structural currency hedging

Umicore's hedging policy allows for hedging forward its structural currency exposure, either in conjunction with the hedging of structural metal price exposure or in isolation, typically when a currency exchange rate or a metal price denominated in Euro is above its historical average and at a level where attractive margins can be secured.

At the end of 2017, Umicore had structural currency hedging in place relating to its non-metal related currency sensitivity for a.o. the following pairs of currencies: EUR/USD, USD/KRW, EUR/ZAR, USD/ZAR, USD/CAD, EUR/CNY and USD/CNY.

3.1.2 TRANSACTIONAL RISK

The company is also subject to transactional risks in respect of currencies, i.e. the risk of currency exchange rates fluctuating between the time the price is fixed with a customer or supplier and the time the transaction is settled. The Group's policy is to hedge the transactional risk to the maximum extent possible, primarily through forward contracts.

3.1.3 TRANSLATIONAL RISK

Umicore is an international company and has foreign operations which do not have the Euro as their functional currency. When the results and the balance sheets of these operations are consolidated into Umicore's Group accounts the translated amount is exposed to variations in the value of such local currencies against the Euro, predominantly the US dollar, the BRL, the KRW, the CNY and the ZAR. While Umicore does not systematically hedge its translational currency exposures, it may enter into ad hoc translational hedges.

3.2 METAL PRICE RISK

Umicore's metal price risk can be split into three distinct categories: structural, transactional and inventory risks.

3.2.1 STRUCTURAL RISK

Umicore is exposed to structural metal related price risks. Those risks relate mainly to the impact that metal prices have on surplus metals recovered from materials supplied for treatment or any other revenues component that fluctuates with the metal price. Umicore's policy allows to hedge such metal price exposure, typically if forward metal prices expressed in the functional currency of the concerned businesses are above their historical average and at a level where attractive margins can be secured. The extent to which metal price risk can be hedged depends on the availability of hedging instruments and sufficient associated market liquidity.

The Recycling segment recycles platinum, palladium, rhodium, gold and silver and a wide range of other base and specialty metals. In this segment the short-term sensitivity of revenues and operating profits to metals prices is material. However, given the variability of the raw-material feed over time and the variable duration of the supply contracts negotiated, it is not suitable to provide a fixed sensitivity to any particular metal. In general terms, higher metals prices tend to be earnings enhancing for the Recycling business. Umicore also has a metal price sensitivity in its other business segments (Catalysis, Energy & Surface Technologies) linked primarily to the revenues components that are metal price related and depending the metals used in these segments. Also in these cases a higher metal price tends to carry short-term benefits for the profitability of each business. However, other commercial conditions which are largely independent of the metals price, such as product premiums, are also significant and independent drivers of revenues and profitability.

Structural metal price hedging

For some metals quoted on futures markets Umicore hedges part of its forward metal exposure. This hedging is based on documentation demonstrating a high probability of future metal price based cash flows originating from commercial contracts. Umicore hedged part of its forward metal exposure. At the end of 2017, the outstanding hedge contracts relate to some precious metals (i.e. gold, silver and palladium) and some base metals (i.e. nickel, copper and lead).

3.2.2 TRANSACTIONAL RISK

The Group faces transactional price risks on metals. The majority of its metal-based transactions use global metal market references, like the London Metal Exchange. If the underlying metal price were to be constant, the price Umicore pays for the metal contained in the raw materials purchased would be passed through to the customer as part of the price charged for the product. However, because of the lapse of time between the conversion of purchased raw materials into products and the sale of products, the volatility in the reference metal price creates differences between the price paid for the contained metal and the price received. Accordingly, there is a transactional exposure to any fluctuations in price between the moment raw materials are purchased (i.e., when the metal is "priced in") and the moment the products are sold (i.e. when the metal is "priced out").

The Group's policy is to hedge the transactional risk to the maximum extent possible, primarily through forward contracts.

3.2.3 METAL INVENTORY RISK

The group faces metal price risks on its permanently tied up metal inventories. This risk is related to the market metal price moving below the carrying value of these inventories. Umicore tends not to hedge against this risk.

3.3 INTEREST RATE RISK

The Group's exposure to changes in interest rates relates to the Group's financial debt obligations. At the end of December 2017, the Group's gross financial debt stood at € 1,008 million, of which € 710 million at fixed rate. The 5-year interest rate swap entered into in 2013 for an amount of € 150 million will expire in January 2018.

3.4 CREDIT RISK

Credit risk and concentration of credit risk

Credit risk is the risk of non-payment by any counterparty in relation to sales of goods or metal lease operations. In order to manage its credit exposure, Umicore has determined a credit policy with credit limit requests, approval procedures, continuous monitoring of the credit exposure and dunning procedure in case of delays.

The credit risk resulting from sales is, to a certain extent, covered by credit insurance, letters of credit or similar secure payment means. Umicore entered into two credit insurance agreements with different insurers. One global credit insurance contract has been put in place on a world-wide basis. This contract protects the insured activities against insolvency, political and commercial risks with an individual deductible per invoice of 5% and foresees in a indemnification cap set at regional or country levels. A second policy covers a more selective group of trade receivables and foresees in an annual deductible of € 5 million and a maximum indemnity of € 70 million per annum.

Umicore has determined that in a certain number of cases where the cost of credit insurance is disproportionate in relation to the risk to be insured, no such global credit insurance coverage will be sought. For those businesses, characterised by a significant level of customer concentration or by a specific and close relationship with the customers, specific insurance contracts may be set up for a certain period.

It should be noted that some sizeable transactions, such as the sales of precious metals by Recycling, have a limited credit risk as payment before delivery is a widely accepted practice.

Regarding its risk exposure to financial institutions like banks and brokers, Umicore is also establishing internal credit lines. Specific limits are set, per financial instrument, covering the various risks to which it is exposed when transacting with such counterparties.

3.5 LIQUIDITY RISK

Liquidity risk is addressed by maintaining a sufficient degree of diversification of funding sources. These include committed and uncommitted short-term bilateral bank facilities, two medium-term syndicated bank facilities, two long-term private placements and a commercial paper programme (the latter with a maximum amount of € 600 million).

3.6 TAX RISK

The tax charge included in the financial statements is the Group's best estimate of its tax liability but, until such time as audits by tax authorities are concluded, there is a degree of uncertainty regarding the final tax liability for the period. The Group's policy is to submit tax returns within the statutory time limits and engage tax authorities to ensure that the Group's tax affairs are as current as possible and that any differences in the interpretation of tax legislation and regulation are resolved as quickly as possible. Given the scale and the international nature of the Group's business, VAT, sales tax and intra-Group transfer pricing are an inherent tax risk as it is for other international businesses. Changes in tax laws or in their application with respect to matters such as transfer pricing, VAT, foreign dividends, R&D tax credits and tax deductions, could increase the Group's effective tax rate and adversely affect its net results. Based on these tax risks described, management performed a detailed assessment for uncertain tax positions which resulted in provisions recorded for these uncertainties.

3.7 CAPITAL RISK MANAGEMENT

The Group's objectives when managing capital are to safeguard its ability to continue as a going concern, to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may for example adjust the amount of dividends paid to shareholders, return capital to shareholders, buy back its own shares or issue new shares.

The group monitors its capital structure primarily on the basis of the gearing ratio and the net financial debt over recurring EBITDA ratio. The gearing ratio is calculated as net financial debt divided by the sum of net financial debt and total Group equity. Net financial debt is calculated as non-current financial debt plus current financial debt less cash and cash equivalents. The figures for the presented periods are detailed under the note F24 on Financial Debt.

In an ordinary course of business operating environment, the group aims for a capital structure equivalent to investment-grade credit rating status. The group could consider to temporarily exceed the equivalent level of indebtedness in the case of an extraordinary event, such as for example a major acquisition.

3.8 STRATEGIC AND OPERATIONAL RISKS

Umicore faces certain strategic and operational risks that are not necessarily financial in nature but which have the potential to impact the financial performance of the Group. These include technology risk, supply risk and the risk of product substitution by customers. Please refer to the Risk Management pages (36-43) for a description of these risks and an outline of Umicore's general approach to risk management.

Umicore does not expect a material direct financial impact from the Brexit.

F4 CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments used in developing and applying the consolidated entity's financial statements are continually evaluated and are based on historical experience and other factors, including the expectations of future events that may have a financial impact on the entity and that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results.

Assumptions and estimates are applied when:

- Assessing the need for and measurement of impairment losses,
- Accounting for pension obligations,
- Recognising and measuring provisions for tax, environmental, warranty and litigation risks, product returns, and restructuring,
- Determining inventory write-downs,
- Assessing the extent to which deferred tax assets will be realised,
- Useful lives of Property, Plant and Equipment and Intangible assets excluding goodwill.

The critical estimates and judgments that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are listed below.

4.1 IMPAIRMENT OF GOODWILL

The recoverable amount of each cash-generating unit is determined as the higher of the asset's fair value less costs to sell and its value in use in accordance with the accounting policy. These calculations, impairment testing, require the use of estimates and assumptions such as discount rates, exchange rates, commodity prices, future capital requirements and future operating performance. Internal estimates of future business performance are based on an analysis of a combination of factors including: market growth projections, market share estimates, competitive landscape, pricing and cost evolution. Such analysis combines both internally-generated estimates and data from external sources. As at 31 December 2017, the carrying amount of the goodwill for the consolidated entity was € 142.7 million (€ 132.6 million in 2016).

4.2 REHABILITATION OBLIGATIONS

Provision is made for the anticipated costs of future rehabilitation of industrial sites and surrounding areas to the extent that a legal or constructive obligation exists in accordance with accounting policy 2.15. These provisions include future cost estimates associated with reclamation, plant closures, waste site closures, monitoring, demolition, decontamination, water purification and permanent storage of historical residues. These future cost estimates are discounted to their present value. The calculation of these provision estimates requires assumptions such as application of environmental legislation, plant closure dates, available technologies and engineering cost estimates. A change in any of the assumptions used may have a material impact on the carrying value of rehabilitation provisions. As at 31 December 2017, the carrying amount of rehabilitation provisions was € 66.1 million (€ 58.9 million in 2016).

4.3 DEFINED BENEFIT OBLIGATIONS

An asset or liability in respect of defined benefit plan is recognised on the balance sheet in accordance with accounting policy 2.16. The present value of a defined benefit obligation is dependent upon a number of factors that are determined on an actuarial basis. The consolidated entity determines the appropriate discount rate to be used at the end of each year. The consolidated entity's employee benefit obligations are discussed in more detail in Note F27. At 31 December 2017, a liability with respect to employee benefit obligations of € 342.8 million was recognised (€ 337.9 million in 2016).

4.4 RECOVERY OF DEFERRED TAX ASSETS

Deferred tax assets are recognised for deductible temporary differences, unused tax losses and fair value reserves entries only if it is probable that future taxable profits (based on Group operational plans) are available to use those temporary differences and losses. The actual tax results in future periods may differ from the estimate made at the time the deferred taxes are recognised.

Other assumptions and estimates are disclosed in the respective notes relevant to the item where the assumptions or estimates were used for measurement.

F5 GROUP COMPANIES

Below is a list of the main operating companies included in the consolidated financial statements.

		% INTEREST IN 2016	% INTEREST IN 2017
For continuing operations			
Argentina	Umicore Argentina S.A.	100.00	100.00
Australia	Umicore Marketing Services Australia Pty Ltd.	100.00	100.00
	Umicore Australia Ltd.	100.00	100.00
Austria	Oegussa GmbH	91.29	91.29
Belgium	Todini (BE 0834.075.185)	100.00	100.00
	Umicore Financial Services (BE 0428.179.081)	100.00	100.00
	Umicore Marketing Services Belgium (BE 0402.964.625)	100.00	100.00
	Umicore Specialty Materials Brugge (BE 0405.150.984)	100.00	100.00
	Umicore Long Term Finance (BE 0404.867.211)	100.00	100.00
Brazil	Coimpa Industrial Ltda	100.00	100.00
	Umicore Brasil Ltda	100.00	100.00
	Clarex	100.00	100.00
	Umicore Shokubai Brasil Industrial Ltda	60.00	60.00
Canada	Umicore Canada Inc.	100.00	100.00
	Umicore Autocat Canada Corp.	100.00	100.00
	Umicore Precious Metals Canada Inc.	100.00	100.00
China	Umicore Marketing Services (Shanghai) Co., Ltd.	100.00	100.00
	Umicore Marketing Services (Hong Kong) Ltd.	100.00	100.00
	Umicore Autocat (China) Co. Ltd.	100.00	100.00
	Umicore Technical Materials (Suzhou) Co., Ltd.	100.00	100.00
	Jiangmen Umicore Changxin New Materials Co., Ltd.	70.00	70.00
	Umicore Jubo Thin Film Products (Beijing) Co., Ltd.	100.00	100.00
	Umicore Shokubai (China) Co Ltd	60.00	60.00
France	Umicore France S.A.S.	100.00	100.00
	Umicore IR Glass S.A.S.	100.00	100.00
	Umicore Autocat France S.A.S.	100.00	100.00
	Umicore Specialty Powders France	0.00	100.00
Germany	Umicore AG & Co. KG (*)	100.00	100.00
	Umicore Metalle & Oberflächen GmbH	100.00	100.00
	Allgemeine Gold- und Silberscheideanstalt AG	91.21	91.21
	Umicore Galvanotechnik GmbH	91.21	91.21
	Umicore Technical Materials AG & Co. KG (*)	0.00	100.00
	Todini GmbH	100.00	100.00
	Umicore Shokubai Germany GmbH	60.00	60.00
Italy	Italbras S.p.A.	100.00	100.00
	Todini and Co. S.P.A.	100.00	100.00
India	Umicore Autocat India Pvt LTD	100.00	100.00
	Umicore India Private Limited	100.00	100.00
Japan	Umicore Japan KK	100.00	100.00
	Umicore Shokubai Japan Co Ltd	60.00	60.00

		% INTEREST IN 2016	% INTEREST IN 2017
Korea	Umicore Korea Ltd.	100.00	100.00
	Umicore Marketing Services Korea Co., Ltd.	100.00	100.00
	Umicore Materials Korea Ltd	100.00	100.00
	Ordeg Co.,Ltd.	50.00	100.00
Liechtenstein	Umicore Thin Film Products AG	100.00	100.00
Luxembourg	Umicore International	100.00	100.00
	Umicore Autocat Luxembourg	100.00	100.00
Netherlands	Schöne Edelmetaal BV	91.21	91.21
Philippines	Umicore Specialty Chemicals Subic Inc.	78.20	78.20
Portugal	Umicore Marketing Services Lusitana Metais Lda	100.00	100.00
South Africa	Umicore Marketing Services Africa (Pty) Ltd.	100.00	100.00
	Umicore Catalyst South Africa (Pty) Ltd.	65.00	65.00
Spain	Todini Quimica Ibérica, S.L.	100.00	100.00
Sweden	Umicore Autocat Sweden AB	100.00	100.00
Switzerland	Allgemeine Suisse SA	91.21	91.21
Taiwan	Umicore Thin Fim Products Taiwan Co Ltd	100.00	100.00
Thailand	Umicore Precious Metals Thailand Ltd.	91.21	91.21
	Umicore Autocat (Thailand) Co., Ltd.	100.00	100.00
United Kingdom	Umicore Coating Services Ltd.	100.00	100.00
	Umicore Marketing Services UK Ltd	100.00	100.00
USA	Umicore USA Inc.	100.00	100.00
	Umicore Autocat USA Inc.	100.00	100.00
	Umicore Precious Metals NJ LLC	100.00	100.00
	Umicore Precious Metal Chemistry USA LLC	100.00	100.00
	Umicore Precious Metals USA Inc.	100.00	100.00
	Umicore Optical Materials USA Inc.	100.00	100.00
	Umicore Shokubai USA Inc	60.00	60.00
	Palm Commodities International	100.00	100.00
	Umicore Technical Materials North America Inc.	100.00	100.00
	Umicore Thin Film Products USA Inc.	100.00	100.00
	Umicore Specialty Materials Recycling, LLC.	100.00	100.00

(*) As a result of the integration of Umicore AG & Co. KG and Umicore Technical Materials AG & Co KG into the consolidated accounts of Umicore and the disclosure of the annual accounts according to § 325 HGB (German Commercial Code), Umicore AG & Co. KG and Umicore Technical Materials AG & Co KG are exempted from setting up, auditing and disclosing consolidated financial statements and financial management reports according to Article 264 b of the HGB (German Commercial Code).

F6 FOREIGN CURRENCY MEASUREMENT

For the main currencies applicable within the Group's consolidated entities and investments, the prevailing rates used for translation into the Group's presentation currency (Euro), are as set out below. All subsidiaries, associates and joint-ventures have as functional currency the currency of the country in which they operate, except for Element Six Abrasives (Ireland) where the functional currency is the US dollar.

		CLOSING RATES		AVERAGE RATES	
		2016	2017	2016	2017
US dollar	USD	1.054	1.199	1.107	1.130
British pound	GBP	0.856	0.887	0.819	0.877
Canadian dollar	CAD	1.419	1.504	1.466	1.465
Swiss franc	CHF	1.074	1.170	1.090	1.112
Japanese yen	JPY	123.400	135.010	120.197	126.711
Brazilian real	BRL	3.435	3.967	3.863	3.606
South African rand	ZAR	14.457	14.805	16.264	15.049
Chinese yuan	CNY	7.320	7.804	7.352	7.629
Thai baht	THB	37.726	39.121	39.043	38.296
Korean won (100)	KRW	12.694	12.796	12.842	12.767

F7 SEGMENT INFORMATION

BUSINESS GROUP INFORMATION 2016

Thousands of Euros	NOTE	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE & UNALLOCATED	ELIMINATIONS	TOTAL CONTINUED	DISCONTINUED OPERATIONS	TOTAL
Total segment turnover		**2,779,124**	**1,468,979**	**6,886,386**	**31,750**	**(722,698)**	**10,443,541**	**652,638**	**11,096,179**
External turnover		2,770,120	1,414,685	6,226,986	31,750	–	10,443,541	652,638	**11,096,179**
Inter-segment turnover		9,004	54,294	659,400	–	(722,698)	–	–	**–**
Total segment revenues (excluding metals)		**1,163,395**	**610,193**	**641,230**	**–**	**(5,450)**	**2,409,368**	**258,133**	**2,667,501**
External revenues		1,162,284	609,912	637,172	–	–	2,409,368	258,133	**2,667,501**
Inter-segment revenues		1,111	281	4,058	–	(5,450)	–	–	**–**
Operating result	**F9**	**116,453**	**73,238**	**115,482**	**(56,208)**	**–**	**248,965**	**(35,448)**	**213,517**
Recurring operating result		143,321	80,692	124,888	(46,145)	–	302,757	29,675	**332,432**
Non-recurring operating result		(26,665)	(914)	(10,458)	(9,989)	–	(48,025)	(61,400)	**(109,425)**
IAS 39 effect		(204)	(6,540)	1,051	(75)	–	(5,766)	(3,723)	**(9,490)**
Equity method companies	**F9**	**9,098**	**1,003**	**–**	**6,685**	**–**	**16,786**	**1,254**	**18,040**
Recurring		9,153	1,003	–	7,230	–	17,386	929	**18,315**
Non-recurring		664	–	–	(1,781)	–	(1,117)	325	**(792)**
IAS 39 effect		(718)	–	–	1,235	–	517	–	**517**
EBIT	**F9**	125,551	74,241	115,482	(49,523)	–	265,751	(34,194)	**231,557**
Recurring EBIT		152,474	81,695	124,888	(38,914)	–	320,143	30,604	**350,747**
Non-recurring EBIT		(26,001)	(914)	(10,458)	(11,769)	–	(49,142)	(61,075)	**(110,217)**
IAS 39 effect on EBIT		(922)	(6,540)	1,051	1,161	–	(5,249)	(3,723)	**(8,973)**
Depreciation and amortisation	**F9**	**50,953**	**49,937**	**62,358**	**12,693**	**–**	**175,942**	**82**	**176,024**
Recurring		50,953	49,937	62,358	12,693	–	175,942	82	**176,024**
EBITDA	**F9**	**176,504**	**124,178**	**177,840**	**(36,829)**	**–**	**441,693**	**(34,112)**	**407,581**
Recurring EBITDA		203,427	131,632	187,246	(26,221)	–	496,084	30,687	**526,771**
Consolidated total assets		**1,479,625**	**1,359,785**	**1,084,014**	**536,482**	**(567,640)**	**3,892,267**	**253,484**	**4,145,751**
Segment assets		1,405,138	1,332,872	1,084,014	443,365	(567,640)	3,697,749	237,503	**3,935,252**
Investments in associates		74,487	26,913	–	93,117	–	194,518	15,981	**210,499**
Consolidated total liabilities		**568,805**	**579,162**	**592,253**	**980,225**	**(567,640)**	**2,152,805**	**144,908**	**2,297,711**
Capital Employed at 31/12 of previous year	F31	968,200	633,382	465,879	147,715	–	2,215,176	199,325	**2,414,501**
Capital Employed at 30/06	F31	895,612	697,913	466,916	173,899	–	2,234,340	157,023	**2,391,362**
Capital Employed at 31/12	F31	911,191	752,037	498,139	136,968	–	2,298,336	99,074	**2,397,409**
Average Capital Employed in first half year	F31	931,906	665,648	466,398	160,807	–	2,224,758	178,174	**2,402,931**
Average Capital Employed in second half year	F31	903,401	724,975	482,527	155,434	–	2,266,338	128,048	**2,394,386**
Average Capital Employed in the year	**F31**	**917,653**	**695,311**	**474,463**	**158,120**	**–**	**2,245,548**	**153,111**	**2,398,659**
ROCE	F31	16.62%	11.75%	26.32%	(24.61%)	0.00%	14.26%	19.99%	**14.62%**
Capital expenditure	**F34**	**46,528**	**144,319**	**72,271**	**9,714**	**–**	**272,833**	**14,505**	**287,338**
Total R&D expenditure	**F9**	**101,958**	**20,183**	**23,023**	**7,626**	**–**	**152,790**	**3,070**	**155,859**
R&D recognised in operating expenses	F9	88,584	18,329	23,023	7,626	–	137,561	3,070	**140,631**
R&D capitalised as intangible assets	F34	13,374	1,854	–	–	–	15,228	–	**15,228**

BUSINESS GROUP INFORMATION 2017

Thousands of Euros	NOTE	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE & UNALLOCATED	ELIMINATIONS	TOTAL CONTINUED	DISCONTINUED OPERATIONS	TOTAL
Total segment turnover		**3,090,560**	**2,392,360**	**7,326,724**	**43,910**	**(906,290)**	**11,947,264**	**330,356**	**12,277,620**
External turnover		3,068,320	2,333,680	6,501,354	43,910	–	11,947,264	330,356	**12,277,620**
Inter-segment turnover		22,240	58,680	825,370	–	(906,290)	–	–	**–**
Total segment revenues (excluding metals)		**1,253,100**	**893,603**	**650,300**	**–**	**(6,420)**	**2,790,583**	**125,100**	**2,915,683**
External revenues		1,251,820	893,250	645,510	–	–	2,790,580	125,100	**2,915,680**
Inter-segment revenues		1,280	350	4,790	–	(6,420)	–	–	**–**
Operating result	**F9**	**160,346**	**99,231**	**121,298**	**(68,784)**	**–**	**312,091**	**783**	**312,874**
Recurring operating result		165,132	130,217	127,899	(54,151)	–	369,098	11,537	**380,634**
Non-recurring operating result		10	(14,804)	(2,718)	(14,927)	–	(32,440)	(13,042)	**(45,482)**
IAS 39 effect		(4,796)	(16,182)	(3,883)	294	–	(24,567)	2,289	**(22,278)**
Equity method companies	**F9**	**893**	**10,481**	**–**	**18,181**	**–**	**29,555**	**859**	**30,413**
Recurring		383	10,481	–	17,896	–	28,761	859	**29,619**
Non-recurring		(376)	–	–	(392)	–	(768)	–	**(768)**
IAS 39 effect		885	–	–	676	–	1,562	–	**1,562**
EBIT	**F9**	**161,239**	**109,713**	**121,298**	**(50,604)**	**–**	**341,646**	**1,642**	**343,287**
Recurring EBIT		165,515	140,699	127,899	(36,255)	–	397,858	12,395	**410,254**
Non-recurring EBIT		(366)	(14,804)	(2,718)	(15,319)	–	(33,208)	(13,042)	**(46,250)**
IAS 39 effect on EBIT		(3,911)	(16,182)	(3,883)	970	–	(23,005)	2,289	**(20,717)**
Depreciation and amortisation	**F9**	**58,884**	**57,617**	**61,835**	**12,157**	**–**	**190,494**	**31**	**190,524**
Recurring		58,884	57,042	60,955	12,157	–	189,038	31	**189,069**
EBITDA	**F9**	**220,122**	**167,330**	**183,134**	**(38,447)**	**–**	**532,139**	**1,672**	**533,811**
Recurring EBITDA		224,399	197,741	188,855	(24,098)	–	586,897	12,426	**599,323**
Consolidated total assets		**1,878,919**	**2,661,962**	**1,074,621**	**603,519**	**(1,103,360)**	**5,115,661**	**–**	**5,115,661**
Segment assets		1,878,919	2,626,474	1,074,621	485,999	(1,103,360)	4,962,653	–	**4,962,653**
Investments in associates		0	35,488	–	117,520	–	153,008	–	**153,008**
Consolidated total liabilities		**772,775**	**1,442,307**	**618,204**	**1,523,095**	**(1,103,360)**	**3,253,021**	**–**	**3,253,021**
Capital Employed at 31/12 of previous year	F31	911,191	752,037	498,139	136,968	–	2,298,336	99,074	**2,397,409**
Capital Employed at 30/06	F31	998,299	976,951	503,565	148,061	–	2,626,877	92,497	**2,719,374**
Capital Employed at 31/12	F31	1,149,585	1,205,844	474,522	173,593	–	3,003,545	–	**3,003,545**
Average Capital Employed in first half year	F31	954,745	864,494	500,852	142,515	–	2,462,606	95,786	**2,558,392**
Average Capital Employed in second half year	F31	1,073,942	1,091,397	489,044	160,827	–	2,815,211	46,249	**2,861,459**
Average Capital Employed in the year	**F31**	**1,014,344**	**977,946**	**494,948**	**151,671**	**–**	**2,638,908**	**71,017**	**2,709,926**
ROCE	F31	16.32%	14.39%	25.84%	(23.90%)	0.00%	15.08%	17.45%	**15.14%**
Capital expenditure	**F34**	**45,038**	**225,529**	**79,526**	**11,852**	**–**	**361,944**	**3,305**	**365,250**
Total R&D expenditure	**F9**	**119,824**	**30,351**	**18,618**	**4,766**	**–**	**173,558**	**1,599**	**175,157**
R&D recognised in operating expenses	F9	107,764	27,485	18,618	4,766	–	158,632	1,599	**160,232**
R&D capitalised as intangible assets	F34	12,060	2,865	–	–	–	14,926	–	**14,926**

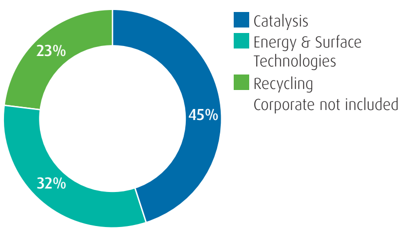
GEOGRAPHICAL INFORMATION 2016

Thousands of Euros	NOTE	EUROPE	OF WHICH BELGIUM	ASIA-PACIFIC	NORTH AMERICA	SOUTH AMERICA	AFRICA	TOTAL
Total segment turnover		6,758,722	121,963	1,898,223	1,326,192	289,144	171,259	**10,443,541**
Total non-current assets		924,063	473,540	439,236	152,323	41,361	8,801	**1,581,765**
Capital expenditure	F34	179,497	146,974	65,081	18,448	7,467	2,340	**272,834**

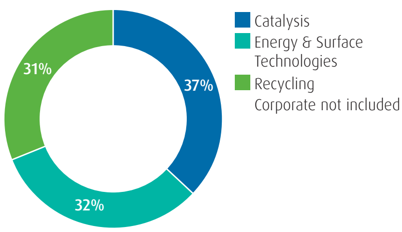
GEOGRAPHICAL INFORMATION 2017

Thousands of Euros	NOTE	EUROPE	OF WHICH BELGIUM	ASIA-PACIFIC	NORTH AMERICA	SOUTH AMERICA	AFRICA	TOTAL
Total segment turnover		6,926,079	130,937	3,093,227	1,437,303	346,073	144,581	**11,947,264**
Total non-current assets		1,014,335	499,561	591,072	133,497	49,114	8,325	**1,796,344**
Capital expenditure	F34	142,691	111,839	198,951	13,673	4,597	2,032	**361,944**

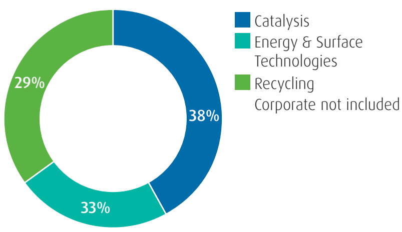
REVENUES (EXCLUDING METAL) PER BUSINESS GROUP



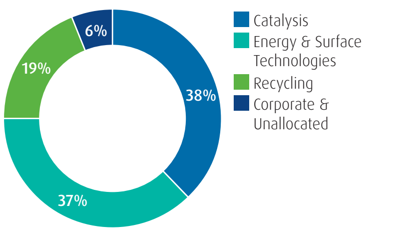
RECURRING EBITDA PER BUSINESS GROUP



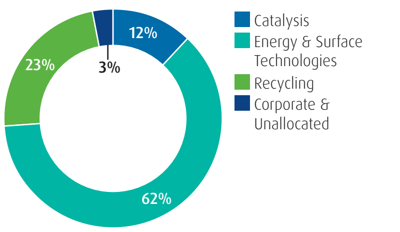
RECURRING EBIT PER BUSINESS GROUP



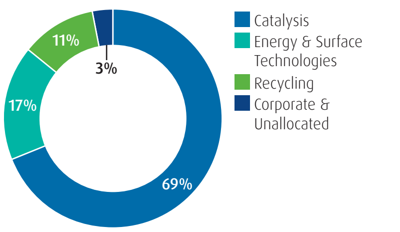
CAPITAL EMPLOYED, AVERAGE PER BUSINESS GROUP



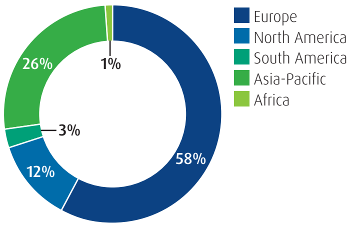
CAPITAL EXPENDITURE PER BUSINESS GROUP



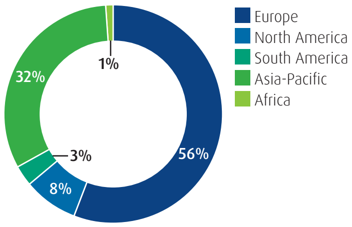
R&D EXPENDITURE PER BUSINESS GROUP



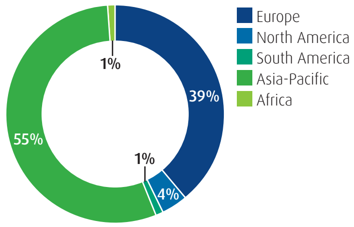
TURNOVER BY REGION



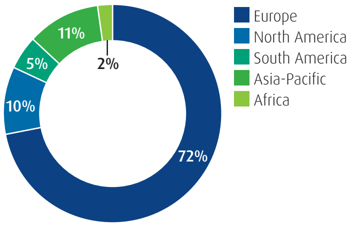
NON-CURRENT ASSETS BY REGION



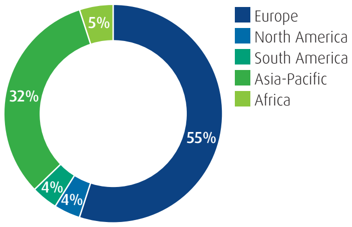
CAPITAL EXPENDITURE BY REGION



EMPLOYEE COMPENSATION & BENEFITS BY REGION



INCOME TAXES BY REGION



Segment information is presented in respect of the Group's business segments as defined below.

The segment results, assets and liabilities include items directly attributable to the segment as well as those elements that can reasonably be allocated to a segment.

The pricing of inter-segment sales is based on an arm's length transfer pricing system. In the absence of relevant market price references, "cost plus" mechanisms are used. Segment turnover and revenue is taking into account intragroup operations. Those are mainly related to recycling services and sales of refined metal from the recycling segment to the other group segments and are important to assess the performance of the segments concerned.

Since these transactions cannot be considered as external operations, they are eliminated at the group level, to present a net view.

The Group's business segments have no single external customer that amounts to 10% or more of the Group's revenue.

BUSINESS GROUPS

The Group is organised into the following reporting segments:

CATALYSIS

The segment comprises the Automotive Catalysts and Precious Metals Chemistry business units. Catalysis provides automotive catalysts for gasoline and diesel light and heavy duty diesel applications, including on-road and non-on-road vehicles. The business group also offers stationary catalysis for industrial emissions control and produces precious metals-based compounds and catalysts for use in the pharmaceutical and fine chemicals industries.

ENERGY & SURFACE TECHNOLOGIES

The segment comprises the Cobalt & Specialty Materials, Electro-Optic Materials, Electroplating, Rechargeable Battery Materials and Thin Film Products business units. Energy & Surface Technologies' products are found in applications used in the production and storage of clean energy and in a range of applications for surface technologies that bring specific properties and functionalities to end products. All the activities offer a closed loop service for the customers. This segment includes the associates Ganzhou Yi Hao Umicore Industries and Jiangmen Chancsun Umicore Industry.

RECYCLING

The segment consists of the business units Precious Metals Refining, Jewellery & Industrial Metals, Precious Metals Management, Technical Materials and Platinum Engineered Materials. Recycling treats complex waste streams containing precious and other specialty metals. The recycling operations can recover 20 of these metals from a wide range of input materials ranging from industrial residues to end-of-life materials. Other activities include production of precious metals-based materials that are essential for applications as diverse as high-tech glass production, electrics and electronics.

CORPORATE

Corporate covers corporate activities, shared operational functions and the Group's Research, Development & Innovation unit. Umicore's share in Element Six Abrasives is also included in Corporate. Umicore's share in Ieqsa which was until June 2017 presented under discontinued operations has been transferred to Corporate as from 1 July.

The Building Products and Zinc Chemicals business units are reported as discontinued until their effective divestment. Zinc Chemicals has been effectively sold at the end of October 2016 and Building Products at the end of September 2017. Hence, the discontinued operations for 2016 still include 10 months of contribution from Zinc Chemicals as well as the capital gain realised on the sale and for 2017, the discontinued operations still include nine months of contribution from Building Products as well as the capital loss realised on the sale.

In the geographical segment information, the figures presented as non-current assets exclude the amounts for long-term investments, non-current loans granted, non-current receivables, deferred tax assets and assets for employee benefits as required by IFRS 8.
Performance of the segments is reviewed by the chief operating decision maker based on the recurring EBIT/operating result.
As illustrated in the table above, the difference between the recurring operating result and the operating result as presented in the Income Statement consists of the non-recurring operating result and the IAS 39 effect for which definitions are given in the glossary.

Associate companies are allocated to the business group with the closest fit from a market segment perspective.

F8 BUSINESS COMBINATIONS AND ACQUISITIONS OF ASSOCIATES AND JOINT VENTURES

Thousands of Euros	NOTE	FAIR VALUE 2017
Intangible assets		35,907
Property, plant & equipment		89,196
Other non-current assets		11,736
Non-current assets		**136,839**
Inventories		130,586
Accounts receivables		114,292
Income tax receivables		1,437
Cash and cash equivalent		8,594
Current assets		**254,909**
Translation differences		**(9,022)**
Provisions for employee benefits		2,460
Non-current trade & other payables		1,341
Deferred tax liabilities		(852)
Environmental provisions		2,471
Provisions for other liabilities and charges		13,468
Non-current liabilities		**18,891**
Current financial debt		43,172
Income tax payables		1,367
Trade and other payables		54,589
Current environmental provisions		392
Current liabilities		**99,519**
Net assets acquired		**282,360**
Goodwill	F15	14,535
Badwill		(10,900)
Loss on equity investment		1,132
Book value of equity investment		(67,023)
Group share purchase price in cash		**(220,103)**
Net cash & cash equivalent acquired		**8,594**
Net cash out for acquistion of subsidiaries		**(211,509)**

In March 2017, Umicore announced and completed the acquisition of the combined 50% shareholdings of Samkwang Glass Ind. Co., Ltd. and OCI Company Ltd. in the Korean automotive catalyst joint venture, Ordeg Co. Ltd. Umicore – which previously held 50% of the equity – now has full ownership of Ordeg which enables the company to better address the global needs of its automotive catalyst customers. Ordeg is fully consolidated as from 1 April 2017 and is part of the segment Catalysis. The net asset value of Ordeg in the opening balance sheet was € 137.6 million, the purchase price for the additional 50% was € 82.4 million and the fair value loss on the existing 50% shares amounts to € 1.1 million after consideration of a control premium. Taking those elements into consideration, a goodwill of € 10.7 million has been recognised. The aggregated total result of the period of the new acquisition since its 100% inclusion in the consolidated financial statements of the group corresponds to a gain of € 5.5 million.

At the end of March 2017, Umicore acquired 100% of Eurotungstene, a company within the Eramet Group specialised in developing, manufacturing and marketing metal powders used in diamond tools and hard metal applications. The acquisition of Eurotungstene, which is integrated into the Cobalt & Specialty Materials business unit will allow Umicore to broaden its product portfolio to better serve the needs of its customers. Eurotungstene is fully consolidated as from 1 April 2017 and is part of the segment Energy & Surface Technologies. The net asset value of Eurotungstene in the opening balance sheet was € 15.6 million and the purchase price was € 4.7 million. Taking those elements into consideration, a badwill of € 10.9 million has been recognised in other operating income. The aggregated total result of the period of Eurotungstene since its inclusion in the consolidated financial statement of the group corresponds to a gain of € 10.7 million, including the badwill.

In June 2017, Umicore announced that it had reached an agreement to acquire the heavy duty diesel and stationary catalyst businesses of Haldor Topsoe. Haldor Topsoe is a leading producer of high performance catalysts for a wide range of industries. Its automotive catalysts are used in emission systems for on-road and non-road heavy duty diesel applications and ensure compliance with the most stringent emission norms, including Euro VI. Its stationary business offers catalytic solutions to treat NOx emissions from industrial sources such as gasfired power plants as well as marine applications. The businesses employ some 280 people, serving customers from production plants in Frederikssund (Denmark), Houston (Texas), Tianjin (China) and Joinville (Brazil) and from R&D facilities in Lyngby (Denmark). The closing of the transaction was completed at the end of November 2017 and a preliminary opening balance sheet has been prepared as of 1 December but may still be subject to adjustments on a number of restatements over the coming 11 months. Haldor Topsoe entities are part of the segment Catalysis and are now fully consolidated as from 1 December. The total purchase price was € 133.0 million and the net assets acquired € 129.2 million resulting in a goodwill of € 3.8 million. No result has been considered for the December closing, taking into account the materiality as the closing was made at year end.

F9 RESULT FROM OPERATING ACTIVITIES

Thousands of Euros	**2016**	**2017**
Sales	10,340,446	11,822,362
Services	103,095	124,902
Turnover (1)	**10,443,541**	**11,947,264**
Other operating income (2)	**59,813**	**71,965**
OPERATING INCOME OF CONTINUING OPERATIONS	**10,503,354**	**12,019,229**
Raw materials and consumables used (3)	**(9,040,437)**	**(10,324,429)**
Payroll and related benefits	**(636,071)**	**(700,706)**
Depreciation of fixed assets	(175,944)	(190,494)
Impairment loss on fixed assets	(21,111)	(3,417)
Inventory and bad debt provisions	4,777	(9,792)
Depreciation and impairment results (4)	**(192,278)**	**(203,703)**
Services and outsourced refining and production costs	(343,433)	(404,818)
Royalties, licence fees, consulting and commissions	(28,321)	(36,330)
Other operating expenses	2,421	(3,354)
Increase and decrease in provisions	(38,914)	(41,544)
Use of provisions	29,311	19,992
Capital losses on disposal of assets	(728)	(3,961)
Other operating expenses (5)	**(379,664)**	**(470,015)**
OPERATING EXPENSES OF CONTINUING OPERATIONS	**(10,248,450)**	**(11,698,854)**
Operating income of discontinued operations	661,311	334,291
Operating expenses of discontinued operations	(697,994)	(319,358)

1) Services mainly include the revenues from tolling contracts.
2) Other operating income for continuing operations mainly include re-invoicing of costs to third parties (€ 27.7 million), badwill recognised on new business combination (€ 10.9 million), operating grants (€ 8.5 million), royalties and licence fees (€ 9.7 million), income linked to emission rights (€ 2.1 million), insurance recovery (€ 1.6 million).
3) Raw materials and consumables used include water, gas and electricity for € 83.3 million in 2017 (€ 84.3 million in 2016) for continuing operations.
4) Impairments of fixed assets have been taken and transferred in non-recurring result. Those are mainly related to adjustments to the production configuration in a number of units.
5) Taxes other than income taxes included in other operating expenses amount to € 19.7 million (€ 9.9 million in 2016) for continuing operations.

R&D EXPENDITURE

Thousands of Euros	NOTE	2016	2017
R&D recognised in Other operating expenses		137,561	158,632
R&D capitalised as intangible assets	F14	15,228	14,926
Total R&D expenditure for continuing operations		**152,790**	**173,558**
Total R&D expenditure for discontinued operations		3,070	1,599

Total R&D expenditure for continuing operations was € 173.6 million in the fully consolidated companies (€ 175.2 million including the discontinued operations). The part of the R&D expenditures that is directly recognised in the other operating expenses amounts to € 158.6 million for the continuing operations (€ 160.2 million including discontinued operations).

NON-RECURRING ELEMENTS AND IAS 39 EFFECTS INCLUDED IN THE RESULT, INCLUDING DISCONTINUED OPERATIONS

		2016				2017			
Thousands of Euros	NOTE	TOTAL	RECURRING	NON-RECURRING	IAS 39 EFFECT	TOTAL	RECURRING	NON-RECURRING	IAS 39 EFFECT
Turnover		**11,096,179**	11,096,179	–	–	**12,277,619**	12,277,312	307	–
Other operating income		**68,485**	67,087	2,522	(1,124)	**75,900**	60,262	16,655	(1,017)
Operating income		**11,164,664**	**11,163,265**	**2,522**	**(1,124)**	**12,353,519**	**12,337,574**	**16,962**	**(1,017)**
Raw materials and consumables used		**(9,492,911)**	(9,475,883)	(108)	(16,920)	**(10,550,782)**	(10,543,983)	(8,735)	1,936
Payroll and related benefits		**(741,105)**	(741,064)	(41)	–	**(754,832)**	(751,169)	(3,663)	–
Depreciation and impairment results		**(183,181)**	(185,105)	(2,836)	4,759	**(203,651)**	(195,624)	(6,294)	(1,733)
of which depreciation and amortisation		**(176,024)**	(176,024)	–	–	**(190,524)**	(189,069)	(1,455)	–
Other operating expenses		**(529,247)**	(428,849)	(104,197)	3,799	**(508,946)**	(467,419)	(20,063)	(21,464)
Operating expenses		**(10,946,445)**	**(10,830,901)**	**(107,182)**	**(8,362)**	**(12,018,211)**	**(11,958,195)**	**(38,755)**	**(21,261)**
Income from other financial investments		**(4,698)**	68	(4,766)	–	**(22,435)**	1,254	(23,689)	–
Result from operating activities		**213,521**	**332,433**	**(109,425)**	**(9,487)**	**312,873**	**380,634**	**(45,482)**	**(22,278)**
Net contribution from equity method companies		**18,040**	18,315	(792)	517	**30,413**	29,619	(768)	1,562
EBIT		**231,557**	**350,747**	**(110,217)**	**(8,973)**	**343,287**	**410,254**	**(46,250)**	**(20,717)**
EBITDA		**407,581**	**526,771**	**(110,217)**	**(8,973)**	**533,811**	**599,323**	**(44,795)**	**(20,717)**
Finance cost	F11	**(20,700)**	(31,868)	–	11,169	**(38,344)**	(41,865)	–	3,519
Income taxes	F13	**(69,501)**	(75,279)	5,654	123	**(78,690)**	(87,185)	4,525	3,971
Net result		**141,360**	**243,601**	**(104,563)**	**2,323**	**226,253**	**281,202**	**(41,725)**	**(13,227)**
of which minority shares		**10,636**	10,746	(155)	46	**14,308**	14,431	119	(243)
of which group shares		**130,724**	232,855	(104,408)	2,277	**211,943**	266,771	(41,844)	(12,984)

Non-recurring items had a negative impact of € 46.3 million on EBIT. Restructuring charges accounted for € 20 million and were primarily related to the sale of Thin Film Products large area coatings activity and the closure of its production site in Providence as well as the discontinuation of production activities at Schöne Edelmetaal in the business unit Jewellery & Industrial Metals. Other items consisted of a € 13 million capital loss on the sale of Building Products (taking into account that no depreciation charges on its assets were recognised as from the second half of 2015 in accordance with IFRS 5), an impairment of Umicore's shareholding in Nyrstar of € 7 million and environmental provision charges of € 7 million. The impact of non-recurring charges on the net result (Group share) amounted to € 41.7 million. IAS 39 accounting rules had a negative effect of € 20.7 million on EBIT and a negative impact of € 13.2 million on net result (Group share). The impact concerns timing differences imposed by IFRS that relate primarily to transactional and structural metal and currency hedges. All IAS 39 impacts are non-cash in nature.

F10 PAYROLL AND RELATED BENEFITS

Thousands of Euros	2016	2017
Wages, salaries and direct social advantages	(476,813)	(515,680)
Other charges for personnel	(25,727)	(30,801)
Temporary staff	(10,059)	(13,132)
Share-based payments	(3,548)	(6,129)
Employee salaries	**(516,147)**	**(565,742)**
Employer's social security	**(95,338)**	**(99,131)**
Defined benefit contributions	(11,204)	(12,042)
Contribution to defined contribution plan	(15,307)	(18,699)
Employer's voluntary contributions (other)	(3,194)	(2,553)
Pensions paid directly to beneficiaries	(3,503)	(4,342)
Provisions for employee benefits (-increase/+ use and reversals)	8,622	1,803
Pensions and other benefits	**(24,586)**	**(35,833)**
PAYROLL AND RELATED BENEFITS OF CONTINUING OPERATIONS	**(636,071)**	**(700,706)**
Payroll and related benefits of discontinued operations	(105,034)	(54,126)

AVERAGE HEADCOUNT IN CONSOLIDATED COMPANIES	2016	2017
Executives and managerial staff	1,899	1,819
Non-managers	8,276	8,026
Total including discontinued operations	**10,175**	**9,845**
of which discontinued operations	901	–
Total for continuing operations	**9,274**	**9,845**

SHARE-BASED PAYMENTS

Thousands of Euros	NOTE	2016	2017
Number of stock options granted	F28	**1,217,750**	**1,170,000**
Valuation model		Present Economic Value	
Assumed volatility (% pa)		25.00	25.00
Risk-free interest rate (% pa)		(0.002)	(0.004)
Dividend increase (% pa)		0.10	0.10
Rate of pre-vesting forfeiture (% pa)		NA	NA
Rate of post-vesting leaving (% pa)		10.00	10.00
Minimum gain threshold (% pa)		30.00	30.00
Proportion who exercise given minimum gain achieved (% pa)		100.00	100.00
Fair value per granted instrument determined at the grant date (€)		2.34	3.87
Total fair value of options granted		**2,843**	**4,529**
47,400 shares granted at 25.50 €		–	1,209
7,400 shares granted at 25.74 €		–	190
10,312 shares granted at 31.27 €		–	322
6,800 shares granted at 24.73 €		–	168
7,400 shares granted at 17.21 €		127	–
59,250 shares granted at 16.63 €		985	–
10,368 shares granted at 22.43 €		233	–
Total fair value of shares granted		**1,345**	**1,890**
Reversal provision previous year		(368)	–
SHARE-BASED PAYMENTS		**3,821**	**6,418**
Share-based payments to discontinued operations		(273)	(289)
Total Share-based payments continuing operations		**3,548**	**6,129**

The Group recognised a share-based payment expense of € 6.1 million during the year for continuing operations.

The part of this expense related to stock options is calculated by an external actuary using the Present Economic Value model which takes into account all features of the stock option plans and the volatility of the underlying stock. This volatility has been determined using the historical volatility of the Group shareholders' return over different averaging periods and different terms. No other market condition has been included on the basis of calculation of fair market value.

The free share part of the expense is valued at the market price of the shares at the grant date. In 2017, shares have been granted to top management resulting in an extra charge of € 1.6 million for continuing operations.

The cash discounts that the authorities give back to Umicore Belgium on the social security contributions, relating to incentives regarding a.o. shift premiums, overtime and R&D are disclosed under the item "Employer's social security".

F11 FINANCE COST – NET

Thousands of Euros	2016	2017
Interest income	3,581	4,057
Interest expenses	(9,937)	(23,540)
Discounting of non-current provisions	(5,964)	(9,585)
Foreign exchange gains and losses	(2,535)	(6,864)
Other financial income	1,248	298
Other financial expenses	(4,062)	(1,687)
Total of continuing operations	**(17,668)**	**(37,323)**
Total of discontinued operations	(3,031)	(1,023)

The net interest charge in 2017 totalled € 19.5 million, in line with the increase of the indebtedness.

The discounting of non-current provisions relates mainly to employee benefits provisions and to provisions for other liabilities and charges. This amount is influenced by the present value of these liabilities, which in turn is influenced by changes in the discount rate, by the cash-out profile and by the recognition of new non-current liabilities. Most of the discounting results in 2017 were booked in Belgium, Germany and Brazil.

Foreign exchange results include realised exchange results and the unrealised translation adjustments on monetary items using the closing rate of the period.

They also include fair value gains and losses on other currency financial instruments (see note F33). Other financial expenses include payment discounts, bank expenses and other financial fees incurred.

F12 INCOME FROM OTHER FINANCIAL INVESTMENTS

Thousands of Euros	2016	2017
Capital gains and losses on disposal of financial investments	(4,204)	(1,301)
Dividend income	45	1,380
Interest income from financial assets	10	(3)
Impairment results on financial investments	(1,788)	(8,361)
Total for continuing operations	**(5,937)**	**(8,286)**
Total for discontinued operations	1,240	(14,149)

The impairment result on financial investments mainly relates to impairments on the Nyrstar shares and on the capital loss realised on the previously 50% held in Ordeg.

The capital losses realised on disposal of financial investments are linked to the sale of Umicore Vital Thin Film Technologies in China.

F13 INCOME TAXES

Thousands of Euros	2016	2017
INCOME TAX EXPENSE		
RECOGNISED IN THE INCOME STATEMENT		
Current income tax	(71,046)	(76,714)
Deferred income tax	14,626	1,535
Total tax expense for continuing operations	**(56,420)**	**(75,178)**
Total tax expense for discontinued operations	**(13,081)**	**(3,512)**
RELATIONSHIP BETWEEN TAX EXPENSE (INCOME) AND ACCOUNTING PROFIT		
Result from operating activities	248,966	312,090
Financial result	(17,668)	(37,323)
Profit (loss) before income tax of consolidated companies for continuing operations	**231,298**	**274,767**
Weighted average theoretical tax rate (%)	(30.38)	(27.47)
Income tax calculated at the weighted average theoretical tax rate for continuing operations	**(70,264)**	**(75,470)**
Tax effect of:		
Expenses not deductible for tax purposes	(8,941)	(7,277)
Tax-exempted revenues	1,918	7,711
Dividends from consolidates companies & Associates	(5,679)	(3,071)
Gains & Losses taxed at a reduced rate	20	4
Tax incentives deductible from the taxable base	7,943	10,210
Tax computed on other basis	(1,076)	(2,846)
Utilisation of previously unrecognised tax losses	15,812	9,009
Write-down (or reverse of previous write-down) of DTA	(1,404)	(533)
Change in applicable tax rate	1,776	(14,360)
Tax holidays	2,310	4,654
Other tax credits (excluding R&D tax credits)	278	62
Non-recoverable foreign withholding taxes	(4,008)	(4,807)
Previous years adjustments	399	2,617
Other	4,496	(1,082)
Tax expense at the effective tax rate for the year	**(56,420)**	**(75,179)**

The weighted average theoretical tax rate evolved from 30.38% in 2016 to 27.47% in 2017, for the continuing operations.

Excluding the impact of non-recurring items and the IAS 39 effect, the recurring effective tax rate for 2017 was 25.8% for the continuing operations (25.7% including the discontinued operations). This increase compared to the 23.3% in 2016 (25.0% including the discontinued operations) reflects amongst others the changes in the geographical earnings mix.

F14 INTANGIBLE ASSETS OTHER THAN GOODWILL

Thousands of Euros	DEVELOPMENT EXPENSES CAPITALISED	CONCESSIONS, PATENTS, LICENCES, ETC.	SOFTWARE	CO_2 EMISSION RIGHTS	OTHER INTANGIBLE ASSETS	TOTAL
At the beginning of previous year						
Gross value	88,705	18,395	129,538	9,702	35,090	**281,429**
Accumulated amortisation	(48,073)	(11,600)	(91,819)	(21)	(9,986)	**(161,499)**
Net book value at the beginning of previous year	**40,632**	**6,795**	**37,720**	**9,680**	**25,104**	**119,930**
Additions	15,228	59,867	1,418	–	4,251	**80,764**
Disposals	–	–	(88)	(702)	–	**(790)**
Amortisation charged (included in "Depreciation and impairments")	(12,330)	(5,343)	(9,311)	–	(3,596)	**(30,580)**
Impairment losses recognised (included in "Depreciation and impairments")	(1,430)	–	(706)	–	–	**(2,136)**
Emission rights allowances	–	–	–	(100)	–	**(100)**
Translation differences	373	(229)	357	0	149	**650**
Other movements	2,149	2,087	5,143	–	(4,369)	**5,010**
At the end of previous year	**44,621**	**63,177**	**34,534**	**8,879**	**21,539**	**172,749**
Gross value	106,741	80,073	134,489	8,879	31,505	**361,685**
Accumulated amortisation	(62,120)	(16,896)	(99,955)	–	(9,967)	**(188,938)**
Net book value at the end of previous year	**44,621**	**63,177**	**34,534**	**8,879**	**21,538**	**172,748**
Acquisition through business combinations	–	35,513	394	–	–	**35,907**
Additions	14,926	4,578	1,069	231	4,817	**25,621**
Disposals	–	–	(247)	(1,695)	(266)	**(2,207)**
Amortisation charged (included in "Depreciation and impairments")	(11,811)	(10,955)	(9,513)	–	(3,701)	**(35,981)**
Impairment losses recognised (included in "Depreciation and impairments")	(1,644)	–	(522)	–	–	**(2,166)**
Emission rights allowances	–	–	–	(33)	–	**(33)**
Translation differences	(959)	(320)	(652)	(0)	(822)	**(2,755)**
Other movements	(2,246)	(7,275)	4,688	–	(180)	**(5,013)**
At the end of the year	**42,886**	**84,718**	**29,751**	**7,382**	**21,386**	**186,122**
Gross value	117,039	113,120	136,625	7,382	34,466	**408,632**
Accumulated amortisation	(74,152)	(28,402)	(106,874)	–	(13,081)	**(222,509)**
Net book value for continuing operations	**42,887**	**84,718**	**29,751**	**7,382**	**21,385**	**186,122**

"Additions" are mainly explained by capitalised expenses in new information systems and internally generated developments. € 16.2 million are linked to own productions, of which € 14.1 million are development expenses.

The acquisitions through business combination are related mainly to the acquisition of Haldor Topsoe.

The line "other movements" mainly includes the sale of Umicore Vital Thin Film Technologies (China) and the transfer between intangible assets in progress (included under "other intangible assets") and the other categories of intangible assets.

There are no pledges on, or restrictions to, the title on intangible assets, other than disclosed in note F35.

F15 GOODWILL

Thousands of Euros	31/12/2016	31/12/2017
At the end of the previous year		
Gross value	144,935	150,820
Accumulated impairment losses	(13,075)	(18,228)
Net book value at the end of previous year	**131,860**	**132,592**
Acquisition through business combinations	-	14,535
Translation differences	732	(4,442)
At the end of the year	**132,592**	**142,685**
Gross value	150,820	158,536
Accumulated impairment losses	(18,228)	(15,851)
Net book value for continuing operations	**132,592**	**142,685**
Net book value for discontinued operations	676	-

This table includes goodwill related to fully consolidated companies only. Goodwill relating to companies accounted for by the equity method is detailed in note F17.

The change of the period relates to the acquisitions of remaining 50% of Ordeg and Haldor Topsoe entities (see note F8) and to exchange differences.

The goodwill has been allocated to the primary segments as follows:

Thousands of Euros	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	DISCONTINUED OPERATIONS	TOTAL
31/12/2016	37,202	77,050	18,340	676	**133,268**
31/12/2017	51,658	72,745	18,282	-	**142,685**

Management tests annually whether goodwill has suffered any impairment in accordance with the accounting policy stated in note F2. The recoverable amounts of cash-generating units to which goodwill is allocated have been determined based on value-in-use calculations by means of discounted cash flow modelling on the basis of the Group's operational plans which typically look forward five years. On macroeconomic indicators such as currency and metal prices, the testing uses typically prevailing market conditions. The rates used are typically the ones observed on international exchanges in the last quarter of the year.

The 2017 modelling used an average tax rate of 28.5% (in 2016, average tax rates of 27.5% to 28.5% were used) and a weighted average cost of capital post-tax of 8.5% (same as in 2016). Terminal values were determined on the basis of a perpetual growth rate of on average 2% (same as in 2016). Inflation rates were based on guidance coming from national and international institutes like the NBB or ECB.

F16 PROPERTY, PLANT AND EQUIPMENT

Thousands of Euros	LAND AND BUILDINGS	PLANT, MACHINERY AND EQUIPMENT	FURNITURE AND VEHICLES	OTHER TANGIBLE ASSETS	CONSTRUCTION IN PROGRESS AND ADVANCE PAYMENTS	TOTAL
At the beginning of previous year						
Gross value	740,014	1,529,768	192,541	16,481	157,079	**2,635,882**
Accumulated depreciation	(394,724)	(1,065,576)	(138,531)	(14,459)	–	**(1,613,291)**
Net book value at the beginning of previous year	**345,290**	**464,192**	**54,009**	**2,021**	**157,079**	**1,022,591**
Additions	16,192	33,766	9,126	361	147,572	**207,017**
Disposals	(54)	(1,005)	(424)	(1)	(2,653)	**(4,137)**
Depreciations (included in "Depreciation and impairments")	(29,133)	(98,874)	(16,789)	(203)	–	**(144,999)**
Net impairment losses recognised (included in "Depreciation and impairments")	(5,196)	(11,867)	(1,657)	(4)	–	**(18,724)**
Translation differences	3,636	6,279	1,107	(14)	611	**11,618**
Other movements	25,598	106,610	9,947	(108)	(145,009)	**(2,962)**
At the end of previous year	**356,333**	**499,100**	**55,320**	**2,052**	**157,600**	**1,070,404**
Gross value	780,351	1,660,666	202,829	15,727	157,599	**2,817,172**
Accumulated depreciation	(424,018)	(1,161,566)	(147,510)	(13,676)	–	**(1,746,770)**
Net book value at the end of previous year	**356,333**	**499,100**	**55,319**	**2,052**	**157,599**	**1,070,403**
Acquisition through business combinations	57,981	29,214	711	64	1,226	**89,196**
Additions	5,747	25,715	9,234	650	309,710	**351,056**
Disposals	(2,182)	(4,881)	(677)	(3)	(201)	**(7,944)**
Depreciations (included in "Depreciation and impairments")	(29,892)	(108,446)	(15,880)	(161)	–	**(154,379)**
Net impairment losses recognised (included in "Depreciation and impairments")	(26)	(1,427)	(327)	–	–	**(1,779)**
Translation differences	(9,715)	(14,941)	(1,538)	(119)	(4,477)	**(30,790)**
Other movements	29,002	111,585	9,521	(1,475)	(162,984)	**(14,351)**
At the end of the financial year	**407,247**	**535,919**	**56,363**	**1,007**	**300,874**	**1,301,411**
Of which leasing	3,421	28	2	–	–	**3,451**
Gross value	859,433	1,817,170	212,731	15,305	300,874	**3,205,515**
Accumulated depreciation	(452,186)	(1,281,251)	(156,368)	(14,298)	–	**(1,904,103)**
Net book value for continuing operations	**407,247**	**535,919**	**56,363**	**1,007**	**300,874**	**1,301,411**
Gross value	4,056	101	30	–	–	**4,187**
Accumulated amortisation	(635)	(73)	(27)	–	–	**(736)**
Net book value for continuing operations	**3,421**	**28**	**2**	**–**	**–**	**3,451**

The non-maintenance related additions to property, plant and equipment primarily relate to Umicore's growth in clean mobility and recycling. The Energy & Surface Technologies business group accounted for over 60% of the capital expenditures, reflecting in particular the ongoing investment programmes to increase production capacity in cathode materials.

The acquisitions through business combination are related to the acquisitions of Ordeg, Eurotungstene and Haldor Topsoe entities.

The line "other movements" mainly includes the sale of Umicore Vital Thin Film Technologies (China) and the transfer between tangible assets in progress and the other categories.

There are no pledges on, or restrictions to, the title on property, plant and equipment, other than disclosed in note F35.

F17 INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

The investments in companies accounted for using the equity method are composed mainly by the following associates and joint ventures:

	COUNTRY	MEASUREMENT CURRENCY	PERCENTAGE 2016	PERCENTAGE 2017
For continuing operations				
ASSOCIATES				
IEQSA[(1)]	Peru	PEN	40.00	40.00
Ganzhou Yi Hao Umicore Industries	China	CNY	40.00	40.00
Element Six Abrasives	United Kingdom	USD	40.22	40.22
Jiangmen Chancsun Umicore Industry Co.,LTD	China	CNY	40.00	40.00
JOINT VENTURES				
Ordeg[(2)]	Korea	KRW	50.00	100.00

(1) As from 1 July 2017, Ieqsa is again reported in the Corporate segment in continuing operations. IEQSA was reported in discontinued operations in 2016.
(2) In March 2017, Umicore announced and completed the acquisition of the combined 50% shareholdings of Samkwang Glass Ind. Co., Ltd. and OCI Company Ltd. in the Korean automotive catalyst joint venture, Ordeg Co. Ltd. Umicore – which previously held 50% of the equity – now has full ownership of Ordeg since 1 April.

In 2016, the stake in Rezinal (in discontinued operations) was sold in August 2016 to our partner in the joint-venture.

Within this note, only the figures of the continuing operations are shown.

The elements recognised in Other Comprehensive Income for investments accounted for using the equity method are mainly related to employee benefits reserves and translation reserves.

Investments in associates are accounted for in accordance with the equity method and represent approximately 3% of Umicore's consolidated balance sheet total. Umicore has no individual material investments in associates. Considering the objectives of the IFRS 12 disclosure requirements, the most significant associate is Element Six Abrasives, in which Umicore holds 40.22%. Element Six Abrasives is a synthetic diamond supermaterials group, part of De Beers Group, its majority shareholder. The group operates worldwide with primary manufacturing facilities in China, Ireland, Germany, the UK, the US and South Africa. Element Six Abrasives is a profitable group, generating positive cash flow and a stable recurring dividend income for Umicore. The group's functional currency is US dollar. Umicore is represented in the Board of Directors and the audit committee of Element Six Abrasives, which enables to sufficiently protect its interest in this associate. Besides its equity share in this company, Umicore has no other commitments, guarantees or obligations arising from its involvement in this associate. Non-recurring results and material contingencies, if any, in respect of the financial statements of Element Six Abrasives, are separately disclosed under the relevant captions of Umicore's consolidated financial statements.

Thousands of Euros	NET BOOK VALUE	GOODWILL	TOTAL
At the end of previous year	**153,526**	**41,806**	**195,332**
Change in scope	(77,634)	–	**(77,634)**
Profit for the year	29,555	–	**29,555**
Dividends	(12,331)	–	**(12,331)**
Change in other reserves	1,323	–	**1,323**
Translation differences	640	(713)	**(74)**
Other movements	12,116	4,722	**16,838**
At the end of the year for continuing operations	107,194	45,814	**153,008**

Umicore's share in the aggregated balance sheet and profit and loss items of the associates and joint ventures would have been as follows:

Thousands of Euros	31/12/2016	31/12/2017
Assets	305,420	239,481
Liabilities	135,092	113,883
Turnover	328,082	325,655
Net result	16,786	29,555

In the above table, they are no more assets and liabilities related to joint-ventures in 2017 as Umicore has now 100% in Ordeg.

F18 AVAILABLE-FOR-SALE FINANCIAL ASSETS AND LOANS GRANTED

Thousands of Euros	AVAILABLE-FOR-SALE FINANCIAL ASSETS	LOANS GRANTED
NON-CURRENT FINANCIAL ASSETS		
At the beginning of previous year	**29,236**	**1,534**
Increase	8,554	80
Decrease	(9,709)	0
Impairment losses (included in "Income from other financial instruments")	(1,949)	0
Reversals of impairment losses (included in "Income from other financial instruments")	161	0
Translation differences	24	(36)
Fair value recognised in equity	111	0
Other movements	(14)	(377)
At the end of previous year	**26,414**	**1,201**
Acquisition through business combinations	3	432
Change in scope	0	340
Increase	119	9,785
Decrease	(570)	(93)
Impairment losses (included in "Income from other financial instruments")	(7,229)	0
Translation differences	(18)	(373)
Fair value recognised in equity	3,738	0
Other movements	(122)	(8)
At the end of the financial year for continuing operations	**22,331**	**11,285**
CURRENT FINANCIAL ASSETS		
At the end of the preceding financial year	**0**	**14,787**
Decrease	0	(13,000)
Translation differences	0	(37)
At the end of the financial year for continuing operations	**0**	**1,750**

The movements of the available-for-sale financial assets are mainly linked to the Nyrstar shares.

The movements in the loans granted are related to repayment of loans granted in the context of the sale of the Zinc Chemical activities and a new loan granted in the context of the sale of Umicore Vital Thin Film Technologies in China and to a convertible loan in Luxemburg.

F19 INVENTORIES

Thousands of Euros	31/12/2016	31/12/2017
ANALYSIS OF INVENTORIES		
Base product with metal hedging – gross value	1,018,679	1,401,385
Base product without metal hedging – gross value	162,865	216,769
Consumables – gross value	61,291	63,263
Write-downs	(66,976)	(70,289)
Advances paid	5,680	15,024
Contracts in progress	7,282	2,272
Total inventories for continuing operations	**1,188,822**	**1,628,423**
Total of discontinued operations	92,531	–

Inventories have increased by € 439.6 million compared with December 2016. This increase is mainly due to higher activities and higher metal prices but also to new business combinations.

Reversals of impairments of permanently tied-up metal inventories had an impact of € 1.2 million for continuing operations.

The expense recognised in Raw Materials and Consumables in the income statement amounts to € 406.2 million, before the IAS 39 adjustment and for the continuing operations.

Based on metal prices and currency exchange rates prevailing at the closing date, the value of metal inventory would have been € 1,050 million higher than the book value. However, these inventories cannot be realised as they are tied up in manufacturing and commercial operations.

There are no pledges on, or restrictions to, the title on inventories.

F20 TRADE AND OTHER RECEIVABLES

Thousands of Euros	NOTE	31/12/2016	31/12/2017
NON-CURRENT			
Cash guarantees and deposits		9,532	12,068
Other receivables maturing > 1 year		1,158	1,048
Assets employee benefits		424	1,029
Total for continuing operations		**11,114**	**14,145**
Total of discontinued operations		6,188	–
CURRENT			
Trade receivables (at cost)		706,656	1,075,389
Trade receivables (write-down)		(9,279)	(7,509)
Other receivables (at cost)		78,778	145,519
Other receivables (write-down)		(6,893)	(4,513)
Interest receivable		244	273
Fair value receivable financial instruments held for cash flow hedging	F33	21,347	46,628
Fair value receivable other financial instruments	F33	15,959	11,169
Deferred charges and accrued income		37,458	68,705
Total for continuing operations		**844,271**	**1,335,660**
Total of discontinued operations		23,931	–

Current trade receivables have increased by € 491.4 million. The increase is mainly due to higher business volumes through the year, higher metal prices but also to new business combinations as per note F8.

Thousands of Euros	TOTAL	NOTE DUE	OVERDUE BETWEEN 0-30 DAYS	30-60 DAYS	60-90 DAYS	> 90 DAYS
AGEING BALANCE ANALYSIS AT THE END OF PREVIOUS YEAR						
Trade receivables (w/o doubtful and securitised receivables) – at cost	**685,937**	554,124	96,564	23,543	4,552	7,152
Other receivables – at cost	**78,778**	77,745	(137)	304	(517)	1,382
AGEING BALANCE ANALYSIS AT THE END OF YEAR						
Trade receivables (w/o doubtful and securitised receivables) – at cost	**1,053,414**	818,341	177,391	47,036	4,680	5,967
Other receivables – at cost	**145,519**	139,350	1,785	(105)	237	4,251

CREDIT RISK – TRADE RECEIVABLES

Thousands of Euros	TRADE RECEIVABLES (WRITE-DOWN)	OTHER RECEIVABLES (WRITE-DOWN)	TOTAL
AT THE BEGINNING OF PREVIOUS YEAR	(8,570)	(5,253)	**(13,818)**
Change in scope	(724)	–	**(724)**
Impairment losses recognised in P&L	(152)	(1,633)	**(1,785)**
Reversal of impairment losses	104	1	**105**
Impairment written off against asset carrying amount	928	–	**928**
Other movements	2	(0)	**2**
Translation differences	(866)	(10)	**(876)**
At the end of previous year	**(9,279)**	**(6,894)**	**(16,169)**
AT THE BEGINNING OF THE FINANCIAL YEAR	(9,279)	(6,894)	**(16,169)**
Impairment losses recognised in P&L	(5,140)	(608)	**(5,748)**
Reversal of impairment losses	5,951	2,981	**8,932**
Impairment written off against asset carrying amount	242	–	**242**
Other movements	290	–	**286**
Translation differences	427	7	**433**
At the end of the financial year for continuing operations	**(7,509)**	**(4,514)**	**(12,023)**

In principle, Umicore uses credit insurance as a means to mitigate the credit risk related to trade receivables. Two credit policies have been concluded with two different insurers. At closing, € 566 million of the group trade receivables of the continuing operations were covered by a policy where indemnification in case of non payment amounts to 95% with an indemnification cap set at regional or country level. The other policy covered € 188 million of trade receivables with a global annual deductible of € 5 million and a maximum indemnity per year of € 70 million.

Finally some of our businesses function without credit insurance and instead internal credit limits are set based on available financial information and business knowledge. Theses limits are duly reviewed and approved by management.

F21 DEFERRED TAX ASSETS AND LIABILITIES

Thousands of Euros	31/12/2016	31/12/2017
Tax assets and liabilities		
Income tax receivables	32,517	36,036
Deferred tax assets	117,605	114,686
Income tax payable	(57,666)	(62,830)
Deferred tax liabilities	(6,924)	(3,540)
Net deferred taxes for discontinued operations	3,648	–

	ASSETS		LIABILITIES		NET	
Thousands of Euros	2016	2017	2016	2017	2016	2017
At the end of preceding financial year	**104,057**	**117,605**	**(6,235)**	**(6,924)**	**97,822**	**110,681**
Deferred tax recognised in the P&L	1,546	371	13,080	1,164	14,626	1,535
Deferred tax recognised in equity	(9,116)	(10,009)	4,585	3,173	(4,531)	(6,836)
Acquisitions through business combination	–	7,821	–	852	–	8,673
Change in scope	(162)	28	(75)	–	(237)	28
Translation adjustments	3,208	(3,147)	(152)	158	3,056	(2,989)
Transfer	18,202	1,965	(18,127)	(1,964)	75	1
Other movements	(130)	52	–	–	(130)	52
At the end of financial year for continuing operations	**117,605**	**114,686**	**(6,924)**	**(3,540)**	**110,681**	**111,146**
Total of discontinued operations	3,812	–	(164)	–	3,648	–
DEFERRED TAX IN RESPECT OF EACH TYPE OF TEMPORARY DIFFERENCE						
Intangible assets	9,241	8,857	(17,618)	(16,139)	(8,377)	(7,282)
Goodwill on fully consolidated companies	–	184	(565)	(394)	(565)	(210)
Property, plant and equipment	4,929	8,032	(22,110)	(19,386)	(17,181)	(11,354)
Long-term receivables	46	365	(33)	(129)	13	236
Inventories	29,692	36,452	(17,120)	(18,999)	12,572	17,453
Trade and other receivables	5,590	10,932	(9,107)	(15,549)	(3,517)	(4,617)
Group Shareholder's equity	290	–	(508)	(3,557)	(218)	(3,557)
Long-term Financial Debt and other payable	12,090	9,435	(736)	(1,364)	11,354	8,071
Provisions Employee Benefits	67,894	68,226	(1,444)	(1,582)	66,450	66,644
Provisions for Environment	17,873	13,299	(531)	(535)	17,342	12,764
Provisions for other liabilities and charges	4,816	3,836	(420)	(3,242)	4,396	594
Current Financial Debt	2,714	37	–	–	2,714	37
Current Provisions for Environment	1,878	3,073	–	–	1,878	3,073
Current Provisions for Other Liabilities & Charges	5,798	8,340	(8)	(8)	5,790	8,332
Trade and other payables	15,419	23,709	(2,232)	(8,769)	13,187	14,940
Total deferred tax due to temporary differences	**178,270**	**194,777**	**(72,433)**	**(89,653)**	**105,837**	**105,124**
Tax losses to carry forward	**77,156**	**53,464**	**–**	**–**	**77,156**	**53,464**
Investments deductions	2,152	1,541	–	–	2,152	1,541
Notional interest carried forward	8,549	719	–	–	8,549	719
Other	5,207	5,959	–	–	5,207	5,959
Deferred tax assets not recognised	(88,220)	(55,662)	–	–	(88,220)	(55,662)
Total tax assets/liabilities	**183,114**	**200,798**	**(72,433)**	**(89,653)**	**110,681**	**111,146**
Compensation of assets and liabilities within same entity	(65,509)	(86,112)	65,509	86,112		
Net amount	**117,605**	**114,686**	**(6,924)**	**(3,540)**	**110,681**	**111,146**

	2016	2017	2016	2017
Thousands of Euros	BASE	BASE	TAX	TAX
Amount of deductible temporary differences, unused tax losses or tax credits for which no deferred tax asset is recognised in the balance sheet				
Expiration date with no time limit	302,275	191,477	88,220	55,662

The changes of the period in temporary differences are charged to the income statement except those arising from events that were recognised directly in the other comprehensive income.

The main movements in deferred tax recognised directly in the other comprehensive income are deferred taxes generated by temporary differences included within the lines "Trade and other receivables" (negative by € 4.4 million), "Trade and other payables" (positive by € 2.4 million) and "Provisions for employee benefits" (negative by € 4.8 million).

Deferred tax assets are only recognised to the extent that their utilisation is probable, i.e. if a tax benefit is expected in future periods. The Group assesses a recoverability in a range of 5 to 10 years. The actual tax results in future periods may differ from the estimate made at the time the deferred taxes are recognised.

Unrecognised deferred tax assets of € 55.7 million mainly arise from tax losses (€ 50.2 million), deductions for investments (€ 1.8 million), and temporary differences on property plant and equipment (€ 2.0 million).

In accordance with IAS 12, a deferred tax liability on untaxed reserves of the Belgian companies, amounting potentially to € 37.5 million, has not been recognised as management anticipates that this liability will not be incurred in a foreseeable future.

F22 NET CASH AND CASH EQUIVALENTS

Thousands of Euros	31/12/2016	31/12/2017
CASH AND CASH EQUIVALENTS		
Short-term investments: bank term deposits	10,521	16,948
Short-term investments: term deposits (other)	25	41
Cash-in-hands and bank current accounts	73,914	151,126
Total cash and cash equivalents	**84,460**	**168,115**
Bank overdrafts	13,185	12,218
Net cash as in Cash Flow Statement for continuing operations	**71,275**	**155,897**
Total of discontinued operations	45,326	–

All cash and cash equivalents are fully available for the Group.

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions.

Due to the dynamic nature of the underlying businesses, the group maintains flexibility in funding by maintaining availability under committed credit lines. Excess liquidities are invested for very short periods and are spread over a limited number of banks, all enjoying a satisfactory credit rating.

F23 CURRENCY TRANSLATION DIFFERENCES AND OTHER RESERVES

The detail of the Group's share in currency translation differences and other reserves is as follows:

Thousands of Euros	AVAILABLE-FOR-SALE FINANCIAL ASSETS RESERVES	CASH FLOW HEDGE RESERVES	DEFERRED TAXES DIRECTLY RECOGNISED IN OCI	CHANGES IN POST-EMPLOYMENT BENEFITS, ARISING FROM CHANGES IN ACTUARIAL ASSUMPTIONS	SHARE-BASED PAYMENT RESERVES	CURRENCY TRANSLATION DIFFERENCES	TOTAL
Balance at the beginning of previous year	**–**	**(21,873)**	**63,330**	**(208,473)**	**28,690**	**(37,191)**	**(175,517)**
Remeasurements recognised in other comprehensive income	111	23,582	(438)	(26,246)	3,820	–	**829**
Remeasurements derecognised out of other comprehensive income	–	12,624	(4,174)	–	–	–	**8,450**
Transfer from/to retained earnings	–	–	–	–	(9,094)	–	**(9,094)**
Change in scope	–	108	(746)	3,777	(166)	1,106	**4,079**
Exchange differences	–	(214)	63	(1,051)	–	28,255	**27,054**
Balance at the end of previous year	**111**	**14,227**	**58,035**	**(231,993)**	**23,250**	**(7,830)**	**(144,199)**
Balance at the beginning of the year	**111**	**14,227**	**58,035**	**(231,993)**	**23,250**	**(7,830)**	**(144,199)**
Remeasurements recognised in other comprehensive income	3,738	22,666	(9,308)	2,369	6,418	–	**25,884**
Remeasurements derecognised out of other comprehensive income	–	(7,167)	2,749	14	–	–	**(4,404)**
Transfer from/to retained earnings	–	–	–	–	(6,402)	–	**(6,402)**
Change in scope	–	–	(3,711)	5,769	166	1,954	**4,178**
Exchange differences	–	(221)	97	3,918	–	(81,366)	**(77,572)**
Balance at the end of the year	**3,849**	**29,505**	**47,862**	**(219,923)**	**23,433**	**(87,242)**	**(202,517)**

Gains and losses recognised in the other comprehensive income (OCI) on available-for-sale financial assets relate to the fair value adjustments of the period on the Nyrstar shares (refer to note F18 on available-for-sale financial assets).

The net gains recognised in the OCI regarding cash flow hedges (€ 22.7 million) are the changes in fair value of new cash flow hedging instruments or existing ones at opening but which have not yet expired at year end. The net gains derecognised from OCI (€ 7.2 million) are the fair values of the cash flow hedging instruments existing at the opening which expired during the year. A gain of € 9.8 million was recognised in the income statement, as a result of expired cash flow hedges.

New net remeasurements as a result of changes in the actuarial assumptions on the defined post-employment benefit plans have been recognised in OCI for € 2.4 million.

The 2017 shares and stock option plans have led to a share-based payment reserve increase of € 6.4 million, including discontinued operations (refer to note F10 on employee benefits). € 6.4 million, linked to exercised options and free shares plans, have been transferred to retained earnings.

The change in currency translation differences is mainly due to the weakening of the US dollar (USD), Korean won (KRW), Brazilian real (BRL) and Chinese yuan (CNY) compared to the Euro currency.

F24 FINANCIAL DEBT

Thousands of Euros	BANK LOANS	OTHER LOANS	TOTAL
NON-CURRENT			
At the beginning of previous year	**70,013**	**1,286**	**71,296**
Increase	–	3,330	**3,330**
Decrease	(50,013)	(193)	**(50,205)**
Transfers	–	(27)	**(27)**
At the end of previous year	**20,000**	**4,396**	**24,394**
Increase	690,000	(0)	**690,000**
Decrease	0	(286)	**(285)**
Transfers	(20,000)	(4)	**(20,004)**
At the end of the financial year for continuing operations	**690,000**	**4,106**	**694,104**
CURRENT PORTION OF LONG-TERM FINANCIAL DEBTS			
At the end of the preceding financial year	**–**	**144**	**144**
Increase/decrease	20,000	3	**20,003**
At the end of the financial year for continuing operations	**20,000**	**147**	**20,147**

Thousands of Euros	SHORT-TERM BANK LOANS	BANK OVERDRAFTS	SHORT-TERM LOAN: COMMERCIAL PAPER	OTHER LOANS	TOTAL
CURRENT					
At the end of the preceding financial year	**117,205**	**13,185**	**268,607**	**1,646**	**400,643**
Increase/decrease (including CTD's)	87,799	(967)	(192,109)	(1,646)	(106,923)
At the end of the financial year for continuing operations	**205,004**	**12,218**	**76,498**	**0**	**293,720**

Net financial debt at 31 December 2017 stood at € 839.9 million, up from € 296.3 million at the start of the year, largely driven by Umicore's capital expenditures and net working capital spending as well as the acquisitions in Automotive Catalysts and Cobalt & Specialty Materials.

The bank loans mainly consist of:

- two long-term private debt placements denominated in Euros for a total of € 690.0 million (fair value € 686 million);
- a € 20.0 million bank loan maturing in December 2018. The fair value of the bank loan was € 20.0 million on 31 December 2017 based on the DCF-method;
- short-term borrowings of € 205.0 million. The maturity dates of these bank loans are very short term and are negotiated at the convenience of the treasury department at market conditions as part of its daily management of treasury operations;
- commercial papers short-term issuances for € 76.5 million;
- bank overdrafts of € 12.2 million assimilated to utilisation of overnight bank credit facilities.

On 31 December 2017, there were no outstanding advances under the € 300 million Syndicated Bank Credit Facility maturing in October 2021 and no outstanding advances under the € 215 million Syndicated Bank Credit Facility maturing in September 2018.

The aforementioned Syndicated Bank Credit Facilities and the two long-term private debt placements require the Company to comply with certain financial covenants. Umicore has not faced any breach of those covenants in 2017 or in previous years.

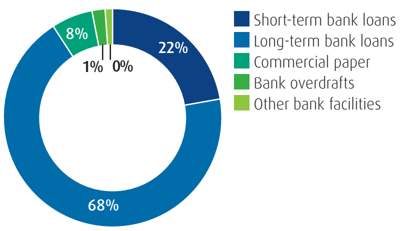
The long-term debts only include debts in Euros.

The net gearing ratio end of 2017 of 31.1% (13.8% in 2016) is well within the group's targeted capital structure limits.

Thousands of Euros	EUROS	TOTAL
Analysis of long-term debts by currencies (including current portion)		
Bank loans	710,000	**710,000**
Other loans	4,252	**4,252**
Non-current financial debts (including current portion)	**714,252**	**714,252**

Thousands of Euros	2016	2017
Non-current financial debt	24,394	694,104
Current portion of non-current financial debt	144	20,147
Current financial debt	400,643	293,720
Cash and cash equivalents	(84,460)	(168,115)
Net financial debt	**340,721**	**839,857**
Total of discontinued operations	(44,468)	–
Total net financial debt including discontinued operations	**296,252**	**839,857**

GROSS OUTSTANDING DEBT



Millions of Euros	2016	2017
Net financial debt including discontinued operations	296.3	**839.9**
Equity	1,848.0	**1,862.6**
Total	2,144.3	**2,702.5**
Gearing ratio (%)	13.8	**31.1**

F25 TRADE DEBT AND OTHER PAYABLES

Thousands of Euros	NOTE	31/12/2016	31/12/2017
NON-CURRENT			
Long-term trade payables		25,132	26,205
Other long-term debts		3,988	3,681
Investment grants and deferred income from grants		12,536	10,555
Total for continuing operations		**41,656**	**40,442**
Total of discontinued operations		182	-
CURRENT			
Trade payables		843,498	1,209,684
Advances received on contracts in progress		21,023	31,947
Tax payable (other than income tax)		26,696	27,742
Payroll and related charges		95,780	122,250
Other amounts payable		17,635	44,244
Dividends payable		11,687	11,696
Accrued interest payable		584	5,355
Fair value payable financial instrument held for cash flow hedging	F33	7,118	17,122
Fair value payable other financial instruments	F33	11,725	12,035
Accrued charges and deferred income		125,625	157,740
Total for continuing operations		**1,161,371**	**1,639,815**
Total of discontinued operations		103,478	-

Trade payables increased by € 478.4 million, mainly due to higher volumes and higher metal prices. The increase is also due to new business combinations.

The tax payables (other than income tax) mainly include VAT payables.

F26 LIQUIDITY OF THE FINANCIAL LIABILITIES

PREVIOUS FINANCIAL YEAR

	EARLIEST CONTRACTUAL MATURITY					
Thousands of Euros	< 1 MONTH	1 TO 3 MONTHS	3 MONTHS – 1 YEAR	1 TO 5 YEARS	> 5 YEARS	TOTAL
FINANCIAL DEBT	**90,491**	**63,940**	**246,356**	**21,655**	**2,740**	**425,180**
Current	**90,491**	**63,940**	**246,356**	**–**	**–**	**400,786**
Short-term bank loans	69,113	13,977	34,115	–	–	**117,205**
Bank overdrafts	3,282	–	9,903	–	–	**13,185**
Short-term loan: commercial paper	16,445	49,932	202,230	–	–	**268,607**
Other loans	1,639	6	–	–	–	**1,646**
Current portion of other long-term loans	12	24	108	–	–	**144**
Non-current	**–**	**–**	**–**	**21,655**	**2,740**	**24,394**
Bank loans	–	–	–	20,000	–	**20,000**
Other loans	–	–	–	1,655	2,740	**4,394**
TRADE AND OTHER PAYABLES	**727,819**	**319,091**	**110,201**	**9,737**	**36,181**	**1,203,029**
Current	**727,819**	**319,091**	**110,201**	**4,262**	**–**	**1,161,373**
Trade payables	571,534	246,804	25,159	–	–	**843,498**
Advances received on contracts in progress	1,462	7,069	12,491	–	–	**21,023**
Tax payable (other than income tax)	24,163	2,077	456	–	–	**26,696**
Payroll and related charges	21,704	29,675	44,401	–	–	**95,780**
Other amounts payable	9,611	1,829	6,196	–	–	**17,635**
Dividends payable	11,687	–	–	–	–	**11,687**
Accrued interest payable, third parties	(91)	672	3	–	–	**584**
Fair value payable financial instrument held for cash flow hedging	316	651	2,627	3,525	–	**7,118**
Fair value payable other financial instruments	1,529	6,157	3,303	737	–	**11,725**
Accrued charges and deferred income	85,904	24,156	15,565	–	–	**125,625**
Non-current	**–**	**–**	**–**	**5,475**	**36,181**	**41,656**
Long-term trade payables	–	–	–	–	25,132	**25,132**
Other long-term debts	–	–	–	89	3,899	**3,988**
Investment grants and deferred income from grants	–	–	–	5,386	7,151	**12,536**

FINANCIAL YEAR

Thousands of Euros	EARLIEST CONTRACTUAL MATURITY < 1 MONTH	1 TO 3 MONTHS	3 MONTHS – 1 YEAR	1 TO 5 YEARS	> 5 YEARS	TOTAL
FINANCIAL DEBT	**116,741**	**64,273**	**132,853**	**694,104**	**0**	**1,007,972**
Current	**116,741**	**64,273**	**132,853**	**–**	**–**	**313,868**
Short-term bank loans	115,545	64,249	25,210	–	–	**205,004**
Bank overdrafts	1,184	–	11,034	–	–	**12,218**
Short-term loan: commercial paper	–	–	76,498	–	–	**76,498**
Current portion of long-term bank loans	–	–	20,000	–	–	**20,000**
Current portion of other long-term loans	12	25	111	–	–	**147**
Non-current	**–**	**–**	**–**	**694,104**	**0**	**694,104**
Bank loans	–	–	–	690,000	–	**690,000**
Other loans	–	–	–	4,104	0	**4,104**
TRADE AND OTHER PAYABLES	**1,078,419**	**393,214**	**162,297**	**12,405**	**33,921**	**1,680,256**
Current	**1,078,419**	**393,214**	**162,297**	**5,884**	**–**	**1,639,814**
Trade payables	848,563	309,995	51,128	–	–	**1,209,684**
Advances received on contracts in progress	10,889	7,866	13,192	–	–	**31,947**
Tax payable (other than income tax)	20,343	6,805	593	–	–	**27,742**
Payroll and related charges	36,308	35,221	50,721	–	–	**122,250**
Other amounts payable	16,591	7,297	20,356	–	–	**44,244**
Dividends payable	11,696	–	–	–	–	**11,696**
Accrued interest payable, third parties	4,255	1,087	14	–	–	**5,355**
Fair value payable financial instrument held for cash flow hedging	641	2,353	8,244	5,884	–	**17,122**
Fair value payable other financial instruments	3,156	7,439	1,440	–	–	**12,035**
Accrued charges and deferred income	125,978	15,151	16,610	–	–	**157,740**
Non-current	**–**	**–**	**–**	**6,521**	**33,921**	**40,442**
Long-term trade payables	–	–	–	1,311	24,894	**26,205**
Other long-term debts	–	–	–	–	3,681	**3,681**
Investment grants and deferred income from grants	–	–	–	5,210	5,345	**10,555**

F27 PROVISIONS FOR EMPLOYEE BENEFITS

The Group has various legal and constructive defined benefit obligations, the vast majority of them being "final pay" plans linked to the Belgian and German operations.

Thousands of Euros	POST-EMPLOYMENT BENEFITS, PENSIONS AND SIMILAR	POST-EMPLOYMENT BENEFITS – OTHER	TERMINATION BENEFITS EARLY RETIREMENT AND SIMILAR	OTHER LONG-TERM EMPLOYEE BENEFITS	TOTAL
At the end of the previous year	**289,147**	**4,074**	**29,127**	**15,559**	**337,907**
Acquisition through business combinations	2,254	–	–	206	**2,460**
Increase (included in "Payroll and related benefits")	26,683	275	6,652	1,245	**34,855**
Reversal (included in "Payroll and related benefits")	(18)	(1)	–	(73)	**(92)**
Use (included in "Payroll and related benefits")	(27,284)	(82)	(8,877)	(592)	**(36,835)**
Interest and discount rate impacts (included in "Finance cost – Net")	5,429	19	152	251	**5,852**
Translation differences	(333)	(77)	(63)	(13)	**(486)**
Transfers	823	3	(816)	351	**363**
Recognised in other comprehensive income	(840)	(372)	0	(0)	**(1,212)**
At the end of the financial year for continuing operations	**295,861**	**3,840**	**26,177**	**16,934**	**342,812**

Thousands of Euros	31/12/2016	MOVEMENTS 2017	31/12/2017
Belgium	57,599	(3,961)	53,638
Germany	259,166	7,385	266,551
Subtotal	**316,765**	**3,424**	**320,189**
Other entities	19,119	3,504	22,623
Total for continuing operations	**335,884**	**6,928**	**342,812**
Discontinued operations	36,896	(36,896)	–

The first table shows the balances and the movements in provisions for employee benefits of the fully consolidated subsidiaries only. There is a difference in the line "Recognised in other comprehensive income" compared to what is shown in note F23 as that note also includes associates and joint ventures that are accounted for according to the equity method.

The following disclosure requirements under IAS 19 amended were derived from the reports obtained from external actuaries.

Umicore defined benefit pension schemes for the 2 major countries are the following:

BELGIUM

Characteristics of the Defined Benefit plans
Umicore companies in Belgium operate defined benefit plans that provide retirement benefits which are related to salary and age or length of service. These retirement plans represent a defined benefit obligation of € 223.6 million and assets for € 170.0 million. They foresee in a lump sum payment upon retirement and benefits in case of death or disability prior to retirement.

Funding
The plans are externally funded through either insurance companies or a self-administrated institution for occupational retirement provision ("IORP"). For the IORP, the necessary governance processes for risk management are in place. One of the risk measures is to perform on a regular basis a "Continuity Test" in which the consequences of strategic investment policies are analysed in terms of risk- and-return profiles and solvency measures. A statement of investment principles and funding policy are derived from this. The purpose is to have a well-diversified asset allocation to control the risk.

Fair values of plan assets
The fair values of the equity and debt instruments are determined based on quoted market prices in active markets (level 1 fair value classification). The plans hold no direct positions in Umicore shares or bonds, nor do they own any property used by an Umicore entity. Investments are well diversified so that the failure of any single investment would not have a material impact on the overall level of assets.

GERMANY

Characteristics of the Defined Benefit plans
The post-employment benefits are mainly unfunded pension plans of defined benefit type providing retirement, disability and death benefits. All benefit plans are based on final or final average pay beside the deferred compensation plan.
The benefits of the deferred compensation plan are based on annual converted salary and provide a guaranteed interest of 3.0% p.a. (6.0% p.a. for salary conversions before 2014). All retirement plans represent a defined benefit obligation of € 273.3 million and assets for € 6.8 million.

Funding
As mentioned here above, the post-employment benefits are mainly unfunded plans. A minor part is funded by pledged reinsurance contracts.

Fair values of plan assets
All plan assets relate to pledged insurance contracts and have no quoted market price.

The most significant risks related to the defined benefit plans are:

- **Asset volatility**: The plan liabilities are calculated using a discount rate set with reference to corporate bond yields; if plan assets underperform this yield, this will create a deficit.
- **Changes in bond yields**: A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plan's bond holdings.
- **Salary risk**: The majority of the plans' benefit obligations are calculated by reference to the future salaries of plan members. As such, any salary increase of plan members higher than expected will lead to higher liabilities.
- **Longevity risk**: All pension plans beside the new deferred compensation plan as from 2014 provide life annuities which involve the risk of longevity i.e. the risk that the payment period of the pension increases due to the increase in life expectancy. The company uses mortality rates which depend on the year of birth to include this risk in the pension obligation.
- **Risk of cash outflow**: Since death as active and disability benefits are provided there is a risk of cash outflow before retirement.
- **Legislation risks**: If the law which define the benefit changes, it can result in a change of the obligations.

Some additional risks are related to Germany only:

- There is a risk that adjustments of pensions paid by the "Pensionskasse Degussa" are not fully borne by the "Pensionskasse" and therefore can result in an additional unfunded pension obligation due to a guaranteed interest rate of 3.5%. As it is not possible to apply the full IAS 19 calculation method, the fund is evaluated as a Defined Contribution plan. The risk of the additional obligation expected until end of 2022 has been included in the pension obligation.
- The old deferred compensation plan provides a guaranteed interest rate of 6% which increases the risk for a pension cost in addition to the converted salary. The plan has been closed at 31 December 2013 and replaced by a plan with no significant risk in this respect.

And some risks are related to Belgium only:

- Because of the Belgian legislation applicable to 2nd pillar pension plans (so-called "Law Vandenbroucke"), all Belgian Defined Contribution plans have to be considered under IFRS as Defined Benefit plans. Law Vandenbroucke states that in the context of defined contribution plans, the employer must guarantee a minimum return of 3.75% on employee contributions and 3.25% on employer contributions. However, shortly before year end 2015, a change in the Belgian Law was enacted resulting in a decrease of the guaranteed return from 3.25 % to a minimum interest rate defined based upon the Belgian 10-year interest rate but within the range 1.75% – 3.25%. The new rate (currently 1.75%) applies for the years after 2015 on future contributions and also on the accumulated past contributions as at 31 December 2015 if the financing organism does not guarantee a certain result on contributions until retirement age. If the organism does guarantee such a result, the rates 3.25/3.75% still apply.

Because of this minimum guaranteed return, the employer is exposed to a financial risk: further contributions could be required if the return on assets would not be sufficient to reach the minimum benefits to be paid. The group has plans that are financed through insurance contract as well as one plan financed through an IORP. The related defined benefit obligations have been aggregated with the other obligations for defined benefit plans. The Projected Unit Credit (PUC) methodology has been used.

Total defined benefit obligations related to those plans amounts to € 94.3 million as at the end of December 2017 and related plan assets to € 90.2 million.

Thousands of Euros	2016	2017
CHANGE IN BENEFIT OBLIGATION		
Benefit obligation at beginning of the year	**469,027**	**521,153**
Current service cost	25,382	29,236
Interest cost	9,950	9,612
Plan Participants' Contributions	781	843
Remeasurements - changes in demographic assumptions	5,427	(2,233)
Remeasurements - changes in financial assumptions	23,600	2,964
Remeasurements - experience adjustments	14,861	4,611
Benefits paid from plan/company	(21,084)	(22,994)
Expenses paid	(1,582)	(2,080)
Plan combinations	(6,060)	13,277
Exchange rate changes	851	(2,368)
Benefit obligation at end of the year	**521,153**	**552,021**

Thousands of Euros	2016	2017
CHANGE IN PLAN ASSETS		
Fair value of plan assets at the beginning of the year	**156,670**	**183,246**
Expected return on plan assets	2,863	3,403
Remeasurements on plan assets	16,036	5,286
Employer contributions	28,982	32,265
Member contributions	781	843
Benefits paid from plan/company	(21,084)	(22,994)
Expenses paid	(1,615)	(2,145)
Net transfer in/(out) (including the effect of any business combinations/divestitures)	241	11,836
Exchange rate changes	372	(1,966)
Fair value of plan assets at the end of the year	**183,246**	**209,774**

Pension plans mainly in Belgium, Korean, Liechtenstein, Germany and Japan are wholly or partly funded with assets covering a substantial part of the obligations. All other plans have no material funding or are unfunded.

Thousands of Euros	2016	2017
AMOUNT RECOGNISED IN THE BALANCE SHEET		
Defined benefit obligations	521,153	552,021
Fair value of plan assets	183,246	209,774
Funded Status	**337,907**	**342,247**
Effect of asset ceiling/onerous liability	–	–
Net liability (asset)	**337,907**	**342,247**
COMPONENTS OF PENSION COSTS		
Amounts recognised in profit and loss statement		
Current service cost	25,382	29,236
Interest cost	9,950	9,612
Interest income on plan assets	(2,863)	(3,403)
Remeasurement of Other Long Term Benefits	1,319	1,176
Administrative expenses and taxes	33	36
Total pension cost recognised in P&L account	**33,821**	**36,657**
Total of discontinued operations	2,662	2,662
Amounts recognised in other comprehensive income		
Cumulative remeasurements at opening	**169,220**	**195,689**
Remeasurements of the year	26,706	(1,212)
Minorities	(319)	151
Recycled into P&L	–	(81)
Exchange differences	82	(233)
Total recognised in the OCI at subsidiaries	**195,689**	**194,314**
Remeasurements at associates and joint ventures	30,551	25,606
Total recognised in the OCI	**226,241**	**219,921**
Total of discontinued operations	10,395	–
Remeasurements (recognised in other comprehensive income)		
Effect of changes in demographic assumptions	5,364	(2,147)
Effect of changes in financial assumptions	23,337	2,758
Effect of experience adjustments	13,782	3,465
(Return) on plan assets (excluding interest income)	(15,950)	(5,167)
Total remeasurements included in Other Comprehensive Income	**26,533**	**(1,091)**
Total of discontinued operations	1,527	830

The interest cost and return on plan assets as well as the discount rate impact on the non-post employment benefit plans, are recognised under the finance cost in the income statement (see note F11). All other elements of the expense of the year are classified under the operating result in the "wages, salaries and direct social advantages".

Remeasurements of the year recognised in OCI originate mainly from a change in discount rates on the pension plans and differences between the expected and actual return on plan assets.

	2016	2017
PRINCIPAL ACTUARIAL ASSUMPTIONS		
Weighted average assumptions to determine benefit obligations at year end		
Discount rate (%)	1.73	1.73
Rate of compensation increase (%)	2.76	2.81
Rate of price inflation (%)	1.78	1.79
Rate of pension increase (%)	1.48	1.38
Weighted average assumptions used to determine net cost		
Discount rate (%)	2.12	1.66
Rate of compensation increase (%)	2.94	2.76
Rate of price inflation (%)	2.00	1.78
Rate of pension increase (%)	1.61	1.48

	2017	
Thousands of Euros	FAIR VALUE OF ALL PLAN ASSETS	FAIR VALUE OF PLAN ASSETS WITH QUOTED MARKET PRICE
Plan assets		
Cash and cash equivalents	11,151	11,145
Equity instruments	36,466	36,455
Debt instruments	78,025	77,899
Real estate	8,048	8,042
Assets held by insurance company	69,471	58,784
Other	6,613	1,279
Total plan assets	**209,774**	**193,604**

Assumptions are recommended by the local actuaries in line with the IAS 19 revised. The standard reference for the Eurozone is iBOXX AA Index yield and similar indexes are used for the other regions. Mortality tables used are country specific.

Other plan assets are predominantly invested in insurance contracts and bank term deposits. The expected long-term rate of return on assets assumptions is documented for the individual plans as recommended by the local actuaries.

	2017	
Thousands of Euros	VALUATION TREND +0.25%	VALUATION TREND -0.25%
Sensitivity to trend rate assumptions on discount rate		
Present value of defined benefit obligation	523,131	561,550
Weighted average duration of benefit obligation (in years)	13.70	14.67
Sensitivity to trend rate assumptions on inflation rate		
Present value of defined benefit obligation	544,248	520,134
Sensitivity to trend rate assumptions on salary increase rate		
Present value of defined benefit obligation	548,387	535,583

Thousands of Euros	2016	2017
BALANCE SHEET RECONCILIATION		
Balance sheet liability (asset) as of previous year	**312,357**	**337,907**
Pension expense recognised in P&L in the financial year	33,821	36,657
Amounts recognised in SoCI	26,533	(1,091)
Employer contributions via funds in the financial year	(17,075)	(20,712)
Employer contributions paid directly in the financial year	(11,907)	(11,553)
Amounts recognised due to plan combinations	(6,301)	1,441
Exchange rate adjustment – (gain)/loss	479	(402)
Balance sheet liability (asset) as of end of the year	**337,907**	**342,247**

AT 31 DECEMBER

Thousands of Euros	2013	2014	2015	2016	2017
Present value of defined benefit obligation	440,757	527,028	469,027	521,153	552,021
Fair value of plan assets	172,954	195,326	156,670	183,246	209,774
Deficit (surplus) in the plan	**267,803**	**331,702**	**312,357**	**337,907**	**342,247**
Experience adjustments on plan assets	(31,125)	(10,444)	(3,320)	(16,036)	(5,286)
Experience adjustments on plan liabilities	5,274	(4,543)	5,399	14,861	4,611

Thousands of Euros	2017
EXPECTED CASH FLOWS FOR FOLLOWING YEAR	
Expected employer contributions	30,317
Expected total benefit payments	
Year 1	22,164
Year 2	17,564
Year 3	22,596
Year 4	28,160
Year 5	26,130
Next 5 years	134,424

F28 STOCK OPTION PLANS GRANTED BY THE COMPANY

PLAN	EXPIRY DATE	EXERCISE	EXERCISE PRICE IN EUROS (THE EXERCISE PRICE MAY BE HIGHER IN CERTAIN COUNTRIES)	NUMBER OF OPTIONS STILL TO BE EXERCISED
ISOP 2008	14/04/2018	all working days of Euronext Brussels	16.29	30,000
			16.36	0
				30,000
ISOP 2011	13/02/2018	all working days of Euronext Brussels	19.04	37,500
			19.62	32,000
			19.27	0
				69,500
ISOP 2012	12/02/2019	all working days of Euronext Brussels	17.66	118,324
			18.84	45,500
			18.00	22,000
				185,824
ISOP 2013	12/02/2020	all working days of Euronext Brussels	18.19	402,750
			19.34	60,000
				462,750
ISOP 2014	10/02/2021	all working days of Euronext Brussels	16.14	788,625
			15.80	61,250
			16.49	15,000
				864,875
ISOP 2015	09/02/2022	all working days of Euronext Brussels	17.29	1,111,000
			18.90	54,000
			19.50	52,500
				1,217,500
ISOP 2016	04/02/2023	all working days of Euronext Brussels	16.63	1,217,750
				1,217,750
ISOP 2017	13/02/2024	all working days of Euronext Brussels	25.50	1,122,250
			27.04	47,750
				1,170,000
Total				**5,218,199**

On 16 October 2017, each Umicore share was split into two new shares. The tables of note F28 are restated to reflect the new split in the number of stock options and in the prices.

ISOP refers to “Incentive Stock Option Plan” (worldwide plan for managers).

The stock options, which are typically vested at the time of the grant, are foreseen to be settled with treasury shares. Options which have not been exercised before the expiry date elapse automatically.

	2016 NUMBER OF SHARE OPTIONS	2016 WEIGHTED AVERAGE EXERCISE PRICE	2017 NUMBER OF SHARE OPTIONS	2017 WEIGHTED AVERAGE EXERCISE PRICE
DETAILS OF THE SHARE OPTIONS OUTSTANDING DURING THE YEAR				
Outstanding at the beginning of the year	**6,817,750**	**16.83**	**5,645,750**	**16.84**
Granted during the year	1,217,750	16.63	1,170,000	25.56
Exercised during the year	2,377,750	16.00	1,597,551	17.39
Expired during the year	12,000	0.00	–	0.00
Outstanding at the end of the year	**5,645,750**	**17.16**	**5,218,199**	**18.98**
Exercisable at the end of the year	5,645,750	17.16	5,218,199	18.98

The options outstanding at the end of the year have a weighted average contractual life until March 2022.

The details concerning the calculation of the fair value of the options granted are detailed under note F10 on Payroll and related Benefits.

F29 ENVIRONMENTAL PROVISIONS

Thousands of Euros	PROVISIONS FOR SOIL CLEAN-UP & SITE REHABILITATION	OTHER ENVIRONMENTAL PROVISIONS	TOTAL
At the end of previous year	**58,854**	**2,328**	**61,182**
Acquisition through business combinations	2,471	392	**2,862**
Increase	8,792	2,490	**11,281**
Reversal	(380)	(174)	**(554)**
Use (included in Other operating expenses)	(3,448)	(1,927)	**(5,374)**
Discounting (included in Finance cost – Net)	1,480	–	**1,480**
Translation differences	(1,682)	(2)	**(1,684)**
At the end of the financial year for continuing operations	**66,086**	**3,107**	**69,193**
Of which – Non-current	54,584	1,000	**55,584**
– Current	11,502	2,108	**13,610**

Provisions for environmental legal and constructive obligations are recognised and measured by reference to an estimate of the probability of future cash outflows as well as to historical data based on the facts and circumstances known at the end of the reporting period. The actual liability may differ from the amounts recognised.

Provisions increased overall by € 8.0 million, with additional provisions and acquisitions through business combinations (Ordeg and Eurotungstene) which are higher than the uses and reversals of existing provisions.

The increase in provisions for soil and groundwater remediation is mainly related to new provisions taken in Belgium, the USA and France. Most of the uses of provisions for the period are linked to the realization during the period of site remediation programmes in Brazil, in the USA and in Belgium.

No major movements occurred in 2017 on the provisions that were taken to address the historical radioactive waste material in Belgium (Olen). Further negotiation with all competent authorities to find a sustainable and acceptable storage solution are ongoing, however, at a slow pace.

The movements of the other environmental provisions are mainly related to the need for and adjustment of CO_2 emission rights in Belgium.

Management expects the most significant cash outflows on these projects for non-current elements to take place within five years.

F30 PROVISIONS FOR OTHER LIABILITIES AND CHARGES

Thousands of Euros	PROVISIONS FOR REORGANISATION & RESTRUCTURING	PROVISIONS FOR OTHER LIABILITIES AND CHARGES	TOTAL
At the end of the previous year	**30,868**	**30,049**	**60,913**
Acquisition through business combinations	1,500	11,968	**13,468**
Increase	9,843	23,680	**33,523**
Reversal	(666)	(3,459)	**(4,125)**
Use (included in "Other operating expenses")	(3,406)	(9,582)	**(12,988)**
Translation differences	(261)	(1,509)	**(1,770)**
Transfers	(826)	471	**(356)**
Financial charges	–	(2,249)	**(2,249)**
At the end of the financial year for continuing operations	**37,051**	**49,369**	**86,416**
Of which – Non-current	12,522	19,748	**32,270**
– Current	17,957	36,193	**54,150**

Provisions for reorganisation and restructuring and for tax, warranty and litigation risks, onerous contracts and product returns are recognised and measured by reference to an estimate of the probability of future outflow of cash as well as to historical data based on the facts and circumstances known at the end of the reporting period. The actual liability may differ from the amounts recognised.

Provisions increased overall by € 25.5 million. The acquisitions through business combinations are related to Ordeg (Korea) and Eurotungstene (France).

Additional provisions for reorganisation and restructuring have been taken in Germany, China and in the USA. The new provisions relate mainly to the closure of the production site of Thin Film Products in the USA (Providence).

Uses of provisions for reorganisation and restructuring were taken mainly in Germany and China while some reversal of prior years' booked provisions took place in Germany.

The increases for other liabilities and charges are related mainly to the net increase of the IAS 39 related provisions for € 20.8 million, leaving an IAS 39 closing balance of € 27.2 million for the continuing operations.

The uses of provisions for other liabilities and charges are related to warranty and litigation provisions in Belgium, Korea and Germany.

No assessment is possible regarding the expected timing of cash outflows related to the non-current part of the provisions for other liabilities and charges.

F31 CAPITAL EMPLOYED

Thousands of Euros	NOTE	31/12/2016	30/06/2017	31/12/2017
Intangible assets	F14, F15	305,340	294,253	328,808
Property, plant and equipment	F16	1,070,403	1,159,574	1,301,411
Investments accounted for under the equity method	F17	195,332	126,780	153,008
Available-for-sale financial assets	F18	26,414	18,927	22,331
Inventories	F19	1,188,822	1,329,157	1,628,423
Non-current receivable (excluding assets employee benefits)	F20	10,690	10,577	13,118
Adjusted current accounts receivable		821,361	1,105,210	1,282,173
Income tax receivable		32,517	35,161	36,036
Assets included in capital employed		**3,650,879**	**4,079,638**	**4,765,307**
Non-current trade and other payables	F25	41,656	39,630	40,442
Adjusted current accounts payable		1,154,261	1,316,499	1,622,720
Translation reserves	F23	(7,830)	(76,123)	(87,244)
Non-current provisions	F29, F30	80,410	82,613	87,853
Current provisions	F29, F30	41,690	51,334	67,759
Income tax payable		57,666	62,649	62,830
Liabilities included in capital employed		**1,367,853**	**1,476,601**	**1,794,359**
Capital employed		**2,283,026**	**2,603,037**	**2,970,948**
IAS 39 and eliminations		15,309	23,839	32,596
Capital employed discontinued		99,074	92,497	–
Capital employed as published		**2,397,409**	**2,719,373**	**3,003,544**
Average Capital Employed in half year preceding closing date		2,394,387		2,861,459
Average Capital Employed in year preceding closing date		**2,398,660**		**2,709,925**
Recurring EBIT in year preceding closing date	F9	350,747		410,254
ROCE in year preceding closing date		**14.62%**		**15.14%**

Current account receivable and payable included in "Capital Employed" do no take into account margin calls and gains and losses booked on the mark-to-market value of strategic hedging instruments.

Average capital employed for the half years is calculated as the average of the capital employed at the end of the period and at the end of the preceding period. Average capital employed for the year is calculated as the average of the capital employed of both half years.

F32 FINANCIAL INSTRUMENTS BY CATEGORY

AS AT THE END OF PREVIOUS YEAR

			CARRYING AMOUNT			
Thousands of Euros	LEVEL	FAIR VALUE	HELD FOR TRADING – NO HEDGE ACCOUNTING	CASH FLOW HEDGE ACCOUNTING	LOANS, RECEIVABLES AND PAYABLES	AVAILABLE-FOR-SALE
ASSETS						
Available-for-sale financial assets		**26,414**	**–**	**–**	**–**	**26,414**
Available-for-sale financial assets – Shares	1	26,414	–	–	–	26,414
Loans granted		**15,988**	**–**	**–**	**15,988**	**–**
Loans to associates and non-consolidated affiliates		15,988	–	–	15,988	–
Trade and other receivables		**855,385**	**15,959**	**21,347**	**818,079**	**–**
Non-current						
Cash guarantees and deposits		9,532	–	–	9,532	–
Other receivables maturing in more than 1 year		1,158	–	–	1,158	–
Assets employee benefits		424	–	–	424	–
Current						
Trade receivables (at cost)		706,656	–	–	706,656	–
Trade receivables (write-down)		(9,279)	–	–	(9,279)	–
Other receivables (at cost)		78,778	–	–	78,778	–
Other receivables (write-down)		(6,893)	–	–	(6,893)	–
Interest receivable	2	244	–	–	244	–
Fair value of financial instruments held for cash flow hedging	2	21,347	–	21,347	–	–
Fair value receivable other financial instruments		15,959	15,959	–	–	–
Deferred charges and accrued income		37,458	–	–	37,458	–
Cash and cash equivalents		**84,460**	**–**	**–**	**84,460**	**–**
Short-term investments: bank term deposits		10,521	–	–	10,521	–
Short-term investments: term deposits (other)		25	–	–	25	–
Cash-in-hand and bank current accounts		73,914	–	–	73,914	–
TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)		**982,247**	**15,959**	**21,347**	**918,527**	**26,414**
LIABILITIES						
Financial debt		**426,282**	**–**	**–**	**425,182**	**–**
Non-current						
Bank loans		21,100	–	–	20,000	–
Other loans		4,396	–	–	4,396	–
Current						
Short-term bank loans		117,205	–	–	117,205	–
Bank overdrafts		13,185	–	–	13,185	–
Short-term loan: commercial paper		268,607	–	–	268,607	–
Other loans		1,790	–	–	1,790	–
Trade and other payables		**1,203,027**	**11,725**	**7,118**	**1,184,184**	**–**
Non-current						
Long-term trade payables		25,132	–	–	25,132	–
Other long-term debts		3,988	–	–	3,988	–
Investments grants and deferred income from grants		12,536	–	–	12,536	–
Current						
Trade payables		843,498	–	–	843,498	–

AS AT THE END OF PREVIOUS YEAR

Thousands of Euros	LEVEL	FAIR VALUE	CARRYING AMOUNT HELD FOR TRADING – NO HEDGE ACCOUNTING	CASH FLOW HEDGE ACCOUNTING	LOANS, RECEIVABLES AND PAYABLES	AVAILABLE-FOR-SALE
Advances received on contracts in progress		21,023	–	–	21,023	–
Tax – other than income tax – payable		26,696	–	–	26,696	–
Payroll and related charges		95,780	–	–	95,780	–
Other amounts payable		17,635	–	–	17,635	–
Dividends payable		11,687	–	–	11,687	–
Accrued interest payable		584	–	–	584	–
Fair value financial instrument held for cash flow hedging	2	7,118	–	7,118	–	–
Fair value payable other financial instruments	2	11,725	11,725	–	–	–
Accrued charges and deferred income		125,625	–	–	125,625	–
TOTAL OF FINANCIAL INSTRUMENTS (LIABILITIES)		**1,629,309**	**11,725**	**7,118**	**1,609,366**	**–**

AS AT THE END OF THE FINANCIAL YEAR

Thousands of Euros	LEVEL	FAIR VALUE	CARRYING AMOUNT HELD FOR TRADING – NO HEDGE ACCOUNTING	CASH FLOW HEDGE ACCOUNTING	LOANS, RECEIVABLES AND PAYABLES	AVAILABLE-FOR-SALE
ASSETS						
Available-for-sale financial assets		**22,331**	**–**	**–**	**–**	**22,331**
Available-for-sale financial assets – Shares	1	22,331	–	–	–	22,331
Loans granted		**13,035**	**–**	**–**	**13,035**	**–**
Loans to associates and non-consolidated affiliates		13,035	–	–	13,035	–
Trade and other receivables		**1,349,805**	**11,169**	**46,628**	**1,292,009**	**–**
Non-current						
Cash guarantees and deposits		12,068	–	–	12,068	–
Other receivables maturing in more than 1 year		1,048	–	–	1,048	–
Assets employee benefits		1,029	–	–	1,029	–
Current						
Trade receivables (at cost)		1,075,389	–	–	1,075,389	–
Trade receivables (write-down)		(7,509)	–	–	(7,509)	–
Other receivables (at cost)		145,519	–	–	145,519	–
Other receivables (write-down)		(4,513)	–	–	(4,513)	–
Interest receivable	2	273	–	–	273	–
Fair value of financial instruments held for cash flow hedging	2	46,628	–	46,628	–	–
Fair value receivable other financial instruments		11,169	11,169	–	–	–
Deferred charges and accrued income		68,705	–	–	68,705	–
Cash and cash equivalents		**168,115**	**–**	**–**	**168,115**	**–**
Short-term investments: bank term deposits		16,948	–	–	16,948	–
Short-term investments: term deposits (other)		41	–	–	41	–
Cash-in-hand and bank current accounts		151,126	–	–	151,126	–
TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)		**1,553,286**	**11,169**	**46,628**	**1,473,159**	**22,331**

AS AT THE END OF THE FINANCIAL YEAR			CARRYING AMOUNT			
Thousands of Euros	LEVEL	FAIR VALUE	HELD FOR TRADING – NO HEDGE ACCOUNTING	CASH FLOW HEDGE ACCOUNTING	LOANS, RECEIVABLES AND PAYABLES	AVAILABLE-FOR-SALE
LIABILITIES						
Financial debt		**1,004,013**	**–**	**–**	**1,007,974**	**–**
Non-current						
Bank loans		686,000	–	–	690,000	–
Other loans		4,106	–	–	4,106	–
Current						
Short-term bank loans		225,044	–	–	225,004	–
Bank overdrafts		12,218	–	–	12,218	–
Short-term loan: commercial paper		76,498	–	–	76,498	–
Other loans		148	–	–	148	–
Trade and other payables		**1,680,256**	**12,035**	**17,122**	**1,651,099**	**–**
Non-current						
Long-term trade payables		26,205	–	–	26,205	–
Other long-term debts		3,681	–	–	3,681	–
Investments grants and deferred income from grants		10,555	–	–	10,555	–
Current						
Trade payables		1,209,684	–	–	1,209,684	–
Advances received on contracts in progress		31,947	–	–	31,947	–
Tax – other than income tax – payable		27,742	–	–	27,742	–
Payroll and related charges		122,250	–	–	122,250	–
Other amounts payable		44,244	–	–	44,244	–
Dividends payable		11,696	–	–	11,696	–
Accrued interest payable		5,355	–	–	5,355	–
Fair value financial instrument held for cash flow hedging	2	17,122	–	17,122	–	–
Fair value payable other financial instruments	2	12,035	12,035	–	–	–
Accrued charges and deferred income		157,740	–	–	157,740	–
Total of financial instruments (Liabilities)		**2,684,269**	**12,035**	**17,122**	**2,659,073**	**–**

Loans and debt have been issued at market rates which would not create any major differences with effective interest expenses. All categories of financial instruments of Umicore are at fair value except the non-current bank and other loans for which the carrying amounts differ from the fair value (see note F24).

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period.

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques, mainly discounted cash flow, using market assumptions prevailing at the end of the reporting period.

In particular, the fair value of interest rate swaps is calculated as the present value of the estimated future cash flows. The fair value of forward foreign exchange, metal and energy contracts is determined using quoted forward exchange, metal and energy rates at the end of the reporting period.

The fair value of quoted financial assets held by the Group is their quoted market price at the end of the reporting period. The fair value of financial liabilities is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments.

The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair values.

32.1 FAIR VALUE HIERARCHY

The Group adopted the amendment to IFRS 7 for financial instruments which are measured in the balance sheet at fair value, with effect from January 2009. This amendment requires disclosures of fair value measurements by level, based on the following fair value measurement hierarchy:

- Level 1: fair value based on quoted prices in active markets for identical assets or liabilities.
- Level 2: fair value based on inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly.
- Level 3: fair value for the asset or liability valuation are based on unobservable inputs.

In the Group, the fair values on available-for-sale financial assets are measured as level 1. All the metal, energy and foreign currency derivatives are measured as level 2.

32.2 SENSITIVITY ANALYSIS ON FINANCIAL INSTRUMENTS

Umicore is sensitive to commodity prices, foreign currency and interest rate risk on its financial instruments.

32.2.1 COMMODITY PRICES

The fair value on financial instruments related to cash flow hedging sales would have been € 7.1 million lower/higher if the metal prices would strengthen/weaken by 10%.

The fair value on financial instruments related to cash flow hedging purchases would have been € 3.3 million higher/lower if the energy prices would strengthen/weaken by 10%. The fair value on financial instruments related to cash flow hedging purchases would have been € 11.8 million higher/lower if the metal prices would strengthen/weaken by 10%.

The fair value on other commodity sales financial instruments would have been € 14.8 million lower/higher and the fair value on other commodity purchases financial instruments would have been € 13.5 million higher/lower if the metal prices would strengthen/weaken by 10%.

32.2.2 FOREIGN CURRENCY

The fair value of forward currency contracts related to cash flow hedging would have been € 5.3 million higher if the Euro would strengthen against US dollar by 10% and would have been € 6.5 million lower if the Euro would weaken against US dollar by 10%. The fair value of forward currency contracts related to cash flow hedging would have been € 0.9 million lower if the Euro would strengthen against ZAR by 10% and would have been € 1.1 million higher if the Euro would weaken against South African rand (ZAR) by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 11.2 million lower if the US dollar would strengthen against KRW by 10% and would have been € 12.9 million higher if the US dollar would weaken against Korean won (KRW) by 10%.

The fair value of other forward currency contracts sold would have been € 44.7 million higher if the Euro would strengthen against US dollar by 10% and would have € 54.6 million lower if the Euro would weaken against US dollar by 10%.

The fair value of other forward currency contracts bought would have been € 19.2 million lower if the Euro would strengthen against US dollar by 10% and would have been € 23.5 million higher if the Euro would weaken against US dollar by 10%.

The fair value of net position of current assets and liabilities exposed to US dollar would have been € 36.2 million lower if the Euro would strengthen against US dollar by 10% and would have been € 44.3 million higher if the Euro would weaken against US dollar by 10%.

F33 FAIR VALUE OF FINANCIAL INSTRUMENTS

Umicore hedges its structural and transactional commodity (metal and energy), currency and interest rate risks using respectively commodity derivatives (mainly quoted on the London Metal Exchange), currency derivatives and Interest Rate Swaps with reputable brokers and banks.

33.1 FINANCIAL INSTRUMENTS RELATED TO CASH FLOW HEDGING

	NOTIONAL OR CONTRACTUAL AMOUNT		FAIR VALUE	
Thousands of Euros	31/12/2016	31/12/2017	31/12/2016	31/12/2017
Forward commodities sales	78,820	59,314	4,558	(10,571)
Forward commodities purchases	(52,408)	(135,996)	9,051	21,027
Forward currency contracts sales	352,559	431,038	3,169	21,013
Forward currency contracts purchases	-	(103,090)	-	(1,337)
Forward IRS contracts	-	-	(2,550)	(625)
Total fair value impact subsidiaries			**14,228**	**29,505**
Recognised under trade and other receivables			21,347	46,628
Recognised under trade and other payables			(7,119)	(17,122)
Total			**14,228**	**29,505**

The principles and documentation on the hedged risks as well as the timing related to the Group's cash flow hedging operations are included in note F3 Financial risk management.

The fair values of the effective hedging instruments are in the first instance recognised in the fair value reserves recorded in equity and are derecognised when the underlying forecasted or committed transactions occur (see note F23).

The forward commodities sales contracts are set up to hedge primarily the following commodities: gold, silver, palladium, nickel, lead and copper. The forward commodity purchase contracts are set up to hedge primarily the electricity, gas and fuel oil price risks.

The forward currency contracts are set up to hedge US Dollar towards Euro, Korean won (KRW), Brazilian real (BRL), Canadian dollar (CAD) and South African rand (ZAR) and Euro towards South African rand (ZAR).

The terms and conditions of the forward contracts are common market conditions.

In those circumstances whereby the hedge accounting documentation as defined under IAS 39 is not available, financial instruments used to hedge structural risks for metals and currencies are measured as if they were held for trading. However, such instruments are being used to hedge future probable cash flows and are not speculative in nature.

Umicore has not faced any ineffectiveness on cash flow hedging in P&L in 2016 and 2017.

33.2 OTHER FINANCIAL INSTRUMENTS

	NOTIONAL OR CONTRACTUAL AMOUNT		FAIR VALUE	
Thousands of Euros	31/12/2016	31/12/2017	31/12/2016	31/12/2017
Forward commodities sales	174,163	140,686	4,451	(7,030)
Forward commodities purchases	(147,073)	(131,626)	(1,414)	3,714
Forward currency contracts sales	697,010	629,862	(5,109)	6,364
Forward currency contracts purchases	(274,284)	(254,281)	6,304	(3,915)
Total fair value impact subsidiaries			**4,233**	**(867)**
Recognised under trade and other receivables			15,959	11,169
Recognised under trade and other payables			(11,725)	(12,035)
Total			**4,233**	**(867)**

The principles and documentation related to the Group's transactional hedging are included in note F3 "Financial risk management". In the absence of hedge accounting documentation as defined under IAS 39, financial instruments used to hedge transactional risks for metals and currencies are measured as if they were held for trading. However, such instruments are being used to cover existing transactions and firm commitments and are not speculative in nature.

The fair values are immediately recognised in the income statement under Other operating income for the commodity instruments and the Net Finance cost for the currency instruments.

AS AT THE END OF PREVIOUS YEAR

Thousands of Euros	EARLIEST CONTRACTUAL MATURITY (UNDISCOUNTED) < 1 MONTH	1 TO 3 MONTHS	3 MONTHS – 1 YEAR	1 TO 5 YEARS	TOTAL
FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)					
Commodity risk					
Total forward sales (CFH)	39	751	2,215	1,553	**4,558**
Total forward purchases (CFH)	272	544	2,450	5,785	**9,051**
Total forward sales (other)	664	4,592	1,198	–	**6,454**
Total forward purchases (other)	946	(150)	617	155	**1,567**
FX Risk					
Forward currency contracts sales (CFH)	321	887	3,992	2,537	**7,737**
Forward currency contracts sales (other)	1,304	69	115	–	**1,488**
Forward currency contracts purchases (other)	1,361	2,031	3,042	15	**6,449**
FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)					
Interest Rate Risk					
Interest rate swaps	–	–	–	(2,550)	**(2,550)**
Commodity risk					
Total forward sales (other)	(1,244)	(775)	17	–	**(2,002)**
Total forward purchases (other)	(770)	(1,835)	(270)	(106)	**(2,981)**
FX Risk					
Forward currency contracts sales (CFH)	(316)	(651)	(2,627)	(974)	**(4,569)**
Forward currency contracts sales (other)	631	(3,546)	(3,051)	(630)	**(6,597)**
Forward currency contracts purchases (other)	(146)	1	–	–	**(145)**

AS AT THE END OF THE FINANCIAL YEAR

Thousands of Euros	EARLIEST CONTRACTUAL MATURITY (UNDISCOUNTED) < 1 MONTH	1 TO 3 MONTHS	3 MONTHS – 1 YEAR	1 TO 5 YEARS	TOTAL
FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)					
Commodity risk					
Total forward sales (CFH)	–	98	295	–	**393**
Total forward purchases (CFH)	534	1,073	7,313	12,107	**21,027**
Total forward purchases (other)	578	2,751	401	–	**3,730**
FX Risk					
Forward currency contracts sales (CFH)	1,807	3,630	19,181	590	**25,208**
Forward currency contracts sales (other)	4,890	1,506	1,019	–	**7,415**
Forward currency contracts purchases (other)	23	0	–	–	**23**
FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)					
Interest Rate Risk					
Interest rate swaps	–	–	–	(626)	**(626)**
Commodity risk					
Total forward sales (CFH)	(359)	(1,839)	(6,028)	(2,738)	**(10,964)**
Total forward sales (other)	(1,883)	(4,386)	(761)	–	**(7,030)**
Total forward purchases (other)	(88)	71	–	–	**(16)**
FX Risk					
Forward currency contracts sales (CFH)	(276)	(508)	(2,079)	(1,332)	**(4,195)**
Forward currency contracts purchases (CFH)	(6)	(6)	(137)	(1,187)	**(1,337)**
Forward currency contracts sales (other)	(362)	(678)	(11)	–	**(1,051)**
Forward currency contracts purchases (other)	(823)	(2,446)	(669)	–	**(3,939)**

F34 NOTES TO THE CASH FLOW STATEMENT

34.1 DEFINITIONS

The cash flow statement identifies operating, investing and financing activities for the period. Umicore uses the indirect method for the operating cash flows. The net profit and loss is adjusted for:

- the effects of non-cash transactions such as provisions, impairment losses, mark to market, etc., and the variance in operating capital requirements.
- items of income or expense associated with investing or financing cash flows.

Thousands of Euros	2016	2017
Adjustments for non-cash transactions		
Depreciations	175,944	190,494
Adjustment IAS 39	(5,403)	21,048
Negative goodwill taken in result	–	(10,900)
(Reversal) Impairment charges	22,899	11,779
Mark to market of inventories and commitments	(20,435)	(37,465)
Exchange difference on long-term loans	1,297	(3,602)
Inventories and bad debt provisions	(880)	8,488
Depreciation on government grants	(726)	(671)
Share-based payments	3,548	6,129
Change in provisions	12,669	5,417
Total	**188,912**	**190,714**
ADJUSTMENTS FOR ITEMS TO DISCLOSE SEPARATELY OR UNDER INVESTING AND FINANCING CASH FLOWS		
Tax charge of the period	56,420	74,670
Interest (income) charges	6,356	19,483
(Gain) loss on disposal of fixed assets	3,999	5,504
Dividend income	(45)	(1,380)
Total	**66,731**	**98,274**
CHANGE IN WORKING CAPITAL REQUIREMENT ANALYSIS		
Inventories	(135,153)	(439,601)
Trade and other receivables	(7,244)	(497,337)
Trade and other payables	85,783	482,394
As in the consolidated balance sheet	**(56,614)**	**(454,544)**
Non-cash items (*)	59,724	47,791
Items disclosed elsewhere (**)	(7,228)	(4,489)
Impact of business combination	–	195,485
Currency translation differences	17,370	(59,754)
As in the consolidated cash flow statement	**13,253**	**(275,509)**

(*) Non cash items are mainly linked to mark to market of inventories and commitments, strategic and transactional hedging and inventories, impairments in inventories and bad debt provisions.
(**) Item disclosed elsewhere are mainly due to changes in interest, dividend and tax receivable and payable and government grants.

Thousands of Euros	NET CASH AND CASH EQUIVALENT	LOANS (W/O BANK OVERDRAFTS)	NET FINANCIAL DEBT
At the end of previous year	**71,275**	**411,996**	**340,721**
Cash flow of the period	68,399	583,758	515,359
Impact of final financing carved out entities	16,223	–	(16,223)
At the end of the financial year	**155,897**	**995,754**	**839,857**
Net debt, including the discontinued	155,897	995,754	839,857

34.2 NET CASH FLOW GENERATED BY OPERATING ACTIVITIES

Operating cash flow after tax from continuing operations is € 153.3 million. Working capital requirements for continuing operations increased by € 275.5 million, in line with higher activity levels and metal prices.

34.3 NET CASH FLOW USED IN INVESTING ACTIVITIES

Net cash used in investing activities for continuing operations increased by € 288.0 million in 2017. Capital expenditure for continuing operations reached € 361.9 million if capitalised R&D costs are excluded as per Umicore's definition of capital expenditures (refer to Glossary). Most of the capital expenditure is related to Umicore's growth investments in clean mobility and recycling. The Energy & Surface Technologies business group accounted for over 60 % of this amount, reflecting in particular the ongoing investment programmes to increase production capacity in cathode materials.

Acquisitions accounted for a cash out of € 211.5 million and include the acquisition of the remaining 50% stake in Ordeg and of the stationary emission control and heavy duty diesel catalyst business of Haldor Topsoe in the Automotive Catalyst business unit as well as the acquisition of Eurotungstene in the Cobalt & Specialty Materials business unit (see note F8). This cash out was only partly offset by divestment proceeds of Building Products (for € 67.7 million as per note F42) and Umicore Vital Thin Film Product Technologies (€ 6.5 million, net of cash).

In 2016, the line "internal transfer" of the net cash flow generated by investing activities reflected the fact that the financing granted by Umicore to the business unit Zinc Chemicals was no longer due after the divestment was completed. The financing was reimbursed as part of the consideration paid.

34.4 NET CASH FLOW USED IN FINANCING ACTIVITIES

The cash used in financing activities is mainly the consequence of the net increase of indebtedness (€ 562.1 million), the use of own shares to cover the exercise of options (€ 6.0 million), and the payment of dividends (€ 156.3 million) and of interest (€ 14.4 million).

Thousands of Euros	2016	2017
Acquisition of tangible assets	207,297	351,249
Acquisition of intangible assets	80,764	25,621
Acquisitions of assets	**288,061**	**376,870**
Capitalised R&D	15,228	14,926
Capital expenditure for continuing operations	**272,833**	**361,944**
Acquisitions of assets for discontinued operations	14,505	3,305
Capital expenditure, including discontinued	**287,338**	**365,250**

F35 RIGHTS AND COMMITMENTS

Thousands of Euros	2016	2017
Guarantees constituted by third parties on behalf of the Group	61,099	57,329
Guarantees constituted by the Group on behalf of third parties	4,178	937
Guarantees received	84,728	109,735
Goods and titles held by third parties in their own names but at the Group's risk	366,623	383,582
Commitments to acquire and sell fixed assets	4,815	3,754
Commercial commitments for commodities purchased (to be received)	425,066	574,203
Commercial commitments for commodities sold (to be delivered)	749,699	1,082,347
Goods and titles of third parties held by the Group	1,794,320	1,902,691
Miscellaneous rights and commitments	2,532	2,522
Total	**3,493,060**	**4,117,100**

35.1 GUARANTEES CONSTITUTED BY THIRD PARTIES ON BEHALF OF THE GROUP

are secured and unsecured guarantees given by third parties to the creditors of the group guaranteeing that the Group's debts and commitments, actual and potential, will be satisfactorily discharged.

35.2 GUARANTEES CONSTITUTED BY THE GROUP ON BEHALF OF THIRD PARTIES
are guarantees or irrevocable undertakings given by the Group in favour of third parties guaranteeing the satisfactory discharge of debts or of existing or potential commitments by the third party to its creditors.

There are no loan commitments given to third parties.

35.3 GUARANTEES RECEIVED
are pledges and guarantees received guaranteeing the satisfactory discharge of debts and existing and potential commitments of third parties towards the Group, with the exception of guarantees and security in cash.

The guarantees received are mainly related to supplier guarantees backed by bank institutions. Those guarantees are set up to cover the good execution of work by the supplier. Some guarantees received are related to customer guarantees, received mainly from a customer's mother company on behalf of one of its subsidiaries. A minor part of the received guarantees is related to rent guarantees.

All guarantees are taken at normal market conditions and their fair value is equivalent to the carrying amount. No re-pledge has been done on any of those guarantees.

35.4 GOODS AND TITLES HELD BY THIRD PARTIES IN THEIR OWN NAMES BUT AT THE GROUP'S RISK
represent goods and titles included in the Group balance sheet for which the Group bears the risk and takes the profit, but where these goods and titles are not present on the premises of the Group . It concerns mainly inventories leased out to third parties or held under consignment or under tolling agreement by third parties.

35.5 COMMERCIAL COMMITMENTS
are firm commitments to deliver or receive metals to customers or from suppliers at fixed prices.

35.6 GOODS AND TITLES OF THIRD PARTIES HELD BY THE GROUP
are goods and titles held by the group, but which are not owned by the Group. It concerns mainly third party inventories leased in or held under consignment or tolling agreements with third parties.

The Group leases metals (particularly gold and silver) from and to banks and other third parties for specified, mostly short term, periods and for which the group pays or receives fees. As at 31 December 2017, there was a net lease-in position of € 715 million vs. € 675 million at end of 2016. This increase is mainly caused by higher volumes and higher metal prices.

F36 CONTINGENCIES
The Group is the subject of a number of claims and legal proceedings incidental to the normal conduct of its business. Management does not believe that such claims and proceedings are likely to have a material adverse effect on the financial condition of Umicore.

F37 RELATED PARTIES

Thousands of Euros	2016	2017
TRANSACTIONS WITH JOINT VENTURES AND ASSOCIATES		
Operating income	108,523	208,385
Operating expenses	(91,187)	(223,437)
Financial income	81	213
Financial expenses	(1)	–
Dividends received	(8,723)	(12,331)

Thousands of Euros	2016	2017
OUTSTANDING BALANCES WITH JOINT VENTURES AND ASSOCIATES		
Current trade and other receivables	25,480	43,090
Current trade and other payables	35,152	67,394
Loan asset short term	2,450	1,538

The transactions with associates and joint ventures are mainly commercial transactions, sales and purchases of goods and services.

There are no transaction with entities held by key management personnel.

Thousands of Euros	2016	2017
BOARD OF DIRECTORS		
Salaries and other compensation	**685,303**	**910,256**
Fixed portion	227,322	289,433
Variable portion (based on attended meetings)	218,000	275,000
Value of the share grant	232,606	322,456
Benefit in kind company car chairman	2,971	2,767
Umicore contribution to the Swiss social security	4,404	20,600

No variable or other compensation element (apart from attendance-related fees) is associated with directorship. No loan or guarantees have been granted by the company to members of the board.

Thousands of Euros	2016	2017
EXECUTIVE COMMITTEE		
Salaries and other benefits	**7,557,111**	**9,466,215**
Short-term employee benefits	3,352,140	4,312,306
Post-employment benefits	1,299,414	1,202,590
Other long-term benefits	968,760	983,562
Share-based payments	1,936,797	2,967,757

The data above shows the accounting view of the board and executive committee remuneration and differs somewhat from the information provided in the remuneration report in the corporate governance section.

In the tables above, the employer social security contributions, if applicable, are included in the short-term employee benefits. These do not feature in the remuneration report .

With regards to share-based incentives the share grant figures included in share-based payments above represent the value of the shares granted in 2017 for services rendered in 2016. The remuneration report shows the value of the shares granted in 2018 or services rendered in the reporting year i.e. 2017.

The figures related to the undeferred part of the variable cash remuneration linked to the individual performance for the reference year 2017, included in short-term employee benefits, represent the level of accruals at the end of reporting period. The remuneration report features the actual amounts paid.

Accruals booked for the deferred parts of the variable cash remuneration for the reference year 2017 are included in the other long-term benefits. The amounts to be paid in 2019 and 2020 will depend on long-term performance measures and the exact amounts paid will be included in the remuneration reports for the years in question.

F38 EVENTS AFTER THE REPORTING PERIOD

Following the board of directors meeting of 8 February 2018, Umicore announced that a gross dividend of € 0.70 per share would be proposed to the annual general meeting (of which € 0.325 per share were already paid out as interim dividend in August 2017).

On 8 February 2018, Umicore placed 22,400,000 new shares with institutional and other investors through an accelerated bookbuild conducted under private placement exemptions. The new shares represented 10% of the number of outstanding shares prior the transaction (224,000,00). On 12 February 2018, the new shares were admitted to trading on Euronext Brussels and as from that day, the total number of shares outstanding amount to 246,400,000. The proceeds of the accelerated bookbuild (€ 892 million) will be used to fund Umicore's growth investments and will provide Umicore with more flexibility to pursue potential acquisitions and partnership. The new shares from the capital increase will be entitled to a dividend payment of € 0.375 corresponding to the balance of the gross annual dividend for 2017, subject to shareholders' approval of a full year dividend of € 0.70 per share.

Umicore announced at the end of November 2017 that it has agreed to sell its European Technical Materials business to SAXONIA Edelmetalle GmbH, a long-established German refiner and manufacturer of precious metal chemical compounds, semi-finished products and contact parts. The agreement concerns the Technical Materials activities in Germany and Italy, which manufacture contact materials and brazing alloys for technical applications. Closing of the transaction took place at the end of January 2018.

Umicore announced in December 2017 that it has reached an agreement to acquire Materia´s metathesis catalyst IP and business portfolio for a price of USD 27 million. Materia is a leading US-based producer of metathesis catalysts and thermoset resins. Its metathesis business is a technology leader in homogeneous catalysts with unique proprietary technology developed by 2005 Chemistry Nobel Prize laureate Prof. Robert H. Grubbs and others and a broad portfolio of customised metathesis catalysts.

The transaction was subject to closing conditions and has been finalised in the course of January 2018.

F39 EARNINGS PER SHARE

Euros	2016	2017
Excluding discontinued operations		
EPS – basic	0.83	0.98
EPS – diluted	0.825	0.97
Including discontinued operations		
EPS – basic	0.6	0.97
EPS – diluted	0.595	0.96
Recurring EPS	**1.07**	**1.22**

The following earnings figures have been used as the numerator in the calculation of basic and diluted earnings per share:

NUMERATOR ELEMENTS

Thousands of Euros	NOTE	2016	2017
Net consolidated profit, Group share	F9		
Without discontinued operations		181,203	214,836
With discontinued operations		130,724	211,943
Recurring net consolidated profit, Group share	F9	**232,855**	**266,771**

The following numbers of shares have been used as the denominator in the calculation of basic and diluted earnings per share:

DENOMINATOR ELEMENTS

	2016	2017
Total shares issued as at 31 December	**224,000,000**	**224,000,000**
of which treasury shares	5,346,300	4,505,567
of which shares outstanding	218,653,700	219,494,433
Weighted average number of outstanding shares	**217,775,656**	**219,079,587**
Potential dilution due to stock option plans	1,594,664	2,069,303
Adjusted weighted average number of outstanding shares	219,370,320	221,148,890

Total outstanding shares are after deduction of treasury shares, which are held to cover existing stock option plans or are available for resale. The denominator for the calculation of diluted earnings per share takes into account an adjustment for stock options.

On 16 October 2017, each Umicore share was split into two new shares. As a result, at the end of December, Umicore's capital is represented by 224,000,00 fully paid-up shares without nominal value.

During 2017, no new shares were created as a result of the exercise of stock options with linked subscriptions rights. During the year Umicore used 1,597,551 of its treasury shares in the context of the exercise of stock and 71,912 for shares granted. In the course of 2017. Umicore bought back 828,730 own shares. On 31 December 2017, Umicore owned 4,505,567 of its own shares representing 2.01 % of the total number of shares issued as at that date.

F40 IFRS DEVELOPMENTS

The following **new standards and amendments** to standards have been issued, but are **not mandatory** for the first time for the financial year beginning 1 January 2017 and have **been endorsed by the European Union**:

- **IFRS 9** "Financial instruments", effective for annual periods beginning on or after 1 January 2018. The standard addresses the classification, measurement, derecognition of financial assets and financial liabilities and general hedge accounting.

  Based on the results of a detailed analysis during the second semester of 2017, there is a likelihood that the "IAS 39 correction" may be reduced materially due to the fact that IFRS 9 allows more flexible hedge accounting on metals and currencies. The exact impact per activity is currently being reviewed. In respect of physical commitments and inventories, provisions will have to be considered for any unbalanced positions and uncertainties within any physical commitments. The analysis on the expected adjustments due to an expected credit loss model is still ongoing.

- **IFRS 15** "Revenue from contracts with customers". The standard will improve comparability of the top line in financial statements globally. Companies using IFRS will be required to apply the revenue standard for annual periods beginning on or after 1 January 2018.

  The revenue streams and triggers for revenue recognition have been analysed for all business units during 2017 to ensure alignment with the 5-step model under IFRS 15. Based on the detailed analysis, it can be concluded that there are no material inconsistencies expected between the current revenue recognition model applied and the revenue recognition triggers under IFRS 15.

The following **new standards, amendments and interpretation** to standards have been issued, but are **not mandatory** for the first time for the financial year beginning 1 January 2017 and have **not been endorsed by the European Union**:

- **IFRS 16** "Leases". This standard replaces the current guidance in IAS 17 and is a far reaching change in accounting by lessees in particular. Under IAS 17, lessees were required to make a distinction between a finance lease (on balance sheet) and an operating lease (off balance sheet). IFRS 16 requires lessees to recognise a lease liability reflecting future lease payments and a "right-of-use asset" for virtually all lease contracts. For lessors, the accounting stays almost the same. However, as the IASB has updated the guidance on the definition of a lease (as well as the guidance on the combination and separation of contracts), lessors will also be affected by the new standard. Under IFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

  A project has been launched during 2017 in which the preparation phase, consisting of capturing all contracts and necessary information for IFRS 16 has been kicked off. During 2018, group management in close collaboration with local management, will further evaluate and assess the impact applying the criteria under IFRS 16. IFRS 16 contains a scope exception for leases to explore for or use minerals, oil, natural gas and similar non-regenerative resources. Consequently, Umicore's metal leases will stay out-of-scope of the leasing standard. Umicore has no other significant lease contracts and therefore the impact of the implementation of IFRS 16 is expected to be limited.

- **IFRIC 23** "Uncertainty over income tax treatments" (effective 1 January 2019). This interpretation clarifies the accounting for uncertainties in income taxes. The interpretation is to be applied to the determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12. Umicore is analysing the tax uncertainties within the group and the impact that this clarification may have.

For all other new interpretations and standards not yet mandatory as from 1 January 2017, management has no indications that this will result in a material impact on the Group's consolidated financial statements.

F41 AUDITORS' REMUNERATION

The world-wide remuneration for the statutory auditor and its affiliated companies totalled € 4.0 million, including an amount of € 1.8 million for the statutory audit missions (€ 0.5 million for the audit of the mother company) and € 2.2 million for non-statutory audit services including audit-related and other attestation services (€ 0.4 million) and other non-audit related services (€ 1.8 million).

F42 DISCONTINUED OPERATIONS

In 2015, in light of Umicore's review of its portfolio of activities, a process was initiated to prepare the Zinc Chemicals and Building Products business units for a future outside the Umicore Group. Management analysed whether criteria were met to present both activities as discontinued operations. Based on this analysis it was decided to present both business units as discontinued operations as from 30 June 2015.

As a result,since 2015, discontinued operations were shown in one line item on the balance sheet in accordance with IFRS 5 and with elimination of balance sheet positions between the continued and discontinued operations. No deprecations have been recorded for discontinued operations as from 30 June 2015 but all discontinued balance sheet items were presented at the lower of the fair value less cost-to-sell and the carrying amount, in accordance with IFRS 5 and based upon a detailed impairment analysis.

In June 2016, Umicore announced that an agreement to sell its Zinc Chemicals business unit to OpenGate Capital, a US-based private equity firm, had been reached. The transaction has been effectively closed at the end of October 2016. All the income statement elements of Zinc Chemicals before the end of October have been shown under discontinued operations.

In May 2017, it was announced that Umicore entered into exclusive negotiations with Fedrus International for the sale of its Building Products activities. The transaction has been effectively closed at the end of September 2017. All the income statements elements of Building Products before the end of September have been shown under discontinued operations.

As per 1st July 2017, the activities of Ieqsa have been transferred again to the continuing operations in the Corporate segment.

ASSETS AND LIABILITIES OF DISCONTINUED OPERATIONS

Thousands of Euros	31/12/2016	31/12/2017
Non-current assets	**90,344**	**–**
Property, plant and equipment	62,137	–
Investments accounted for using the equity method	15,981	–
Other non-current assets	12,226	–
Current assets	**163,140**	**–**
Inventories	92,531	–
Trade and other receivables	23,931	–
Cash and Cash equivalents	45,326	–
Other current assets	1,352	–
TOTAL ASSETS	**253,484**	**–**
Non-current liabilities	**39,768**	**–**
Provisions for employee benefits	36,896	–
Financial debt	487	–
Other non-current liabilities	2,385	–
Current liabilities	**105,140**	**–**
Financial debt	371	–
Trade and other payables	103,478	–
Other current liabilities	1,291	–
TOTAL EQUITY & LIABILITIES	**144,908**	**–**

Analysis of the result of discontinued operations and cash flows including a restatement of prior periods in accordance with IFRS 5 is shown below:

CONDENSED INCOME STATEMENT OF DISCONTINUED OPERATIONS

Thousands of Euros	2016	2017
Operating income	661,311	334,291
Operating expenses	(696,754)	(333,507)
Result from operating activities	**(35,445)**	**783**
Finance cost – Net	(3,031)	(1,023)
Share in result of companies using the equity method	1,254	859
Profit (loss) before income tax	**(37,222)**	**619**
Income taxes	(13,081)	(3,512)
Profit (loss) of the period	**(50,303)**	**(2,893)**
Euros		
Basic earnings per share from discontinued operations	(0.23)	(0.01)
Diluted earnings per share from discontinued operations	(0.23)	(0.01)

CONDENSED CASH FLOW STATEMENT OF DISCONTINUED OPERATIONS

Thousands of Euros	2016	2017
Net operating cash flow	**(63,363)**	**6,800**
Net cash flow generated by (used in) investing activities	**28,909**	**(42,710)**
Net cash flow generated by (used in) financing activities	**(22,579)**	**7,031**
Effect of exchange rate fluctuations on cash held	(3,002)	(224)
Net cash flow from discontinued operations	(60,034)	(29,103)
Net cash and cash equivalents at the beginning of the period for discontinued operations	**37,872**	**45,326**
Impact of final financing carved out entities	67,488	(16,223)
Net cash and cash equivalents at the end of the period for discontinued operations	**45,326**	**–**

Referring to the accounting policies, the Group has made a policy choice of assessing whether the arrangement will continue in the future and as a result, intercompany transactions within the income statement between the discontinued and continued operations are not eliminated against continuing operation to the extent that the arrangement will continue in the future and the amounts will become external revenues/expenses in subsequent periods.

The commercial transactions between continued and discontinued operations amounted to € 5.2 million in the operating expenses of the discontinued operations and € 0.8 million in the operating income of the discontinued operations (taking 9 months of results for discontinued operations).

The balance sheet of the Building Products entities at the end of September on which the capital gain calculation has been based was:

ASSETS AND LIABILITIES OF DISCONTINUED ENTITIES SOLD

Thousands of Euros	**30/09/2017**
Non-current assets	76,856
Current assets	229,311
TOTAL ASSETS	**306,166**
Equity	81,934
Retained earnings	87,609
Items of OCI reclassified to retained earnings	(5,796)
Items of OCI to be reclassified to P&L	120
Non-current liabilities	47,833
Current liabilities	176,400
TOTAL LIABILITIES	**224,234**
Price received	67,666
Capital Loss	(14,148)

The reconciliation between the consideration paid and the cash flow from investing activities of continuing operations is detailed in note 34.

Parent company separate summarised financial statements

The annual accounts of Umicore are given below in summarised form.

In accordance with the Companies code, the annual accounts of Umicore, together with the management report and the statutory auditor's report will be deposited with the National Bank of Belgium.

UMICORE
Rue du Marais 31 Broekstraat
B-1000 Brussels (Belgium)

The statutory auditor did not express any reservations in respect of the annual accounts of Umicore.

The legal reserve of € 50.0 million which is included in the retained earnings is not available for distribution.

Thousands of Euros	31/12/2015	31/12/2016	31/12/2017
SUMMARISED BALANCE SHEET AT 31 DECEMBER			
1. ASSETS			
Fixed assets	**3,835,808**	**3,847,718**	**4,117,701**
II. Intangible assets	88,287	117,183	110,018
III. Tangible assets	353,974	365,507	398,464
IV. Financial assets	3,393,547	3,365,028	3,609,219
Current assets	**684,601**	**752,880**	**950,746**
V. Amounts receivable after more than one year	373	373	373
VI. Stocks and contracts in progress	343,868	351,864	339,484
VII. Amounts receivable within one year	163,725	216,042	381,570
VIII. Investments	162,043	164,809	200,213
IX. Cash at bank and in hand	951	1,901	780
X. Deferred charges and accrued income	13,641	17,891	28,326
Total assets	**4,520,409**	**4,600,598**	**5,068,447**
2. LIABILITIES AND SHAREHOLDERS' EQUITY			
Capital and reserves	1,214,164	**1,222,013**	**1,211,092**
I. Capital	500,000	500,000	500,000
II. Share premium account	6,610	6,610	6,610
III. Revaluation surplus	91	91	91
IV. Reserves	330,067	289,770	281,908
V. Result carried forward	236,627	270,367	264,754
Vbis. Result for the period	135,456	148,537	149,816
VI. Investments grants	5,313	6,638	7,913
Provisions and deferred taxation			
VII.A. Provisions for liabilities and charges	109,685	111,775	117,426
Creditors	**3,196,560**	**3,266,810**	**3,739,929**
VIII. Amounts payable after more than one year	1,572,000	1,981,249	1,693,125
IX. Amounts payable within one year	1,563,686	1,193,761	1,973,509
X. Accrued charges and deferred income	60,873	91,800	73,295
Total liabilities and shareholders' equity	**4,520,409**	**4,600,598**	**5,068,447**

Thousands of Euros	31/12/2015	31/12/2016	31/12/2017
INCOME STATEMENT			
I. Operating income	2,961,093	2,415,676	2,960,635
II. Operating charges	(2,888,281)	(2,412,640)	(2,900,861)
III. Operating result	**72,812**	**3,036**	**59,774**
IV. Financial income	182,294	258,002	161,063
V. Financial charges	(106,570)	(113,178)	(69,747)
VI. Result on ordinary activities before taxes	**148,536**	**147,860**	**151,090**
X. Income taxes	(13,080)	677	(1,274)
XI. Result for the period	**135,456**	**148,537**	**149,816**
XIII. Result for the period available	**135,456**	**148,537**	**149,816**

Thousands of Euros	2015	2016	2017
APPROPRIATION ACCOUNT			
A. Profit (loss) to be appropriated	**511,065**	**520,620**	**568,719**
1. Profit (loss) for the financial year	135,456	148,537	149,816
2. Profit (loss) carried forward	375,609	372,083	418,903
C. Appropriation to equity	**(8,482)**	**40,296**	**7,862**
3. To the reserve for own shares	(8,482)	40,296	7,862
D. Profit (loss) to be carried forward(1)	**372,083**	**418,903**	**414,569**
2. Profit (loss) to be carried forward	372,083	418,903	414,569
F. Profit to be distributed(1)	**(130,500)**	**(142,013)**	**(162,012)**
1. Dividends			
Ordinary shares	**(130,500)**	**(142,013)**	**(162,012)**

(1) The total amount of these two items will be amended to allow for the amount of the company's own shares held by Umicore on the date of the Annual General Meeting of Shareholders on 26 April 2018; the gross dividend of € 0.7 will not change.

	THOUSANDS OF EUROS	NUMBER OF SHARES
STATEMENT OF CAPITAL		
A. Share capital		
1. Issued capital		
At the end of the preceding financial year	500,000	224,000,000
At the end of the financial year	500,000	224,000,000
2. Structure of the capital		
2.1. Categories of shares		
Ordinary shares	500,000	224,000,000
2.2. Registered shares or bearer shares		
Registered		41,908,468
Bearer		182,091,532
E. Authorised unissued capital	**50,000**	

	% CAPITAL	NUMBER OF SHARES	NOTIFICATION DATE
G. SHAREHOLDER BASE(1)			
Family Trust Desmarais, Albert Frère and Groupe Bruxelles Lambert S.A.	15.00	33,605,672	24/09/2015
BlackRock Investment Management	4.86	10,876,681	14/08/2017
APG Asset management	3.00	6,728,778	24/10/2016
Vanguard International Growth Fund	3.02	6,775,231	06/12/2017
Others	72.10	161,508,071	31/12/2017
Own shares held by Umicore	2.01	4,505,567	31/12/2017
	100.00	224,000,000	
of which free float	100.00	224,000,000	

(1) At 31 December 2017, 5,218,199 options on Umicore shares are still to be exercised. This amount includes 5,218,199 acquisition rights of existing shares held by Umicore.

Management responsibility statement

We hereby certify that, to the best of our knowledge, the Consolidated Financial Statements as of 31 December 2017, prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union, and with legal requirements applicable in Belgium, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and the undertakings included in the consolidation taken as a whole, and that the management report includes a fair review of the development and performance of the business and the position of the group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

16 March 2018,

Marc Grynberg
Chief Executive Officer

Contents

ENVIRONMENTAL STATEMENTS

Environmental statements

ENVIRONMENTAL KEY FIGURES*

	UNIT	NOTES	2013	2014	2015	2016	2017
Metal emissions to water (load)	kg	E2	5,560	5,639	4,459	3,738	**1,437**
Metal emissions to water (impact units)		E2	313,883	543,332	328,013	339,001	**125,688**
Metal emissions to air (load)	kg	E2	12,522	13,309	14,544	1,761	**1,829**
Metal emissions to air (impact units)		E2	130,169	128,465	135,660	86,098	**84,463**
SO_x emissions	tonne	E2	686	1,189	1,197	892	**661**
NO_x emissions	tonne	E2	386	425	452	365	**320**
CO_2e emissions (scope1+2) – Market-based**	tonne	E3	690,767	664,568	710,143	662,059	**633,704**
CO_2e emissions (scope1+2) – Location-based**	tonne	E3	–	–	–	735,065	**663,307**
Energy consumption	terajoules	E4	7,557	7,304	7,742	6,737	**6,532**
Water use	thousand m^3	E5	4,343	4,645	4,904	4,851	**4,755**
Total waste produced	tonne	E7	68,575	76,810	72,663	77,625	**72,804**
Hazardous waste	tonne	E7	45,668	54,824	51,525	59,437	**55,432**
of which recycled	%	E7	16.9	7.5	7.8	3.8	**4.3**
Non-hazardous waste	tonne	E7	22,906	21,986	21,138	18,188	**17,373**
of which recycled	%	E7	60.2	60.4	56.3	57.8	**58.2**
Compliance excess rate	%	E9	0.8	0.9	0.8	0.9	**0.1**
Environmental complaints	N°	E9	25	31	25	19	**34**
Sites ISO 14001 certified	%	E9	97	97	92	88	**92**

* Data for 2015 and previous years includes the divested business unit Zinc Chemicals, while data from 2016 onwards does not. Data for 2016 and previous years includes the divested business unit Building Products, while data for 2017 does not.

** CO_2e emissions data for 2015 and previous years is an aggregation of market-based and location-based scope 2 emissions. A direct comparison to 2016/2017 data is not possible. If such comparison were to be made, the most meaningful approximation is to use the market-based 2016/2017 figure (see section E3 for details).

NOTES TO THE ENVIRONMENTAL KEY FIGURES

E1 SCOPE OF ENVIRONMENTAL STATEMENTS

The environmental key figures include data from consolidated industrial sites where Umicore has operational control. Due to the completion of the divestiture of the business unit Building Products (Discontinued operations) and the closure of four further sites in 2017, the following sites are no longer reported compared to 2016: Auby, Bray-et-Lû, Viviez (France), Bratislava (Slovakia), Gatterstädt (Germany), Lyss-Wiler (Switzerland), Vilvoorde (Belgium) (all Building Products), Port Elizabeth ("Young Park" site of Automotive Catalysts, South Africa), Qingyuan (China, Thin Film Products), Shanghai (China, Cobalt & Specialty Materials) and Suzhou (China, Technical Materials). One site was added to the reporting scope: Rayong (Thailand, Automotive Catalysts). This brings the total number of consolidated industrial sites that report environmental data to 49, down from 59 in 2016.

Within the scope of Umicore's reporting framework, most of the sites report their environmental data at the end of the third quarter together with a forecast for the fourth quarter. In January, the forecasted values are checked by the sites for significant deviations and, if needed, corrected. The six sites with the largest environmental impact for 2017 are: Hanau (Germany; Catalysis, Recycling), Olen (Belgium; Energy & Surface Technologies, Group R&D), Hoboken (Belgium; Recycling), Jiangmen (China; Energy & Surface Technologies), Cheonan UMK and Cheonan UMAK (both Korea; Energy & Surface Technologies). They report their full year figures. A sensitivity analysis undertaken for the 2017 data on energy consumption data indicates that the potential deviation of the Group environmental performance would be less than 2% in case of a 20% error in the forecasted data.

Please note that due to improved analytical and reporting methods, some of the data published in the 2016 annual report has been restated in the 2017 report. Unless mentioned otherwise, environmental key performance indicators (KPIs) for 2015 and previous years include the business unit Zinc Chemicals that was divested during 2016, while 2016 and 2017 KPIs do not include Zinc Chemicals. Likewise, environmental KPIs for 2016 and previous years include the business unit Building Products that was divested during 2017, while 2017 KPIs do not include Building Products, unless mentioned otherwise.

More details on Umicore's management approach are available in the corresponding section on pages 63-67.

E2 EMISSIONS TO WATER AND AIR

Umicore's Vision 2015 achievements of reducing our metal emissions to water and air in terms of impact by 26% and 37%, respectively, marked a great step towards sustainable operations. We consider the emission levels achieved in 2015 our frame of reference in the context of sustainable operations that include the management of the emissions to water and air.

The aim for Horizon 2020 is to build on the Vision 2015 achievements by reducing the impact of metal emissions while considering growing volumes of production. In practice, this means that we aim to at least maintain the level of metals emitted to water and air in terms of impact that we achieved as part of Vision 2015.

Metal emissions to water are defined as the total amount of metals emitted after treatment to surface water from effluent(s) expressed in kg/year. If sites make use of an external waste water treatment plant, the efficiency of that treatment is considered if known to the site.

Metal emissions to air are defined as the total amount of metals emitted to air in solid fraction by all point sources expressed in kg/year. For mercury and arsenic, additional vapor/fume fractions are counted as well.

For each of the metals emitted to water and air, an impact factor is applied to account for the different toxicity and ecotoxicity levels of the various metals when they are emitted to the environment. The higher the impact factor, the higher the toxicity is to the receiving water body (for water emissions) or to human health (for air emissions).

The impact factors for water emissions are based upon scientific data generated ("predicted no effect concentrations" or PNECs) for the REACH regulation. An impact factor of 1 was attributed to the antimony PNEC of 113 µg/l. The impact factors for emissions to air are based upon the occupational exposure limits (OEL) (reference: American Conference of Industrial and Governmental Hygienists, 2011). An impact factor of 1 was attributed to the zinc (oxide) OEL of 2 mg/m^3. Subsequently, an impact factor for all relevant metals was calculated based upon these references. The metal impact to air and to water is expressed as "impact units/year".

We identified the sites that contribute at least 95% in terms of load (for SO_x and NO_x) or impact units (for metals emissions to water and air) of the total 2015 Group figures (excluding the divested business unit Zinc Chemicals). For emissions to water and air, data collection for 2017 was restricted to the identified material sites (fewer than 10). All other sites were requested to only submit data in case of significant upward deviations from the 2015 baseline for the site.

The aim of improving on 2015 levels of metal emissions to water and air is measured by way of comparing emissions of the current reporting year (i.e. 2017) with those of the reference year 2015 and using the same scope of activities as 2015 for the material sites.

To calculate the change in metal emissions to water and air in comparison with the reference year 2015, a baseline has been established for each site in scope. The baseline is established by multiplying the actual activity level of the current reporting year (i.e. 2017) by the 2015 emission intensity (see example below). The baseline 2015 is then calculated by adding up all site-level baselines for the sites in scope. Examples of activity parameters at sites are: tonnes produced per year, machine hours per year, tonnes of input material in recycling process per year.

Example

In 2015, site A produced 20 t of product X and emitted 5 kg of metal Y (impact factor of Y = 8 impact units/kg) to air, resulting in a metal emissions intensity of 2 impact units/t of product X. In 2017, site A produced 22 t of product X and emitted 5 kg of metal Y, resulting in a metal emissions intensity of 1.8 impact units/ton of product X.

The 2015 baseline reported in 2017 is then: activity level of 2017 (22 t) x 2015 emissions intensity (2 impact units/t) = 44 impact units.

Therefore, the measured 5 kg – equivalent to 40 impact units – emitted in 2017 represents a reduction of 10% compared to what it would have been under 2015 operating conditions.

The 2015 baseline is recalculated yearly (2016, 2017 and the following years). It is defined as the metal emissions that would have been expected with the activity volumes of the reporting year (i.e. 2017), but with the metal emissions intensity of the reference year 2015. The performance for each year is expressed as a percentage in comparison to the calculated 2015 group baseline applicable to each year.

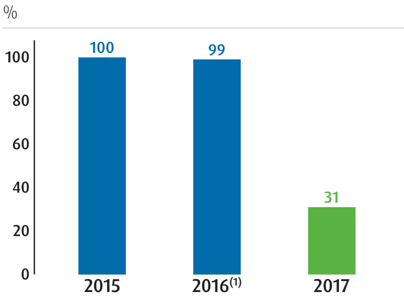
The calculation of metal emissions to water and air covers fully consolidated operations and activities that are part of the Group during the reporting year (2016, 2017 and the following years) and that were also part of the Group in 2015. Performance is reported only for the total of the material sites for each KPI.

SO_x and NO_x emissions are expressed in absolute numbers in tonnes/year.

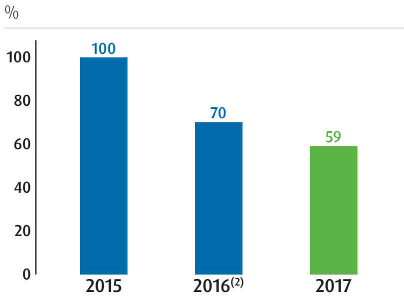
GROUP DATA – EMISSION SCOPE METAL EMISSIONS TO AIR AND WATER

	UNIT	BASELINE 2015 IN RELATION TO 2017	2016	2017
Metal emissions to water	impact units	409,691	339,001	**125,688**
Metal emissions to air	impact units	144,049	86,098	**84,463**

METAL EMISSION REDUCTION PERFORMANCE (TO WATER)



METAL EMISSION REDUCTION PERFORMANCE (TO AIR)



(1) Baseline 2015 in relation to 2016 was 343,649, leading to a reduction of 1% in 2016 in comparison with 2015.
(2) Baseline 2015 in relation to 2016 was 123,831, leading to a reduction of 30% in 2016 in comparison with 2015.

METAL EMISSIONS TO WATER

The metal emissions to water in 2017 using the defined scope resulted in 125,688 impact units. Metal emissions to water in 2015 using the defined scope were 308,753 impact units. To assess progress on our commitment, this 2015 metal emissions level normalised for 2017 activity was 409,691 impact units. In 2017, we have therefore achieved a 69% reduction of metal emissions to water in terms of impact for the defined scope.

This evolution can be mainly attributed to our Hoboken plant (Belgium, Recycling). The increased efficiency of the waste water treatment plant at the site due to investments in improvement projects over the last years is paying off, and some efficiency improvements and scale-effects after an additional capacity increase of precursor production at our new site in Cheonan (Korea, Energy & Surface Technologies) have also contributed to the decrease of the emission intensity in terms of impact by metals emissions to water.

METAL EMISSIONS TO AIR

The metal emissions to air in 2017 using the defined scope were 84,463 impact units. Metal emissions to air in 2015 using the defined scope resulted in 117,918 impact units. To assess progress on our commitment, this 2015 metal emissions level normalized for 2017 activity was 144,049 impact units. In 2017, we have therefore achieved a 41% reduction of metal emissions to air in terms of impact for the defined scope.

The reductions are observed across almost all the sites in scope to a varying degree, and can be ascribed for the most part to further efforts that improved air filter efficiency and to improvements in overall process efficiency.

LEAD EMISSIONS AT HOBOKEN (BELGIUM, RECYCLING)

In 2015, infrastructure works at the roof of the lead refinery led to increased lead deposition in the surrounding residential area of Moretusburg. Consequently, the biological monitoring results showed an increased number of children with lead in blood levels above the recommended reference level of 5 micrograms/dl blood (Centre for Disease Control and Prevention, USA). This biological monitoring campaign is conducted twice per year by the provincial authorities.

The site pulled together to identify improvements actions to reverse the deposition values. These projects subsequently implemented took priority over other investments that had already been planned. By the end of 2016, the rolling annual average for lead emissions decreased again to acceptable levels. While average lead levels among children in the neighbourhood have decreased, continued action and follow-up will be needed to further reduce the number of children with lead in blood levels above the reference value. At the fall biological monitoring campaign, in 2017, 32% of the children still had lead in blood levels above the reference value of 5 μg/dl, down from 37% in fall 2016.

Umicore continues to work closely with the authorities to implement specific precautionary hygiene measures such as the cleaning of the homes of the children with the highest levels of lead concentration.

OTHER EMISSIONS

	UNIT	2013	2014	2015	2016	2017
SO_x emissions	tonne	686	1,189	1,197	892	**661**
NO_x emissions	tonne	386	425	452	365	**320**

The SO_x emissions for the Group decreased from 892 t in 2016 (excluding the divested business unit Building Products) to 661 t in 2017, a reduction of 26%.

The NO_x emissions decreased from 349 t in 2016 (excluding the divested business unit Building Products) to 320 t in 2017, an 8% reduction.

E3 GREENHOUSE GASES

The introduction of our energy efficiency and carbon footprint policy in 2011 guided us to a 26% reduction in CO_2 equivalent emissions within the defined scope in Vision 2015 and to permanent attention and awareness of energy efficiency at the sites and in the business units' management processes.

Under Horizon 2020, Umicore's improvement focus is on energy efficiency. The efforts to increase energy efficiency are expected to contribute to further reducing our carbon footprint.

Umicore reports its absolute CO_2e emissions as per the scope outlined in E1. The absolute CO_2 equivalent (CO_2e) emission volumes are calculated using the Greenhouse Gas Protocol definition and reporting methodology for scope 1 and 2 (WBCSD and WRI 2004, and amendment for scope 2 of 2015). Scope 2 for Umicore includes not only purchased electricity but also steam and compressed air purchased from third parties (e.g. from industrial parks). CO_2e includes the greenhouse gases CO_2, CH_4 and N_2O for scope 1 and major process emissions. Other greenhouse gases are not relevant in Umicore's operations. The scope 2 emissions take only CO_2 into account.

The calculation of scope 2 emissions for each site is done in two ways: once using market-based CO_2 emission factors and once using location-based CO_2 emission factors. The market-based emission factors allow calculating the CO_2 emissions based on the specific contracts that sites have in place with their energy suppliers, considering the relevant energy mix for these contracts (including green energy attributes, where applicable). The location-based CO_2 emission factors facilitate calculating the CO_2 emissions based on the residual energy mix in a country/region (where this data is available), thus explicitly excluding green energy attributes that are sold by the power producers in dedicated supply contracts. The total CO_2 emissions for the Group are then presented as two separate values based on this differentiation, and the metrics are abbreviated as: CO_2e market-based and CO_2e location-based.

The WBCSD Chemical Sector Working Group on GHG Measurement and Reporting established additional guidance to cope with observed anomalies in GHG reporting. Umicore has implemented these guidelines already since the 2012 reporting. The publication of the sector guidelines can be found on their website.

GROUP DATA

	UNIT	2013	2014	2015	2016	2017
CO_2e emissions (scope1+2) – Market-based	tonne	690,767	664,568	710,143	662,059	**633,704**
CO_2e emissions (scope1+2) – Location-based	tonne	–	–	–	735,065	**663,307**

Total CO_2e market-based emissions in 2017 were 633,704 t. Total CO_2e location-based emissions were 663,307 t. The difference between these two figures, 29,603 t, is due to specific energy contracts with a favourable energy mix that our sites have in place, which result in a lower carbon footprint than the residual energy mix for the country/region that the site is located in.

Total CO_2e market-based emissions in 2016 were 662,059 t (646,454 t when excluding the divested business unit Building Products, which represented 2% of the Group's market-based emissions in that year). Total CO_2e location-based emissions in 2016 were 735,065 t (720,160 t when excluding the divested business unit Building Products, which represented 2% of the Group's location-based emissions in that year).

The comparison of 2017 with 2016 market-based emissions (excluding the divested business unit Building Products) shows relatively stable emissions (down 2% year-on-year). This is due to a combination of factors and can mainly be attributed to higher activity levels across several sites of the business units Rechargeable Battery Materials and Cobalt & Specialty Materials on the one hand, and to the closure of further individual sites (see section E1) as well as emission reductions and favorable CO_2 emission factors for purchased energy at Hoboken (Belgium, Recycling) on the other hand. When including the divested business unit Building Products in the 2016 figures, there is a 4% reduction year-on-year.

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	UMICORE GROUP
CO_2e emissions (scope1+2) – Market-based	tonne	108,401	229,368	295,493	**633,704**
CO_2e emissions (scope1+2) – Location-based	tonne	119,627	235,588	307,629	**663,307**

E4 ENERGY

Umicore is committed under Horizon 2020 to an even more efficient use of energy in its operations. In practice, this means that we aim to further increase the energy efficiency level that we achieved as part of Vision 2015.

The WBCSD Chemical Sector Working Group on GHG Measurement and Reporting established additional guidance to cope with observed anomalies in GHG and energy reporting. Umicore has implemented these guidelines already since the 2012 reporting. Publication of the sector guidelines can be found on the WBCSD website.

In the scope of Horizon 2020 a greater emphasis is on those sites that are contributing the most to Umicore's total energy consumption, and certain parameters such as activity indicators have been thoroughly reviewed for those sites and updated where required. Monitoring and reporting of the energy consumption continues to be done at all sites. The bigger contributors are additionally encouraged and required to report on their energy efficiency projects.

An analysis of the contributions of the sites to the energy consumption at group level identified 23 sites that contributed more than 95% to the 2017 total.

GROUP DATA – IN THE CONTEXT OF THE ENERGY EFFICIENCY OBJECTIVE

The aim of improving on 2015 levels of energy efficiency is measured by way of comparing the energy consumption of the current reporting year (i.e. 2017) with the energy consumption of the reference year 2015 and using the same scope of activities as 2015.

To calculate the change in energy consumption in comparison with the reference year 2015, a baseline has been established for each site in scope. The baseline is established by multiplying the actual activity level of the current reporting year (i.e. 2017) by the 2015 energy intensity (see example below). The baseline 2015 is then calculated by adding all site-level baselines for the sites in scope. Examples of activity parameters at sites are: tonnes produced per year, machine hours per year, tonnes of input material in recycling process per year.

Example

In 2015 site A produced 200 t of product X and consumed 80,000 GJ, resulting in an energy intensity of 400 GJ/t of product X. In 2017 site A produced 220 t of product X and consumed 80,000 GJ, resulting in an energy intensity of 364 GJ/ton of product X.

The 2015 baseline reported in 2017 is then: activity level of 2017 (220 t) x 2015 energy intensity (400 GJ/t) = 88,000 GJ.

Therefore the 80,000 GJ consumed in 2017 represents an improvement of 10% compared to what it would have been under 2015 operating conditions.

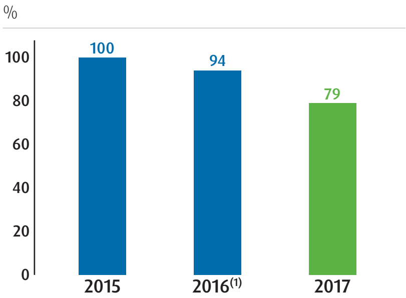
The baseline 2015 is recalculated yearly (2016 and the following years). It is defined as the energy consumption that would have been expected with the activity volumes of the reporting year (i.e. 2017), but with the energy intensity of the reference year 2015. The performance for each year is expressed as a percentage in comparison to the calculated 2015 group baseline applicable to each year.

The calculation of this KPI covers fully consolidated operations and activities that are part of the Group during the reporting year (2016, 2017 and the following years) and that were also part of the Group in 2015. It should be noted that the sites of the former business units Zinc Chemicals and Building Products and sites that were added to the reporting in 2016 and 2017, i.e. Nowa Ruda (Poland) and Rayong (Thailand) (both Catalysis), are therefore not in the reporting scope for this KPI. The energy consumption data also includes our corporate headquarters in Brussels (Belgium).

ENERGY EFFICIENCY OBJECTIVE

	UNIT	BASELINE 2015 IN RELATION TO 2017	2016	2017
Energy consumption	terajoules	7,720	6,241	**6,082**

NORMALISED ENERGY CONSUMPTION



(1) Baseline 2015 in relation to 2016 was 6,664 TJ, leading to a reduction of 6% in 2016 in comparison with 2015.

The energy consumption 2017 using the defined scope was 6,082 TJ. The energy consumption in 2015 using the defined scope was 5,557 TJ. To assess progress on our commitment, this 2015 energy consumption level normalised for 2017 activity was 7,720 TJ. This means that for equivalent production levels we consumed 21% less energy. In other words, the energy efficiency has improved by 21% in 2017 compared to the reference year 2015.

This improvement is mainly due to scale-effects in connection with the ongoing capacity increase at our Rechargeable Battery Materials sites. Further improvements and consolidations at other sites also contributed to the overall decrease in energy intensity.

Energy efficiency projects have been implemented at the most important sites in line with foregoing sustainable development objectives since 2006. In 2017, 23 sites represented more than 95% of the Group's energy consumption. At these sites, 38 energy efficiency projects have been reported as being implemented during 2017 and contributed significant energy savings.

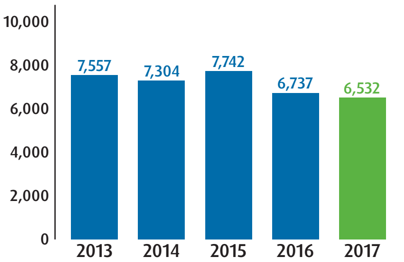
ABSOLUTE ENERGY CONSUMPTION

Total energy consumption increased from 6,323 TJ in 2016 (excluding the divested business unit Building Products) to 6,532 TJ in 2017, a 3% increase year-on-year.

Indirect energy consumption by primary energy source (purchased electricity, steam and compressed air) for production sites and office buildings in 2017 was 2,632 TJ. Direct energy consumption by primary energy source (fuel, gas oil, natural gas, LPG, coal and cokes) was 3,900 TJ.

ENERGY CONSUMPTION (ABSOLUTE)

terajoules



BUSINESS GROUP DATA

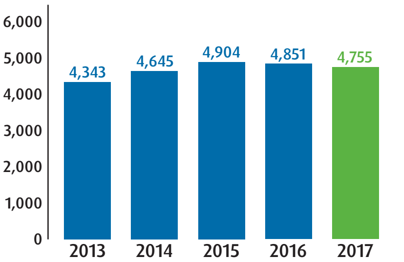
	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	UMICORE GROUP
Energy consumption	terajoules	980	2,646	2,897	**6,532**

E5 WATER USE

GROUP DATA

WATER USE

thousand m³



Water use is defined as the total volume of water expressed in thousand m^3/year from domestic water supply, groundwater wells, surface water and rainwater. Groundwater extraction for remediation purposes and cooling water returned to its original water body are not counted.

The total water use for the Group increased somewhat, from 4,435 thousand m^3 in 2016 (excluding the divested business unit Building Products) to 4,755 thousand m^3 in 2017. The increase in water use is mainly due to intensified dust suppression at the Hoboken site (Belgium, Recycling).

BUSINESS GROUP DATA

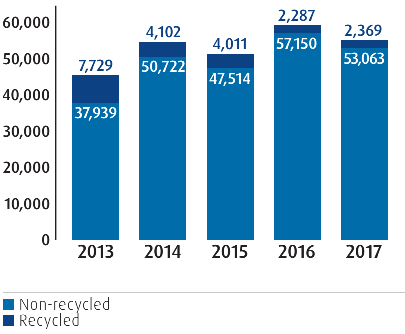
	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	UMICORE GROUP
Water use	thousand m³	622	2,235	1,898	**4,755**

E6 WASTE

GROUP DATA

HAZARDOUS WASTE

tonne



Waste is defined as the total volume of generated waste expressed in tonnes/year.

The waste recycling rate is the ratio of the waste recovered by third parties (including waste recovered as energy through incineration) and the total waste.

The distinction between hazardous and non-hazardous waste is made based on the local regulation for the region where the reporting entity is located.

In 2017, a total of 72,804 tonnes of waste were generated compared to 74,546 tonnes in 2016 (excluding the divested business unit Building Products), a decrease of 2%.

The total volume of hazardous waste decreased from 57,441 tonnes in 2016 (excluding the divested business unit Building Products) to 55,432 tonnes in 2017, a decrease of 3%. The recycling rate of hazardous waste has remained at similar levels with 4% in 2017 compared to 3% in 2016 (excluding Building Products).

The total volume of non-hazardous waste increased from 17,105 tonnes in 2016 (excluding the divested business unit Building Products) to 17,373 tonnes in 2017, an increase of 2%.

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	UMICORE GROUP
Total waste produced	**tonne**	**5,469**	**27,363**	**39,973**	**72,804**
Hazardous waste	tonne	3,655	18,460	33,316	**55,432**
of which recycled	%	7.30	4.67	3.72	**4.27**
Non-hazardous waste	tonne	1,813	8,903	6,657	**17,373**
of which recycled	%	47.23	33.11	94.70	**58.18**

E7 HISTORICAL POLLUTION

Active participation in the management and remediation of risks that have resulted from historical operations is an integral part of the Umicore Way. Over the past 15 years, Umicore's proactive programme for assessing and remediating, where necessary, soil and groundwater contamination has made significant progress. The following section illustrates the main ongoing programmes and the progress made during 2017.

BELGIUM

Background: On 23 April 2004, Umicore signed a Covenant with the regional waste authorities (OVAM) and the Regional Minister of the Environment in the Flemish Region of Belgium according to which Umicore committed to spend € 62 million over 15 years to remediate the historical pollution on four sites, two of which – Balen and Overpelt – now belong to Nyrstar, a business that was divested by Umicore in 2007.

2017 Activities: In Hoboken, an agreement was reached with the competent authorities to extend the on-site storage facility, so that on-site remediation work (excavation) can restart. An alternative concept for groundwater remediation has been discussed and agreed upon with the authorities. The practical implementation of the remedial system is planned in 2019.

In Olen, the on-site groundwater remediation programme that was started in 2007 continued in 2017. In 2017, contaminated soil and buried waste were further excavated at different locations where infrastructure work was needed, such as the construction of the new canteen.

In 2014, Umicore and the competent authorities signed an agreement to extend by 5 years the period to complete the necessary risk reduction action within the 9 km perimeter. The agreement also contains an important clause through which Umicore and the authorities will tackle remediation of the Bocholt site, a former arsenic plant that was shut down and dismantled in the early 1970s. Work will start in 2018.

FRANCE

In Viviez, Umicore has completed the large-scale remediation programme that was started in 2011 and has transferred the post-remedial obligations to a third party. In 2017, Umicore together with other partners joined a voluntary program to address the soil contamination identified in the private gardens around the Viviez site. Data collection was performed in 2017, and appropriate measures will be defined.

The former mining concession Saint-Félix de Pallières in the South of France was secured in full compliance with the applicable legislation and returned to the French Authorities in 2004. In recent years, more attention has been focused by certain stakeholder groups on the potential health effects linked to the former mining activities. Although the authorities, including the Ministry of Environment, have acknowledged that the mining concession was returned to the French State according to the requirements of the applicable legislation, Umicore committed voluntarily to support the authorities in addressing the concerns of the local population.

USA

Umicore continued to treat drainage water at a former mining site in Colorado. Umicore is currently building a new waste water treatment facility that will further decrease the metal concentration in the discharge, thus decreasing the volume of solid waste produced.

After the closedown of the Maxton plant in North Carolina, soil and groundwater contamination was identified. Umicore entered a voluntary remediation programme with the authorities to fully address the issue by 2033. In 2017, a significant part of the soil contamination was addressed by stabilising the metals and thus preventing them from leaching into the groundwater.

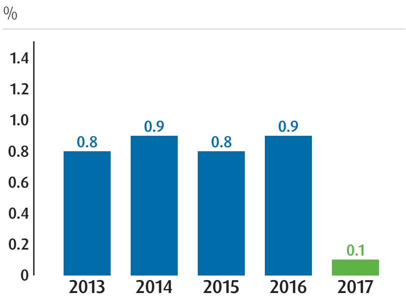
BRAZIL

During an environmental assessment that was performed following its acquisition in 2003, groundwater pollution was detected at the Guarulhos site in Brazil. This historical pollution dates from before Umicore's purchase of the operations. Umicore took immediate measures to stop the spreading of this contamination to the neighbouring areas by installing a hydraulic barrier that has been in full operation since 2011. Targeted extraction systems were put in place on site to speed up the remediation. Umicore is continuing to consider more cost-effective remedial systems, such as in-situ applications.

E8 REGULATORY COMPLIANCE AND MANAGEMENT SYSTEM

GROUP DATA

COMPLIANCE EXCESS RATE



The compliance excess rate is the ratio between the total number of excess results and the total number of compliance measurements. An excess result is a monitoring result that violates a limit value defined in a permit, regulation, or other relevant regulatory standard.

The total number of measurements is the total number of environmental impact measurements as required by the operational permit, environmental permit, or comparable standard in the region the reporting entity is operating. The total number means the number of measurements multiplied by the number of parameters per measurement.

In 2017, some 55,000 environmental measurements were carried out at all of Umicore's industrial sites compared to some 43,000 the year before (excluding the divested business unit Building Products).

The number of measurements that did not meet the regulatory or permit requirements is very low at 0.1% for the Group, compared to 0.9% in 2016. The year-on-year reduction is mainly due the divestment of a site where a higher ratio of excess readings was reported in 2016 and prior years.

Of the 49 consolidated industrial sites, 45 sites have put in place an environmental management system certified against ISO 14001. The remaining four sites are acquisitions that joined Umicore reporting between 2015-17, and all four sites are planning the implementation of an environmental management system during 2018/2019. Except for the newer of the two Cheonan sites (Korea, Energy & Surface Technologies), the five other major sites with significant environmental impacts have been certified against the ISO 14001 management system for many years. The newer of the two Cheonan sites, which joined Umicore reporting in 2015, has scheduled the implementation of a certified environmental management system during 2018.

In total, 34 environmental complaints were received in 2017, most of which were related to noise and odour. Twenty-one of the complaints are ongoing.

SOCIAL STATEMENTS

Contents

Social statements

SOCIAL KEY FIGURES

	UNIT	NOTES	2013	2014	2015	2016	2017
Workforce (fully consolidated companies)	N°	S2	10,190	10,368	10,429	9,921	**9,769**
Temporary contracts	% of workforce	S2	3.42	3.62	3.91	3.45	**3.86**
Women amongst all employees	% of workforce	S2	21.53	21.68	21.72	21.60	**21.92**
Women amongst all managers	% of workforce	S2	20.52	21.25	22.18	22.11	**22.37**
Women amongst senior management	% of workforce	S2	8.70	8.33	9.49	9.09	**6.77**
Women in "business operations" management functions	%	S2	–	–	–	14.27	**15.55**
Non-European representation in senior management functions	%	S2	–	–	–	16.67	**18.05**
Average training hours per employee	hours/employee	S3	45.18	45.59	45.06	41.49	**45.33**
Employees having a yearly appraisal	% of workforce	S3	95.65	95.82	95.97	96.03	**98.29**
Voluntary leavers – ratio	% of workforce	S3	3.33	3.42	3.35	4.10	**5.03**
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	S4	71.33	71.44	71.11	69.41	**65.41**
Exposure ratio "all biomarkers aggregated" (1)	%	S6	2.6	1.8	2.3	3.2	**2.7**
Number of occupational linked diseases	N°	S6	14	21	12	12	**11**
People with platinum sensitisation	N°	S6	4	4	0	1	**1**
Fatal accidents	N°	S7	0	2	0	1	**0**
Lost Time Accidents (LTA)	N°	S7	35	37	47	59	**51**
Lost Time Accidents (LTA) for sub-contractors	N°	S7	22	11	9	15	**22**
LTA frequency rate	LTA/million hours worked	S7	2.08	2.16	2.66	3.34	**3.01**
LTA severity rate	lost days/thousand hours worked	S7	0.10	0.94	0.12	0.56	**0.09**

(1) Ratio between the number of monitoring results exceeding the Umicore target value, defined for relevant hazardous substances, and the total number of monitoring results.

NOTES TO THE SOCIAL KEY FIGURES

S1 SCOPE OF SOCIAL STATEMENTS

In total, 92 consolidated sites are included in the HR related notes of the social reporting (S2 to S5).

This is 10 fewer than in 2016, mainly because of divestments. The largest impact came from the divestment of the Building Products business unit and the acquisitions in Catalysis.

The sites report full year data for the social indicators. The indicators presented are based on data from fully consolidated companies unless indicated otherwise.

The workforce-related indicators contain the data for the sites acquired from Haldor Topsøe. The other indicators however do not have these sites in scope, since they only joined Umicore in December. Workforce and other indicators for the divested sites of Building Products and Thin Film Products site in China are not included.

The historical numbers (2016 and before) were not restated.

S2 WORKFORCE

GROUP DATA

	UNIT	2013	2014	2015	2016	2017
Workforce (fully consolidated companies)	N°	10,190	10,368	10,429	9,921	**9,769**
Workforce from associated companies	N°	3,867	3,706	3,301	3,196	**3,360**
Employees men	N°	7,996	8,120	8,164	7,778	**7,628**
Employees women	N°	2,194	2,248	2,265	2,143	**2,141**
Full-time equivalent	N°	–	–	–	9,716	**9,574**
Employees < 30 years	N°	–	–	–	1,620	**1,697**
Employees between 30 and 50 years	N°	–	–	–	5,605	**5,504**
Employees > 50 years	N°	–	–	–	2,696	**2,568**
Temporary contracts	% of workforce	3.42	3.62	3.91	3.45	**3.86**
Women amongst all employees	% of workforce	21.53	21.68	21.72	21.60	**21.92**
Women amongst all managers	% of workforce	20.52	21.25	22.18	22.11	**22.37**
Women amongst senior management	% of workforce	8.70	8.33	9.49	9.09	**6.77**
Women in "business operations" management functions	%	–	–	–	14.27	**15.55**
Non-European representation in senior management functions	%	–	–	–	16.67	**18.05**

Workforce: Number of employees on Umicore payroll at the end of the period in fully consolidated companies.

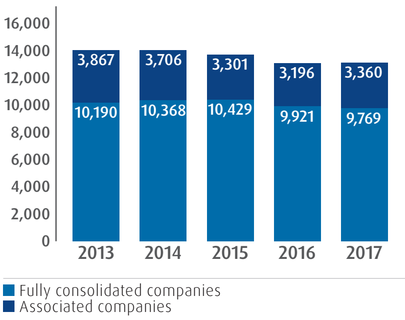
The number includes part-time and temporary employees but excludes employees with a dormant contract, employees on long-term illness and sub-contracted employees.

Temporary contract: Umicore employees with a temporary contract, included in the workforce of fully consolidated companies.

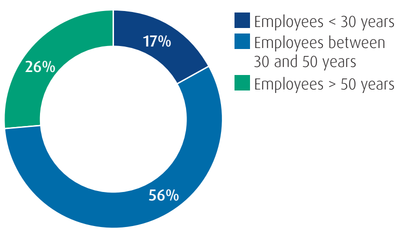
Full time equivalent: The FTE of a worker is calculated by dividing the actual working regime, hours, shifts by the regime, hours, shifts of a full-time worker at the end of the period in fully consolidated companies.

This applies to all hourly paid, monthly paid, managers and interns on Umicore's payroll at the end of the reported semester including part-time and temporary employees but excludes employees with a dormant contract (career interruption, maternity leave, parental leave, etc.), employees on long-term illness (country specific length of continuous absence) and early retirees.

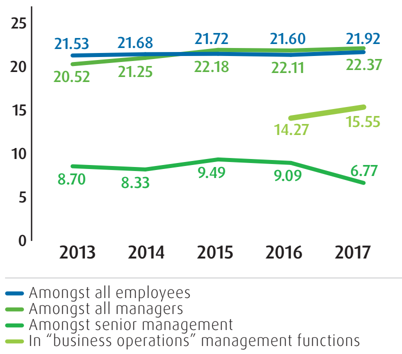
TOTAL WORKFORCE



WORKFORCE – AGE SPLIT



WOMEN REPRESENTATION



TOTAL WORKFORCE

The total workforce increased by 12 employees to a total of 13,129. For the fully consolidated companies, the workforce decreased by 152 people to 9,769, mainly because of the divestment of Building Products. While the divestment of Building Products alone would have seen a larger decrease in workforce, business groups Catalysis and Energy & Surface Technologies saw growth to bring the reduction to a lesser number.

Amongst the associated companies there was an increase of 164 employees driven by organic growth in Element Six Abrasives.

The FTE of 9,574 (consolidated) comes very close to the reported headcount of 9,769, illustrating that most of Umicore employees are working on a full-time basis.

TEMPORARY CONTRACTS

Temporary contracts as a percentage of the workforce of fully consolidated companies increased slightly to 3.86% in 2017.

GENDER SPLIT

The percentage of women was 21.92% as a proportion of the workforce of fully consolidated companies. It has remained in a narrow range of between 21% and 22% during the last six years. Women are more represented in administrative and commercial functions, compared to functions in the industrial operations.

GENDER SPLIT – SENIOR MANAGERS

While the total percentage of women employees has remained rather stable (see above), the percentage of women managers has shown a steady increase from 18.65% in 2010 to 22.37% in 2017. The percentage of women in senior management has decreased the last two years, resulting in 6.77%. We have set the ambition to reach 15% of women in senior management functions by 2020.

WOMEN IN "BUSINESS OPERATIONS" MANAGEMENT FUNCTIONS

To monitor career development, we have defined the notion of "business operations" management functions, referring to those in the fields of operations, sales and General Management. Within the senior management group, these functions represent 55% of the group, as opposed to 45% for the support functions.

As from the year 2016, we monitor the percentage of women in these "business operations" functions, because these functions seem to offer a clearer pathway into the senior functions. In 2017, the percentage of women within this management group employed in business operations functions rose to 15.55% compared to 14.27% in 2016.

NON-EUROPEAN REPRESENTATION IN SENIOR MANAGEMENT FUNCTIONS

As from 2016, we also monitor the percentage of non-European representation in senior management functions, as an indicator for diversity. In 2017, this percentage increased to 18.05% from 16.67% in 2016.

REGIONAL DATA

	UNIT	EUROPE	NORTH AMERICA	SOUTH AMERICA	ASIA-PACIFIC	AFRICA	UMICORE GROUP
Workforce (fully consolidated companies)	N°	5,782	858	685	2,182	262	**9,769**
Workforce from associated companies	N°	1,098	17	446	1,027	772	**3,360**
Employees men	N°	4,561	672	506	1,729	160	**7,628**
Employees women	N°	1,221	186	179	453	102	**2,141**
Full-time equivalent	N°	5,603.61	853.81	684.50	2,180.00	251.64	**9,573.56**
Temporary contracts	% of workforce	5.07	0.58	0.88	3.30	0.38	**3.86**

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE	UMICORE GROUP
Workforce (fully consolidated companies)	N°	2,952	2,716	3,092	1,009	**9,769**
Workforce from associated companies	N°	0	917	0	2,443	**3,360**
Employees men	N°	2,359	2,118	2,557	594	**7,628**
Employees women	N°	593	598	535	415	**2,141**
Full-time equivalent	N°	2,924.67	2,709.88	3,061.37	877.64	**9,573.56**
Temporary contracts	% of workforce	4.51	4.34	2.94	3.47	**3.86**

GENERAL OVERVIEW OF SITES AND EMPLOYEES

	PRODUCTION SITES	R&D | TECHNICAL CENTRES	OTHER SITES	EMPLOYEES
Europe				
Austria	1			137
Belgium	3	1	1	2,898
Denmark	1	1		101
France	3		2	244
Germany	5 (1)	2	1 (1)	1,985 (366)
Ireland	(1)			(541)
Italy	1		2	80
Liechtenstein	1	1		83
Luxembourg			1	11
Netherlands	1			47
Poland	1		1	94
Portugal			1	5
Russia			1	7
Spain			1	4
Sweden	1		1 (1)	39 (8)
Switzerland			1	3
United Kingdom	1	(1)	3 (1)	44 (183)
Asia-Pacific				
Australia			1	9
China	5 (3)	1	5 (1)	906 (1,014)
India	1		1	71
Japan	2	3	2 (1)	174 (9)
Philippines	1			79
South Korea	3	2	2	744
Taiwan			2	21
Thailand	2		1	178
United Arab Emirates			(1)	(4)
North America				
Canada	3			226
Mexico			1	5
United States	9	2	3 (1)	627 (17)
South America				
Argentina	1			59
Brazil	4	1		626
Peru	(1)			(446)
Africa				
South Africa	1 (1)		1	262 (772)
Total	**51 (7)**	**14 (1)**	**35 (7)**	**9,769 (3,360)**

Figures in brackets denotes "of which associates and joint venture companies". Where a site has both production facilities and offices (eg Hanau, Germany) it is classified as a production site only. Some of our production sites and R&D | technical centres are located on the same site but are counted separately.

S3 PEOPLE ENGAGEMENT

GROUP DATA

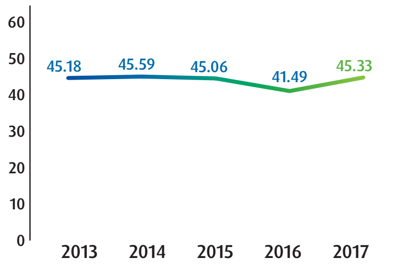
	UNIT	2013	2014	2015	2016	2017
Employees having a yearly appraisal	% of workforce	95.65	95.82	95.97	96.03	**98.39**
Average number of training hours per employee	hours/employee	45.18	45.59	45.06	41.49	**45.33**
Average number of training hours per employee – Men	hours/employee	45.82	48.09	45.32	42.38	**46.53**
Average number of training hours per employee – Women	hours/employee	42.26	39.76	47.39	38.28	**41.01**
Average number of training hours per employee – Managers	hours/employee	41.41	37.18	34.24	41.03	**38.54**
Average number of training hours per employee – Other employee categories	hours/employee	44.82	46.29	46.09	41.52	**46.44**
Voluntary leavers ratio	% of workforce	3.33	3.42	3.35	4.10	**5.03**
Voluntary leavers men	N°	253	273	280	309	**404**
Voluntary leavers women	N°	89	80	69	97	**70**

Training hours: Average number of training hours per employee, including all types of training (formal, training on the job, E-learning, etc.) in which the company provides support and which are relevant to the business unit or the company. The total number of training hours is divided by the total workforce of fully consolidated companies.

Voluntary leavers: Number of employees leaving the company of their own will (excluding retirement and the expiry of a fixed-term contract). This figure is related to the workforce from fully consolidated companies.

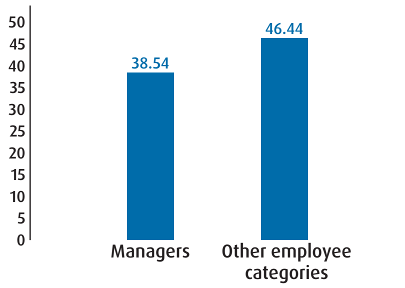
AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE

Hours/employee



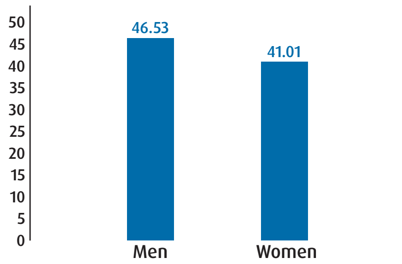
AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE CATEGORY

Hours/employee



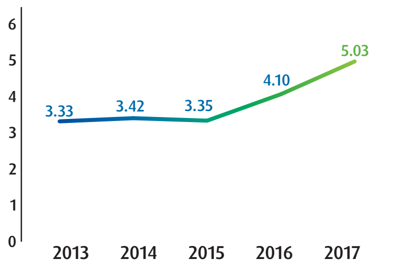
AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE – GENDER SPLIT

Hours/employee



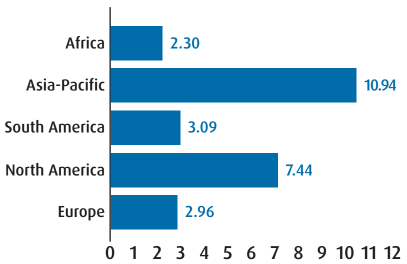
VOLUNTARY LEAVERS RATIO

%



VOLUNTARY LEAVERS RATIO

% of workforce



REGIONAL DATA

	UNIT	EUROPE	NORTH AMERICA	SOUTH AMERICA	ASIA-PACIFIC	AFRICA	UMICORE GROUP
Average number of training hours per employee	hours/employee	39.02	39.15	72.57	58.55	29.87	**45.33**
Employees having a yearly appraisal	% of workforce	98.68	96.59	98.82	97.64	98.85	**98.29**
Voluntary leavers ratio	% of workforce	2.96	7.44	3.09	10.94	2.30	**5.03**

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE	UMICORE GROUP
Average number of training hours per employee	hours/employee	45.22	49.06	43.63	41.02	**45.33**
Employees having a yearly appraisal	% of workforce	96.69	97.92	99.48	99.90	**98.29**
Voluntary leavers ratio	% of workforce	5.13	8.48	2.85	2.41	**5.03**

TRAINING HOURS

In 2017, the average training hours per employee reached 45.33 hours. This is an increase from 2016 and a return towards the average number of the previous years.

This increase is partially attributed to higher training efforts for the sites that are expanding and that need to make extra onboarding efforts for the newly hired employees.

Data shows that managers training hours (38.54 hours) are lower than for other employees (46.44 hours). This reflects the high efforts of on-the-job training for newly hired operators.

YEARLY APPRAISAL

In 2017, almost all employees (98.39%) from fully consolidated companies have an appraisal interview to discuss their development at least once a year.

VOLUNTARY LEAVERS

In the previous five years, the percentage of voluntary leavers has fluctuated between 3.2 and 3.8. The last two years the percentage increased to reach 5.03% in 2017. As was the case in previous years, significant regional differences can be observed with Asia Pacific reporting the highest turnover rate (10.94%) and Africa (2.30%) and Europe (2.96 %) the lowest. The high turnover rate in Asia Pacific is not unique to Umicore and can be explained by a highly competitive and fluid labour market in some of the growth markets.

VOLUNTARY LEAVERS – GENDER

14.77% of the voluntary leavers are women, which is lower than the 21.92% presence of women in the workforce of fully consolidated companies

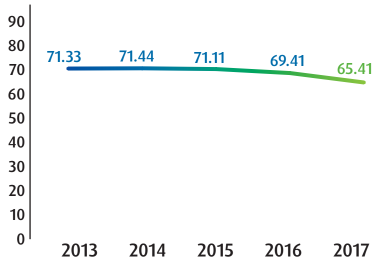
S4 EMPLOYEE RELATIONS

GROUP DATA

	UNIT	2013	2014	2015	2016	2017
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	71.33	71.44	71.11	69.41	**65.41**

EMPLOYEES REPRESENTED BY UNION OR COLLECTIVE LABOUR AGREEMENT (CLA)

% of workforce



REGIONAL DATA

	UNIT	EUROPE	NORTH AMERICA	SOUTH AMERICA	ASIA-PACIFIC	AFRICA	UMICORE GROUP
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	84.23	8.39	92.99	31.44	47.71	**65.41**

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE	UMICORE GROUP
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	49.80	52.84	87.74	76.51	**65.41**

UNION AND COLLECTIVE LABOUR AGREEMENT

In total, 65.41% of Umicore employees belong to a trade union organisation and/or the level of their wages are negotiated through a collective bargaining agreement. On a regional basis, there are significant differences in union representation, with the highest representation in South America and Europe and the lowest in North America and Asia Pacific. The 2017 decrease is mainly attributed to the divestment of Building Products.

SUSTAINABLE DEVELOPMENT AGREEMENT

In 2007, Umicore signed a Sustainable Development Agreement with the International union IndustriALL, which was again renewed in 2015 for a period of four years. In this agreement, Umicore commits to a number of principles including: the banning of child labour and forced labour, recognising the right to its employees to organise themselves and to participate in collective bargaining.

All sites are screened internally each year. This screening showed that none of Umicore's sites demonstrated a particular risk of infringement in any of the principles of the agreement.

S5 CODE OF CONDUCT

Since 2011, Umicore has organised for the first time a systematic Group-wide internal reporting on Code of Conduct issues. In 2017 a total of 14 cases were reported, involving a total of 15 employees. The type of action taken varies from a warning letter to dismissal.

S6 OCCUPATIONAL HEALTH

All consolidated industrial sites where Umicore has operational control are included in the scope of the occupational health reporting. Compared to 2016, data of 11 sites are not reported anymore: Auby, Bray-et-Lû, Viviez (France, Building Products), Vilvoorde (Belgium, Building Products), Lyss-Wiler (Switzerland, Building Products), Gatterstädt, (Germany, Building Products), Bratislava (Slovakia, Building Products), Qingyuan (China, Thin Film Products), Suzhou TM (China, Technical Materials), Port-Elisabeth Young Park (South Africa, Automotive Catalysts). One site was added to the reporting scope: Rayong (Thailand, Automotive Catalysts). This brings the total number of reporting sites to 49.

The information in this note only relates to Umicore's employees. Data on sub-contractors' occupational health are not included. Additional information on Umicore's management approach on occupational health can be found in the corresponding section on pages 66-67.

GROUP DATA

	UNIT	2013	2014	2015	2016	2017
Exposure ratio "all biomarkers aggregated" (1)	%	2.6	1.8	2.3	3.2	**2.7**
Exposure ratio lead (blood) (2)	%	0.9	1.0	0.8	0.5	**0.5**
Exposure ratio arsenic (urine) (2)	%	1.6	1.1	1.3	2.0	**1.0**
Exposure ratio cobalt (urine) (2)	%	10.7	7.3	8.7	9.0	**6.0**
Exposure ratio cadmium (urine) (2)	%	1.0	0.6	1.1	1.4	**0.7**
Exposure ratio nickel (urine) (2)	%	1.1	0.3	1.3	2.0	**1.4**
Exposure ratio indium (blood) (2)	%	–	–	–	11.3	**14.2**
People with platinum salts sensitisation	N°	4	4	0	1	**1**
People with noise induced hearing loss	N°	3	5	2	4	**0**
People with contact dermatitis	N°	2	2	3	0	**2**
People with occupational asthma other than Pt-salts	N°	0	0	1	0	**0**
People with muskulo-skeletal ailments	N°	5	14	7	7	**8**

(1) Ratio between the number of monitoring results exceeding the Umicore target value, defined for relevant hazardous substances, and the total number of monitoring results.
(2) The exposure ratio of a specific metal is defined as the ratio between the number of employees with a biological monitoring result exceeding the Umicore target value for that specific metal and the total number of employees exposed to that metal. The Umicore target values are based upon recent peer reviewed scientific data and regularly re-evaluated in the context of new evidence.

It is Umicore's objective to have by 2020 no exceedance for the biomarkers of exposure for the metals listed below. The following target values have been defined:

— **Cadmium**: 2 micrograms per gram of creatinine in urine.

— **Lead**: 30 micrograms per 100 ml of blood.

— **Cobalt**: 15 micrograms per gram of creatinine.

— **Indium**: 1 microgram per litre of plasma.

— **Arsenic and nickel**: 30 micrograms per gram of creatinine.

— **Platinum salts**: no new cases of platinum salt sensitization.

The number of occupational diseases is the number of employees with a newly-diagnosed occupational disease or occupationally linked symptoms during the reporting cycle.

In 2017, a total of 5,389 biological samples were taken from employees with an occupational exposure to at least one of the metals mentioned above (platinum salts excluded). 145 readings showed a result in excess of the internal target value. This brings the total excess rate to 2.7%, down from 3.2% in 2016. All occupationally exposed employees are regularly monitored by an occupational health physician.

LEAD

Occupational lead exposure represents a potential health risk mainly in the business group Recycling. In total, 7 of the 1,294 occupationally exposed employees exceeded the target value of 30µg/100ml, bringing the excess rate for lead exposure to 0.5%, the same level as in 2016.

The majority of the excess readings were in the lead refinery at the Hoboken site (Belgium, Recycling). Besides a strict respiratory protection policy, an increased ventilation is implemented to further reduce exposures at the workplace. All workers are submitted to a detailed medical surveillance programme.

ARSENIC

Occupational exposure to arsenic is possible in the business groups Energy & Surface Technologies and Recycling. In total, 1 % of the 862 occupationally exposed had an excess reading during 2017 compared to 2.0% in 2016.

All workers occupationally exposed to arsenic are submitted to a medical surveillance programme to closely follow-up their health condition.

COBALT

In total, 1,008 employees are occupationally exposed to cobalt, mainly in the business group Energy & Surface Technologies. The number of employees exceeding the target value was 60, resulting in an excess rate of 6%, down from 9% in 2016. In the business unit Rechargeable Battery Materials, the number of exposed people rose by more than 25%. Despite this, we noticed a significant decrease in excess readings in this business unit from 49 in 2016, down to 20 in 2017.

During the past year, the sites in Cheonan (Korea, Energy & Surface Technologies) invested a lot in improved ventilation systems as well as further improving compliance with respiratory protection programmes and housekeeping measures. Against this, the excess readings at the business units Cobalt & Specialty Materials increased from 28 in 2016 to 40 in 2017. This was mainly caused by increased exposures at the sites in Olen (Belgium, Energy & Surface Technologies) and Fort Saskatchewan (Canada, Energy & Surface Technologies). The business unit has developed an action plan focusing on technical improvements, housekeeping and personal behaviour of workers to again decrease the exposures.

For workers exposed to cobalt, both business units Cobalt & Specialty Materials and Rechargeable Battery Materials have implemented Umicore's occupational health guidance for cobalt, including biological monitoring and medical surveillance.

CADMIUM

Occupational exposure to cadmium represents a potential health risk in the business groups Energy & Surface Technologies and Recycling. Cadmium in urine is an excellent biomarker for lifetime exposure. In 2017, a total of 454 employees had an occupational exposure to cadmium.

Only 3 employees recorded a cadmium in urine reading in excess of the target value, compared to 7 in 2016. This resulted in an excess rate of 0.7% compared to 1.4% in 2016.

NICKEL

The business groups Energy & Surface Technologies and Recycling have occupational exposure to nickel. In 2017, a total of 1,447 employees were exposed to nickel. In 2017, 20 of the exposed workers exceeded the target level resulting in an excess level of 1.4%, compared to 2% in 2016.

A decrease in nickel excess readings was observed for the site in Jiangmen (China, Energy & Surface Technologies) and the sites in Cheonan (Korea, Energy & Surface Technologies), comparable to the decreases in cobalt exposures (see above).

The site in Wickliffe (USA, Energy & Surface Technologies) noticed 14 excess readings. This site only participated for the first time in the biological monitoring evaluation. These results helped the site to further refine their dust management programme including ventilation systems improvements and personal protective equipment programmes.

All workers exposed to nickel are submitted to a medical surveillance programme.

INDIUM

Recently peer reviewed literature clearly demonstrates that occupational exposure to indium and indium tin oxide may result in health effects mainly at the level of the respiratory tract. Umicore contributed to this improved scientific knowledge through its collaboration with the National Institute of Occupational Safety and Health (NIOSH, USA) who conducted a health hazard assessment programme (2012-2016) at the site in Providence (USA, Energy & Surface Technologies). Based upon these scientific data, Umicore defined a target level for indium in plasma of 1 microgram per litre of plasma. Indium in plasma is a biomarker of lifetime exposure.

In 2017, 324 employees were occupationally exposed to indium, of which 14,2% had an excess reading for indium in plasma. These results were all observed at the site in Providence (USA, Energy & Surface Technologies). Over the past years, the NIOSH evaluation confirmed that significant workplace exposure reductions were achieved at the site while also detailed medical surveillance programmes were put in place. At the end of 2017, activities at the site were discontinued.

PLATINUM SALTS

The business groups Catalysis and Recycling have workplaces with exposure to platinum salts.

In 2017, we had 1 newly diagnosed employee with a platinum salt sensitisation at the site in Port Elisabeth (South-Africa, Catalysis). All workers exposed to platinum salts are monitored through an occupational health programme following a Umicore health guideline and regularly checked for platinum salt sensitisation.

OTHER OCCUPATIONAL RELATED DISEASES

In 2017, 2 employees were diagnosed with an occupationally induced contact dermatitis and 8 developed a musculoskeletal disorder due to their occupation. All people concerned are followed by an occupational health physician.

In 2017, the medical departments of the Umicore sites in Belgium together with the human resources organisation developed and implemented a programme to raise awareness on burn-out. Over the past years, Umicore has been confronted with several burn-out cases which led to long-term sickness periods with impact on both the individual and the organisation. The action plan consists of primary prevention of burn-out combined with early recognition of symptoms and case management support. Concrete actions included awareness campaigns via leaflets, workshops and information sessions and training for supervisors. Similar programmes have been implemented at Umicore sites in other countries such as Germany.

S7 OCCUPATIONAL SAFETY

In total for 2017, 91 consolidated sites, of which 54 are industrial sites, are included in the safety reporting. This number also includes commercial offices but excludes the sites of the divested business unit Building Products.

Additional information on Umicore's management approach on safety can be found in the corresponding section on page 66.

The Umicore information in this note only relates to Umicore's employees. Data on sub-contractors' occupational safety are reported separately. It is Umicore's objective to have zero lost time accidents by 2020.

GROUP DATA

	UNIT	2013	2014	2015	2016	2017
Fatal accidents	N°	0	2	0	1	**0**
Fatal accidents sub-contractors	N°	0	0	0	0	**0**
Lost Time Accidents (LTA)	N°	35	37	47	59	**51**
Lost Time Accidents (LTA) sub-contractors	N°	22	11	9	15	**22**
LTA frequency rate		2.08	2.16	2.66	3.34	**3.01**
Calendar days lost	N°	1,726	16,122	2,134	9,848	**1,590**
LTA severity rate		0.10	0.94	0.12	0.56	**0.09**
Recordable Injuries (RI)	N°	146	112	148	127	**138**
Recordable Injuries frequency rate		8.67	6.53	8.38	6.78	**8.15**
Ratio N° of sites with no LTA/total N° of sites reporting	%	79	84	84	84	**84**
Sites OHSAS 18001 certified	%	32.8	40.0	36.6	41.7	**51.0**

Umicore employee: a person belonging to Umicore's total workforce. A Umicore employee can be a full-time, part-time or temporary employee.

Sub-contractor: a person not belonging to Umicore's total workforce, providing services to Umicore in one of its premises under terms specified in a contract.

Fatal accident: a work-related accident with fatal outcome.

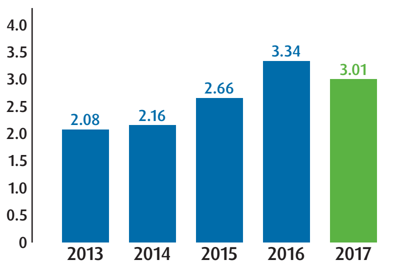
Lost time accident (LTA): a work-related injury resulting in more than one shift being lost from work.

Recordable injury (RI): a work-related injury resulting in more than one first aid treatment or in a modified working programme but excluding lost time accidents.

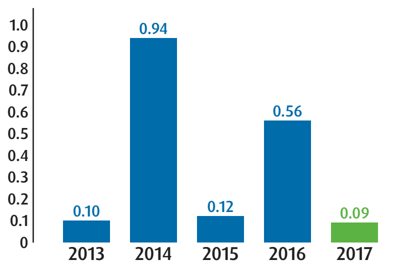
Frequency rate: number of lost time accidents per million hours worked.

Severity rate: number of lost calendar days due to a lost time accident per thousand hours worked. Accidents to and from work are not part of the scope of the safety data.

FREQUENCY RATE



SEVERITY RATE



REGIONAL DATA

	UNIT	EUROPE	NORTH AMERICA	SOUTH AMERICA	ASIA-PACIFIC	AFRICA	UMICORE GROUP
Lost Time Accidents (LTA)	N°	43	3	0	5	0	**51**

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE	UMICORE GROUP
Fatal accidents	N°	0	0	0	0	**0**
Lost Time Accidents (LTA)	N°	4	12	34	1	**51**
Calendar days lost	N°	106	320	1,157	7	**1,590**

In 2017, a total number of 51 lost time accidents were recorded, compared to 59 in 2016. This resulted in a frequency rate of 3.01, down from 3.34 in 2016, and in a severity rate of 0.09. The number of reported recordable injuries increased from 127 in 2016 to 138 in 2017. The recordable injury frequency rate for 2017 was 8.15 compared to 6.78 in 2016.

A total of 22 lost time accidents were registered for contractors compared to 15 in 2016.

During 2017, 84% of the reporting sites operated without a lost time accident, the same percentage as in 2016. 51% of the sites were certified using the occupational health and safety management system OHSAS 18001, compared to 42% in 2016.

43 lost time accidents, or 84%, of the total number of lost time accidents, occurred in Europe. Of these, 30 lost time accidents occurred on Belgian sites and 10 on German sites. The Americas accounted for 3 accidents and 5 accidents happened on Asia-Pacific sites.

In 2017, the business group **Catalysis** recorded 4 lost time accidents, all in the Automotive Catalysts business unit. Besides continued technical improvements, the business unit Automotive Catalysts continues the SafeStart® behavioural safety programme in all its operating sites. This program focuses on both habitual and unintentional safety behaviour. All Automotive Catalysts production plants are required to be certified against the OHSAS 18001 management system. At year-end, the sites in Port Elizabeth (South Africa), Tsukuba and Himeji (Japan) had operated over 5 years without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site. The site in Rayong (Thailand) recorded more than 3 years (including the site construction) without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site.

The business group **Energy & Surface Technologies** recorded 12 lost time accidents, of which 4 were in the business unit Cobalt & Specialty Materials, 4 in the business unit Rechargeable Battery Materials, 3 in the business unit Electro-Optical Materials and 1 in the business unit Electroplating. The increase in number of lost time accidents in the business unit Rechargeable Battery Materials falls together with the increase of newly hired employees at the site in Cheonan (Korea) as part of their expansion programs. The business unit has taken proper action to reinforce its in-house developed safety leadership program based on a behaviour observation and risk intervention techniques. The business unit Cobalt & Specialty Materials continued a similar risk awareness and competency programme in several of its sites. The site in Dundee (UK) has been recognised for its excellent and sustained safety performance, recording at least 10 years with no lost time accident or recordable injury to Umicore staff and no lost time accident to contractors. Beijing (China) and Tsukuba (Japan) operated more than 5 years without lost time accident and recordable injury to Umicore staff and lost time accidents to contractors. The site in Balzers (Liechtenstein) operated more than 3 years without lost time accident and recordable injury to Umicore staff and lost time accident to contractors.

The business group **Recycling** had 34 lost time accidents. The business unit Precious Metal Refining recorded a disappointing safety performance with 23 lost time accidents. In 2017, to reverse the poor safety performance, the site management has launched the Safety@ Precious Metals Refining campaign. Main pillars consist of passion for safety, caring for each other and teamwork. The aim is to develop and maintain a safety culture where everybody spontaneously cares for his or her safety as well as their colleague's safety. The campaign is supported by practical actions in which all employees participate. The business unit Jewellery & Industrial Metals recorded 6 lost time accidents, while the business unit Technical Materials had 4 lost time accidents. At the end of 2017, the site in Vicenza (Italy) operated more than 5 years without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site.

One lost time accident occurred in general services and corporate offices including Group Research & Development.

S8 PROCESS SAFETY

In 2017, Umicore's Group-wide process safety project was finalized. Main results included the approval and publication of all the process safety standards and guidelines, the development of a tailor-made software to perform process safety risk analyses, and process safety assessments of all the critical sites. With the closing of this project, process safety has become a structural Group EHS management activity with the main objectives to follow up on and support the sites with the implementation of the process safety management elements, to ensure the quality of process risk assessments and to animate a Group-wide process safety network. New initiatives in this context are the full integration of process safety into the EHS compliance audit program and the development of a dedicated three-day HAZOP leader training, with first training sessions already given in Brazil and Belgium.

Group-wide leading and lagging process safety indicators have been defined for future reporting.

VALUE CHAIN STATEMENTS

Contents

VALUE CHAIN STATEMENTS

Value chain statements

V1 SCOPE OF THE VALUE CHAIN STATEMENTS

The value chain and society theme focuses on potential impacts on society that we have as a company through our activities, products and services. For reporting, all entities of the group are considered. While we focus primarily on our activities directly linked to clean mobility and recycling, other initiatives targeting suppliers, customers or society in general are being tracked and appropriately reported, be it via communication such as this annual report or via other specific communication channels.

V2 CRITICAL RAW MATERIALS

Securing adequate volumes of raw materials is an essential factor in the ongoing viability of our product and service offering and in being able to achieve our Horizon 2020 growth objectives. The risks and opportunities vary considerably from one business unit to another and for this reason we have taken a decentralised approach to risk and opportunity management. We have determined to seek a competitive edge in terms of our access to critical raw materials and in our ability to secure these raw materials in an ethical and sustainable way.

SCOPE

The indicator presented covers all activities that were still part of Umicore on 31 December 2017, except for the Technical Materials activities, for which Umicore is assessing strategic options.

The reporting is done according to the business units reported in group structure on page 10.

IDENTIFICATION OF THE CRITICAL RAW MATERIALS

In 2016, each business unit was asked to follow a 3-step process to identify the raw materials that are critical in achieving the Horizon 2020 objectives.

The process consisted of the following elements:

- Definition of the criteria applicable to the raw material specific to the business unit's activity;
- Identification of the raw materials with a high probability of restrictions in supply, taking the selected criteria into account;
- Calculation of the impact on the Horizon 2020 objectives of the supply risk identified.

Twenty-one supply criteria, covering various aspects of sustainability, have been offered to the business units as input into the mapping. The criteria can be clustered in the following themes:

- EHS or regulatory aspects of the raw material
- Concentration in the market or restrictions in the country of origin
- Ethical aspects and potential conflicts with the code of conduct linked to the raw material
- Unavailability due to end-of-life of the mineral source
- Physical constraints at origin

As supply risks and opportunities can change the identification of the critical raw materials is a dynamic process. In 2017 8 of the 9 business units have updated their mapping. The optics and electronics activities from the former Thin Film Product have been integrated, as of January 2018, into the Electro-Optic Materials business unit, which has a process for criticality assessment in place. Therefore, we considered this as not covered yet.

MITIGATION ACTIONS

For those materials that have been identified as critical it is particularly important to define actions to mitigate the risk of supply disruption.

Mitigation actions can vary depending on the materials and the position of the business unit in the market. Action plans and dedicated mitigation measures must be in line with the identified risks and opportunities and are therefore regularly updated. The reviewing frequency and process vary from business unit to business unit depending on the specific supply conditions.

The approach on cobalt sourcing further evolved in 2017. Umicore uses cobalt in materials that go into rechargeable batteries, tools, catalysts and several other applications.

The Sustainable Procurement Framework for Cobalt that covers Umicore's cobalt purchases worldwide was adapted in 2017 to be fully aligned with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals and this constitutes a first in the cobalt industry. The main effect of this alignment lies in the communication of risks in our supply chain, which will now be communicated on our website and in the compliance report. Umicore obtained, for the third year in a row, third party assurance from PwC that its cobalt purchases in 2017 are carried out in line with the conditions set out in the revised framework. The Umicore Responsible global supply chain of minerals from conflict-affected and high-risk areas has also been revised to include cobalt in the scope of the document.

As the focus on sustainable supply of cobalt further increased in 2017 Umicore's approach continued to provide welcomed risk mitigation in this regard.

In the context of the developments in rechargeable battery materials, Umicore has been looking at ways to further promote its actions on sustainable supply both internally and externally. The function of Senior Vice-President in charge of the sustainability aspects of the value chain for rechargeable batteries has been created and is fulfilled since 1 January 2018. The focus lies particularly on cobalt. The function entails representing Umicore at various high-level institutions, including as Chairman of the Cobalt Institute, in the steering committee of the "Global Battery Alliance" which was formed under the auspices of the World Economic Forum and more generally being a spokesman for sustainability for our RBM and CSM businesses. The function also includes supporting initiatives that promote the collection and recycling of cobalt-containing devices and interacting with NGOs on improving health and safety for sustainable cobalt mining in Africa.

Created in 2016 the Umicore internal "Metals and minerals" group has now been running for a full year. This group of corporate services and several business units aims at sharing group practices around sustainable supply. Next to the activities around cobalt, the approach for conflict minerals and other upcoming issues are being discussed. Other topics include the identification of critical raw materials and mitigation actions.

V3 CONFLICT MINERALS

On 1 January 2021, the Conflict Minerals Regulation will come into full force across the EU. This law is similar in scope to the US Dodd Frank Act of 2012. The new law aims to help stem the trade in four minerals – tin, tantalum, tungsten and gold – that sometimes finance armed conflict or are mined using forced labour.

In addition to existing policies and charters such as the Umicore Code of Conduct, Human Rights Policy and Sustainable Procurement Charter, Umicore also has a specific policy regarding "Responsible global supply chain of minerals from conflict-affected and high-risk areas".

In 2017, Umicore continued to ensure that its operations with a production of gold are certified as conflict-free. Increasingly Umicore customers request such a guarantee and we provide these customers with the necessary documentation to assure the conflict-free status of our products. The Umicore internal "Metals and Minerals" working group streamlines and optimises the efforts required for this growing customer demand through best practices sharing.

The Precious Metals Refining operations in Hoboken and Guarulhos are certified as "conflict-free smelters" by the London Bullion Market Association (LBMA). In 2018, UPMR Hoboken will be submitted to an LBMA conflict-free silver audit of its 2017 activities for the first time. Such audits are voluntary for 2017, but will be mandatory for the LBMA accredited silver refiners in the future.

The Jewellery & Industrial Metals operations in Pforzheim, Vienna and Bangkok are certified as part of the Responsible Jewellery Council's (RJC) Chain of Custody program. The Jewelry & Industrial Metals sites of Pforzheim is also accredited by the LBMA as Good Delivery refiner. Although platinum does not belong to the list of conflict minerals, the business unit Jewelry & Industrial Metals has passed the audit for responsible platinum sourcing by the RJC. The sites of Pforzheim and Vienna are also certified for palladium and rhodium. Both the RJC Chain of Custody and LBMA Good Delivery accreditations qualify the accredited sites for listing in the Responsible Minerals Initiative conformant smelters and refiners (formerly CFSI (Conflict Free Sourcing Initiative) Conflict Free Smelter List).

The Responsible Minerals Initiative is used by many customers to streamline the process to guarantee conflict-free products in complex supply chains. A typical example is the automotive industry, where a structure has been created to assure that all individual elements of a car can be certified as not containing conflict minerals sourced from non-certified origins. This procedure is not a ban on those materials (tin, tantalum, tungsten and gold), but is a process to create transparency in the supply chain to ensure they can source conflict-free minerals. Other industries such as the electronics industry implement the same or similar processes.

V4 INDIRECT PROCUREMENT

While the metal-bearing raw materials are purchased directly by the business units (direct procurement, see notes V2 and V3 for specific sustainable supply related actions), Umicore's purchasing and transportation teams worldwide take care of the energy and other goods and services which is referred to as indirect procurement.

SCOPE

The indicators presented are based on 2017 data from our Procurement & Transportation department covering indirect procurement for Belgium and Germany. This represents roughly 10% of total spend.

ASSESSMENT OF SUPPLIERS

Sustainability performance of specific suppliers is assessed by EcoVadis, a well-known collaborative platform providing Supplier Sustainability Ratings.

52 assessment scores were made available to the team in 2017. The total number of scores received since 2011 amounts to 350. This represents the number of unique suppliers that have been assessed since 2011 and does not consider the regular re-assessment of a supplier. This number is very similar to the 2016 figure of 349 and shows that the most critical suppliers have now been covered.

Since 2017, a "quick scan" based on criteria such as size, geographical location and type of product or service provided is systematically used for new suppliers. This tool determines the need for an EcoVadis assessment.

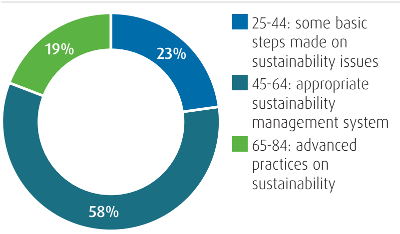
AVERAGE SCORE OF SUPPLIERS BY TOPIC

The proportion of suppliers with a score of 45 or higher, so-called suppliers "engaged in CSR" (Corporate Social Responsibility), has increased significantly to 77% compared to 62% in 2016.

None of the scores received in 2017 are indicating a "high risk", whereas the number of "medium opportunity" suppliers is growing. This indicates that more and more suppliers are organising to create vision and transparency on CSR.

In September 2017, the Umicore Group was re-evaluated by Ecovadis and was scored 68, which confirms the gold recognition level. This result includes our company among the top 5% performers evaluated by EcoVadis.

SUPPLIERS' SCORE IN ECOVADIS ASSESSMENT



	AVERAGE SCORE
Environmental	57.8
Labour practices	54.3
Fair business practices	48.2
Suppliers	48.2
Overall	**53.3**

More information on Umicore's relationship with suppliers can be found in the Stakeholder engagement section on page 53 and in the performance review on pages 26-27.

V5 PRODUCTS AND SERVICES

RESOURCE EFFICIENCY

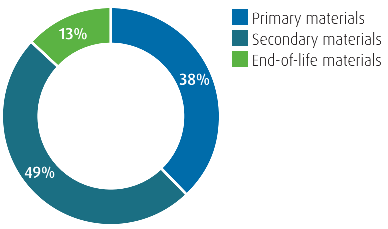
Primary raw materials: are those materials that have a direct relation to their first lifetime hereby excluding streams of by-products.

Secondary raw materials: are by-products of primary materials streams.

End-of-life materials: are those materials that have ended at least a first life cycle and will be re-processed through recycling leading to a second, third...life of the substance.

Incoming materials are regarded as primary by default if their origin is unknown. The collected data are expressed in terms of total tonnage of incoming material.

RESOURCE EFFICIENCY



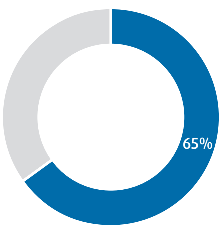
In 2017, 62% of the materials were from end-of-life or secondary origin while 38% were of primary origin, compared to 55% and 45% in 2016, respectively. The shift towards more secondary and end-of-life raw materials is mainly due to the divestment of the business unit Building Products and due to the effect of the capacity increase in the Hoboken smelter.

PRODUCTS AND SERVICES CONTRIBUTING TO SPECIFIC SUSTAINABILITY ASPECTS

Our primary focus in terms of sustainable products and services is to leverage those activities that provide solutions to the megatrends of clean mobility and resource scarcity. For more information please see the Value chain and society performance discussion on pages 26-27.

We developed an indicator to underline our focus on clean mobility and recycling. In 2017, the revenues of those activities that deliver products or services that are directly linked to one of these two megatrends was 64.6% of 2017 Group revenues up from 62% in 2016. The increase is the result of a higher activity both in recycling and clean mobility. As we work towards our Horizon 2020 goals and bring even more focus to our business, we would expect this percentage to continue to increase. It should be noted that many of the materials and services making up the remaining 35.4% of revenues provide answers to specific societal needs such as improved connectivity (materials for high quality glass, displays) or reduced energy consumption (materials for use in energy efficient lighting such as LEDs).

REVENUES FROM CLEAN MOBILITY AND RECYCLING



Business units continue to develop specific solutions for sustainability aspects of our products and their applications in close relationship with customers. Typical subjects dealt with in such developments are the reduction of risks related to the use of products, reduction of the hazard of products or a higher material efficiency in the delivery or the use of our products.

MANAGEMENT OF PRODUCT REGULATION

Worldwide, changes to existing product related legislation as well as the introduction of new legislation might impact our business. Although the European REACH regulation is still the most relevant one for Umicore, the Korean-REACH is gaining importance. Two dossiers will be submitted for the June 2018 registration deadline.

Umicore monitors closely all changes in interpretation as well as guidance documents which might affect its REACH implementation strategy. Umicore is actively involved in industry association working groups to make sure a consistent approach is followed and that the metal specifics are understood by the regulators and the companies.

In 2017, as part of regular maintenance, 14 REACH dossiers were updated among others to increase the tonnage band, reply to ECHA requests and to include with new information on composition, uses or Chemical Safety Report. In preparation of the third phase of the EU REACH regulation, 115 new registrations were submitted. Some 89 dossiers still need to be submitted by 31 May 2018. For most of them, submission dossiers are elaborated as part of the work done in the industry working group consortia.

While the regulatory landscape may shift in the future, only a few of Umicore's substances feature today on the "Candidate List" for potential REACH authorisation. The placing of a substance on the REACH "Candidate List" is designed as a first step in subjecting that substance to robust and detailed scientific evaluation of risk as a basis for its continued use or substitution if economically and technically feasible alternatives to that substance exist.

Umicore further expanded its Safety Data Sheets data base. The data base now contains 4,455 products and has Safety Data Sheets available for 110 countries in 41 languages.

V6 DONATIONS

SCOPE

The indicators presented are based on data from fully consolidated companies for a full year with the exception of the December acquisition of Haldor Topsoe.

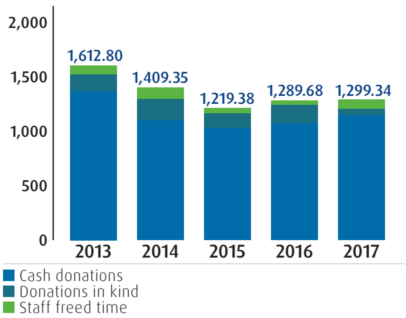
The historical numbers (2016 and before) were not restated.

GROUP DATA

	UNIT	2013	2014	2015	2016	2017
Cash donations	Thousands of Euros	1,373.82	1,103.47	1,034.91	1,078.03	1,151.46
Donations in kind	Thousands of Euros	152.27	200.88	135.11	167.47	60.47
Staff freed time	Thousands of Euros	86.71	104.99	49.36	44.17	87.40
Total donations	**Thousands of Euros**	**1,612.80**	**1,409.35**	**1,219.38**	**1,289.68**	**1,299.34**

DONATIONS

Thousands of Euros



Each business unit is expected to allocate an annual budget that provides sufficient donations and sponsorship support to each site's community engagement programme. By way of guidance, this budget should equate to an amount corresponding to a third of a percent of the business unit's average annual consolidated recurring EBIT (i.e. excluding associates) for the three previous years.

Donations are subdivided into cash donations, donations in kind and staff time. Group level donations are coordinated by a Committee reporting to the CEO.

REGIONAL DATA

	UNIT	EUROPE	NORTH AMERICA	SOUTH AMERICA	ASIA-PACIFIC	AFRICA	UMICORE GROUP
Total donations	Thousands of Euros	1,027.53	133.12	35.07	97.20	6.42	1,299.34

BUSINESS GROUP DATA

	UNIT	CATALYSIS	ENERGY & SURFACE TECHNOLOGIES	RECYCLING	CORPORATE	UMICORE GROUP
Total donations	Thousands of Euros	148.73	353.24	302.35	495.03	1,299.34

In 2017, Umicore contributed a total of € 1,299 thousand in donations. For the business units, the total amount of € 804 thousand is in line with the guidance of approximately one third of one percent of each unit's average annual recurring consolidated EBIT for the past three years. Additional group level donations were made for an amount of € 495 thousand.

Most of the donations of the units go to charity events close to their sites, in support of the local community. However, some business unit headquarters also support charity projects on other continents. At Group level, the donations have a global reach. The main areas for Group level donations in 2017 included support for two major UNICEF educational projects in Madagascar and in India, three projects coordinated by Entrepreneurs for Entrepreneurs (in Mali, Ecuador and Togo) and support for student sustainable mobility projects.

STATUTORY AUDITOR'S REPORT TO THE GENERAL SHAREHOLDERS' MEETING OF THE COMPANY UMICORE ON THE CONSOLIDATED ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2017

We present to you our statutory auditor's report in the context of our statutory audit of the consolidated accounts of Umicore (the "Company") and its subsidiaries (jointly "the Group"). This report includes our report on the audit of the consolidated accounts, as well as the report on other legal and regulatory requirements. These reports form part of an integrated whole and are indivisible.

We have been appointed as statutory auditor by the general shareholders' meeting of 25 April 2017, following the proposal formulated by the board of directors and following the recommendation by the audit committee and the proposal formulated by the workers' council. Our mandate will expire on the date of the general shareholders' meeting which will deliberate on the consolidated accounts for the year ended 31 December 2019. We started the statutory audit of the consolidated accounts of Umicore before 1993.

Report on the audit of the consolidated accounts

Unqualified opinion

We have performed the statutory audit of the Group's consolidated accounts, which comprise the consolidated balance sheet as at 31 December 2017, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flow for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information, and which is characterised by a consolidated balance sheet total of EUR 5.115,7 million and a profit for the year (Group share) of EUR 211,9 million.

In our opinion, the consolidated accounts give a true and fair view of the Group's net equity and consolidated balance sheet as at 31 December 2017, 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 unqualified opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the "*Statutory auditor's responsibilities for the audit of the consolidated accounts*" section of our report. We have fulfilled our ethical responsibilities in accordance with the ethical requirements that are relevant to our audit of the consolidated accounts in Belgium, including the requirements related to independence.

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

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

Key audit matters

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

Accounting treatment of hedging transactions

Key audit matter

The companies of the Umicore Group use a number of different derivative financial instruments to hedge against currency, commodity price and interest rate risks associated with ordinary business activities. Management's hedging policy is documented in corresponding internal guidelines and serves as the basis for these transactions. Currency and commodity price risks arise primarily from revenue, sales and procurement transactions (in particular commodities). The interest rate hedge is entered into for the purpose of achieving a sensible ratio of variable and fixed interest rate exposures.

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The cash flow hedges do meet the criteria for hedge accounting under IAS 39, consequently the effective portion of the changes in fair value of the underlying derivative financial instruments are recognized over the duration of the hedging relationships directly in equity until the maturity of the hedged cash flows. As of the balance sheet date, a cumulative EUR 29,5 million were recognized outside profit or loss as expenses and income before taxes as disclosed in note F 33.1.

The transactional hedges do not meet the criteria for hedge accounting under IAS 39 as disclosed in the accounting policies under note F 2.21.1. The related derivative financial instruments are recognized through the income statement as trading instruments while a "lower of cost or market" approach is applied on the physical future sales and purchase commitments with customers and suppliers.

We believed that these matters were of particular importance due to the high complexity and number of transactions as well as the extensive accounting and reporting requirements under IAS 39.

How our audit addressed the key audit matter

As part of our audit and with the help of our internal treasury experts, we assessed the contractual and financial parameters and reviewed the accounting treatment, including the effects on equity and profit or loss, of the various hedging transactions. Together with these experts, we also assessed the Company's internal control system with regard to derivative financial instruments, including the internal activities to monitor compliance with the hedging policy. Furthermore, we used market data to review the measurement method applied to measure the fair value of the financial instruments. In addition, we obtained bank confirmations in order to assess the completeness of and to examine the fair values of the recorded hedging transactions. With regard to the expected cash flows and the assessment of the effectiveness of hedges, we essentially reviewed the prospective testing. We verified that hedges were accounted for and measured in accordance with the provisions of IAS 39. In view of the transactional hedges we audited the accuracy and completeness of the related derivative financial instruments recognized through the income statement as trading instruments via external confirmations and the review of the measurement method applied to measure the fair value via market data. Moreover the "lower of cost or market" approach applied on the physical future sales and purchase commitments with customers and suppliers has been audited on a sample basis.

Our findings

We found the key assumptions and hedge accounting documentation were supported by available evidence. The measurement methods applied for the fair value determination were considered as acceptable and the disclosures in notes F 33.1 and F. 33.2 are appropriate.

Acquisitions and disposals

Key audit matter

Umicore engaged in a number of acquisition and disposal transactions during 2017. The transactions that were most significant to the consolidated accounts were the Haldor Topsoe acquisition and the disposal of the Building Product activities.

The acquisition of Haldor Topsoe's heavy duty diesel and stationary catalyst business was significant to our audit due to the complexity and significant judgments and assumptions involved in the provisional purchase price allocation for EUR 133 million, mainly in relation to step downs on tangible assets, the recognition of intangible assets and the remaining goodwill balance amounting to EUR 3,8 million. As described in note F 8 it regards a provisional purchase price allocation under IFRS 3. On 29 September, Umicore completed the sale of its Building Product activities. We considered the accounting treatment in the consolidated accounts of this event as a key audit matter because of its size, complexity and the judgment required in calculating some of the amounts included in the loss on disposal.

How our audit addressed the key audit matter

With respect to the accounting for the Haldor Topsoe's acquisition described in note F 8, we have, amongst others, read the asset and share purchase agreements, confirming the correct accounting treatment has been applied and appropriate disclosure has been made taking into account that it regards a provisional purchase price allocation; assessed the valuation and accounting for the consideration payable and traced payments to bank statements; audited the identification and fair valuation of the assets and liabilities the Group acquired including any fair value adjustments. In doing so, we have utilized valuation specialists to assist with the audit of the multiples applied to determine fair values. We also assessed the adequacy of the disclosures in note F 8. As the purchase price allocation is provisional as of 31 December 2017, the Group shall retrospectively adjust the provisional amounts recognised at the acquisition date to reflect the results of the final purchase price allocation within the measurement period of one year after the acquisition date.

We tested the loss on the disposal of the Building Product activities by reconciling the consideration to the share purchase agreement (SPA) and bank statements and by verifying the net asset disposed to underlying accounting records. In addition we verified whether the loss on the disposal was calculated in accordance with the relevant clauses of the SPA. We also evaluated the adequacy of the disclosure (note F 42) of this disposal in the consolidated accounts.

Our findings

We found the methodologies and the assumptions applied in respect of the provisional purchase price allocation of the Haldor Topsoe acquisition to be in line with our expectations, and the acquisition accounting and related disclosure in line with the share purchase agreement.
In respect of the Building Product disposal, we concluded positively on the accounting treatment of the loss of the disposal supported by the share purchase agreement and our audit of the determination of the disposed net assets of the Building Product activities. We consider the disclosure on the disposal as appropriate.

Uncertain tax positions

Key audit matter

Income tax was significant to our audit because the assessment process is complex and the amounts involved are material to the consolidated accounts as a whole. The company has extensive international operations and is present in many different tax and legal jurisdictions where transfer pricing assessments could be challenged by the tax authorities in the different countries. The accounting for these uncertain tax positions comprise significant judgement by management mainly in the area whether to recognise these uncertain tax positions and to adequately determine (deferred) tax assets and liabilities. Referring to note F 3.6. management performed a detailed assessment of uncertain tax positions which resulted in provisions recorded for these uncertainties.

How our audit addressed the key audit matter

We have tested the completeness and accuracy of the amounts reported for current and deferred tax, including the assessment of disputes with tax authorities, based on the developments in 2017. In this area our audit procedures included, amongst others, assessment of correspondence with the relevant tax authorities. In addition we have evaluated the tax opinions of management's experts which have been obtained by Umicore on the respective cases. We also involved our local component auditors including tax specialists in those components determined to be the regions with significant tax or other risks. In respect of deferred tax assets, we analysed and tested management's assumptions used to determine the probability that deferred tax assets recognized in the balance sheet will be recovered through taxable income in the countries where the deferred tax assets originated and during the periods when the deferred tax assets become deductible. During our procedures, we use amongst others budgets, forecasts and tax laws.

Our findings

We found the judgements in respect of the Group's position on uncertain tax items to be consistent and in line with our expectations. Uncertainties have been properly taken into account when assessing the (deferred) tax liabilities and assets positions in the consolidated accounts.

Post-employment benefits and pension accounting

Key audit matter

As described in note F 2.16 (accounting policies, employee benefits) and note F27 (provisions for employee benefits) to the consolidated accounts, the employee benefits are split in five different categories, amongst which post-employment defined benefit schemes are included. Referring to note F4 (Critical accounting estimates and judgements), the post-employment defined benefit obligation is seen as a critical accounting estimate by management. The group has several post-employment defined benefit schemes in place in resulting in a net liability amounting to EUR 295,8 million at 31 December 2017.

The procedures over the post-employment defined benefit provisions were significant to our audit because the assessment process is complex, involves significant management judgement and is based on actuarial assumptions such as discount rate, compensation increase, price inflation expectations and pension age increase rate assumptions, as disclosed in note F27 to the consolidated accounts.

How our audit addressed the key audit matter

In testing the post-employment defined benefit provision, we –assisted by our actuarial experts- have evaluated management's actuarial assumptions and valuation methodologies and we assessed the objectivity and competence of the company's external actuaries used for the calculation of the post-employment benefit provisions. We have performed independent testing of the assumptions used by management and prepared by the company's external actuaries, and compared those assumptions to the published actuarial tables, amongst other. Furthermore, we have also assessed the adequacy of the company's disclosure on assumptions in note F27 of the consolidated accounts.

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Our findings

Based on the evidence obtained, we found that the assumptions used by management in the valuation of the post-employment benefit provision were within a range considered to be reasonable using an internally developed range of acceptable assumptions for valuing pension liabilities, based on our view of various macro economic indicators.

Alternative performance measures EBIT, EBITDA and non-recurring results

Key audit matter

For the analysis of the segment information and management information, alternative performance measures as "EBITDA" (earnings before interests, taxes, depreciation and amortization) and "EBIT" (earnings before interests and taxes) are used, and adjusted for non-recurring items. The non-recurring items that have been adjusted to EBITDA and EBIT are respectively EUR 65,5 million and EUR 67 million as disclosed in note F 9. The adjusted EBIT(DA), or recurring EBIT(DA) is used for capital market communication as core financial performance indicator. Furthermore, the recurring EBIT is used in one of the performance-related remuneration indicators for Umicore's employees. The non-recurring items were significant to our audit given the size and nature of the adjustment as these are based on Umicore's internal accounting guidelines as disclosed in the accounting policies and there is a risk of bias in management's judgement.

How our audit addressed the key audit matter

We checked the calculation of the underlying EBITDA and EBIT and we used our professional scepticism in order to determine the non-recurring items identified by management. Note F9 details the non-recurring items, for which we have determined, through examination of the audit evidence obtained in relation to the underlying transactions and discussions with management, if the non-recurring items have been classified in accordance with the definition included in the accounting policies. We furthermore assessed that the non-recurring items adjusting the EBIT(DA), have been consistently applied in the different disclosures to the consolidated accounts.

Our findings

We consider that there is adequate disclosure of the nature and amounts of non-recurring results in accordance with the definition as described in Note F9, and determined that the definition of these non-recurring results is consistently applied.

Responsibilities of the board of directors for the consolidated accounts

The board of directors is responsible for the preparation of consolidated accounts 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 the board of directors determines is necessary to enable the preparation of consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated accounts, 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 accounts

Our objectives are to obtain reasonable assurance about whether the consolidated accounts 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 users taken on the basis of these consolidated accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated accounts, 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 control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board of directors.

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- Conclude on the appropriateness of the 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 statutory auditor's report to the related disclosures in the consolidated accounts 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 statutory auditor's 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 accounts, including the disclosures, and whether the consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated accounts. 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 and the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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

From the matters communicated with the board of directors and the audit committee, we determine those matters that were of most significance in the audit of the consolidated accounts of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on 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 directors' report on the consolidated accounts.

Statutory auditor's responsibilities

In the context of our mandate and in accordance with the Belgian standard (revised) which is complementary to the International Standards on Auditing (ISAs) as applicable in Belgium, our responsibility is to verify, in all material respects, the directors' report on the consolidated accounts and to report on these matters.

Aspects related to the directors' report on the consolidated accounts

In our opinion, after having performed specific procedures in relation to the directors' report on the consolidated accounts, this report is consistent with the consolidated accounts for the year under audit, and it is prepared in accordance with article 119 of the Companies Code.

In the context of our audit of the consolidated accounts, we are also responsible for considering, in particular based on the knowledge acquired resulting from the audit, whether the directors' report on the consolidated accounts is materially misstated or contains information which is inadequately disclosed or otherwise misleading. In light of the procedures we have performed, there are no material misstatements we have to report to you. We do not express any form of assurance conclusion on this directors' report.

The non-financial information is included in the directors' report on the consolidated accounts. The Company has prepared the non-financial information, based on Global Reporting Initiative (GRI) Standards. However, in this report, we do not express an opinion as to whether the non-financial information has been prepared, in all material aspects, in accordance with the Global Reporting Initiative (GRI) Standards as disclosed in the consolidated accounts. Furthermore, we do not express assurance on individual elements included in this non-financial information.

Statement related to independence

- We did not provide services which are incompatible with the statutory audit of the consolidated accounts and we remained independent of the Company in the course of our mandate.

- The fees for additional services which are compatible with the statutory audit of the consolidated accounts referred to in article 134 of the Companies Code are correctly disclosed and itemized in the notes to the consolidated accounts.

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Other statements

- This report is consistent with the additional report to the audit committee referred to in article 526 bis §6 4° of the Companies Code referring to article 11 of Regulation (EU) N° 537/2014.

Sint-Stevens-Woluwe, 16 March 2018

The statutory auditor
PwC Bedrijfsrevisoren bcvba / Reviseurs d'Entreprises sccrl
Represented by

Kurt Cappoen
Registered Auditor

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LIMITED ASSURANCE RAPPORT VAN DE ONAFHANKELIJKE AUDITOR MET BETREKKING TOT DE SOCIALE VERKLARINGEN, DE MILIEUVERKLARINGEN EN DE VERKLARINGEN OVER DE WAARDEKETEN IN HET JAARVERSLAG 2017 VAN UMICORE EN HAAR DOCHTERONDERNEMINGEN

Dit rapport is opgesteld in overeenstemming met de voorwaarden opgenomen in onze opdrachtbrief gedateerd op 29 juni 2017, waarbij we werden aangesteld om een onafhankelijk limited assurance rapport uit te brengen over de Sociale verklaringen, de Milieuverklaringen en de verklaringen over de Waardeketen over het jaar afgesloten op 31 december 2017 in het bijgevoegd Jaarverslag 2017 van Umicore en haar dochterondernemingen (het "Verslag").

Verantwoordelijkheid van de Raad van Bestuur

De Raad van Bestuur van Umicore ("de Vennootschap") is verantwoordelijk voor het opstellen van de informatie en de gegevens in de Sociale verklaringen, de Milieuverklaringen en de verklaringen over de Waardeketen die opgenomen zijn in het Jaarverslag van Umicore en haar dochterondernemingen, alsook voor de verklaring dat het Verslag is opgesteld in overeenstemming met de vereisten van het "Global Reporting Initiative" ("GRI") Standards - Core, uiteengezet op bladzijden 178 tot 209 (de "Informatie Over Het Object Van Onderzoek"), in overeenstemming met de criteria die in de Sociale verklaringen, de Milieuverklaringen en de verklaringen over de Waardeketen beschreven staan (de "Criteria").

Deze verantwoordelijkheid bevat de selectie en toepassing van de meest gepaste methodes om de "Informatie Over Het Object Van Onderzoek" op te stellen, alsook de betrouwbaarheid van de onderliggende informatie en het gebruik van assumpties en schattingen voor de opmaak van individuele toelichtingen inzake duurzaamheid, die redelijk zijn in de gegeven omstandigheden. Bovendien bevat de verantwoordelijkheid van de Raad van Bestuur het ontwerpen, het implementeren en het onderhouden van systemen en processen die relevant zijn bij het opstellen van de "Informatie Over Het Object Van Onderzoek", die geen afwijkingen van materieel belang die het gevolg zijn van fraude of fouten bevatten.

Verantwoordelijkheid van de onafhankelijke auditor

Onze verantwoordelijkheid bestaat erin een onafhankelijke conclusie te formuleren met betrekking tot de "Informatie Over Het Object Van Onderzoek" die opgenomen is in het Verslag, gebaseerd op de door ons uitgevoerde werkzaamheden en de verkregen onderbouwende informatie. We hebben onze werkzaamheden verricht in overeenstemming met de International Standard on Assurance Engagements (ISAE) 3000 (Revised) "Assurance Engagements other than Audits or Reviews of Historical Financial Information". Deze standaard schrijft voor dat we voldoen aan de ethische vereisten en dat we de opdracht plannen en uitvoeren om een beperkte mate van zekerheid te verkrijgen of er niets onder onze aandacht is gekomen dat ons doet aannemen dat de informatie over de "Informatie Over Het Object Van Onderzoek" in alle van materieel belang zijnde opzichten niet opgesteld zou zijn overeenkomstig de door de Vennootschap uitgebrachte Criteria.

Het doel van een limited assurance opdracht is het uitvoeren van werkzaamheden die wij nodig achten met het oog op het verkrijgen van voldoende en geschikte informatie die een basis vormt voor het formuleren van een negatieve vorm van onze conclusie, over de "Informatie Over Het Object Van Onderzoek". De werkzaamheden uitgevoerd in een limited assurance opdracht verschillen naar aard en timing van, en hebben een kleinere omvang dan het geval is bij, een reasonable assurance opdracht. Dienovereenkomstig is het niveau van zekerheid verkregen in een limited assurance opdracht substantieel lager dan het niveau van zekerheid dat zou worden verkregen indien een reasonable assurance opdracht was uitgevoerd.

De keuze van de uitgevoerde werkzaamheden is afhankelijk van de door ons toegepaste oordeelsvorming en van de inschatting van het risico op materiële afwijkingen in de verklaringen van de Raad van Bestuur. Het geheel van de door ons uitgevoerde werkzaamheden bestond onder meer uit de volgende procedures:

- Het beoordelen en toetsen van het opzetten en het functioneren van de systemen en processen die gebruikt werden voor het verzamelen, het analyseren, het aggregeren en valideren van de gegevens, inclusief de gebruikte berekenings- en inschattingmethodes voor de informatie en de gegevens in de Sociale verklaringen, de Milieuverklaringen en de verklaringen over de Waardeketen over het jaar afgesloten op 31 december 2017, op bladzijden 178 tot 209 van het Jaarverslag 2017;
- Het interviewen van de verantwoordelijke personeelsleden inclusief bedrijfsbezoeken;
- De inspectie van interne en externe documenten.

Wij hebben de "Informatie Over Het Object Van Onderzoek" geëvalueerd op grond van de Criteria. De juistheid en de volledigheid van de "Informatie Over Het Object Van Onderzoek" zijn onderhevig aan inherente beperkingen gezien de aard daarvan en de gebruikte methodes voor het bepalen, berekenen of schatten van zulke informatie. Daarom moet ons limited assurance rapport gelezen worden in samenhang tot de Criteria.

Onze onafhankelijkheid en kwaliteitscontrole

We hebben de onafhankelijkheidsvoorschfiften en andere ethische vereisten van de Code of Ethics for Professional Accountants uitgebracht door de International Ethics Standards Boards for Accountants (IESBA) nageleefd. Deze zijn gebaseerd op de fundamentele principes van integriteit, objectiviteit, vakbekwaamheid en waakzaamheid, confidentialiteit en professioneel gedrag. Ons bedrijfsrevisorenkantoor past de International Standard on Quality Control (ISQC) n°1 toe en onderhoudt een uitgebreid systeem van kwaliteitscontrole met inbegrip van gedocumenteerde beleidslijnen en procedures met betrekking tot ethische vereisten, professionele standaarden, en van toepassing zijnde wettelijke en reglementaire vereisten.

Conclusie

Gebaseerd op de door ons uitgevoerde werkzaamheden, zoals beschreven in dit onafhankelijk limited assurance rapport, en op de verkregen onderbouwende informatie, is niets onder onze aandacht gekomen dat ons doet vermoeden dat de informatie en de gegevens weergegeven in de Sociale verklaringen, de Milieuverklaringen en de verklaringen over de Waardeketen over het jaar afgesloten op 31 december 2017 op bladzijden 178 tot 209 van het Jaarverslag 2017 van Umicore en haar dochterondernemingen, alsook de verklaring van Umicore dat dit rapport voldoet aan de GRI Standards – Core vereisten, niet zijn opgesteld in alle van materieel belang zijnde opzichten overeenkomstig de Criteria.

Beperking van het gebruik en de verdeling van ons rapport

Ons assurance rapport is opgesteld in overeenstemming met de voorwaarden die opgenomen zijn in onze opdrachtbrief. Ons rapport is uitsluitend bedoeld voor gebruik door de Vennootschap, met betrekking tot de Sociale verklaringen, de Milieuverklaringen en de verklaringen over de Waardeketen over het jaar afgesloten op 31 december 2017 en kan niet gebruikt worden voor andere doeleinden. Wij zijn niet verantwoordelijk of aansprakelijk voor dit rapport of voor de door ons getrokken conclusies ten aanzien van enige derde partij, behalve ten aanzien van de Vennootschap.

Sint-Stevens Woluwe, 16 maart 2018

PwC Bedrijfsrevisoren bcvba
Vertegenwoordigd door

Marc Daelman*
Bedrijfsrevisor

*Marc Daelman BVBA
Lid van de Raad van Bestuur, vertegenwoordigd door zijn vaste vertegenwoordiger, Marc Daelman

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102-46	Defining report content and topic boundaries	59-62 (Materiality); 63-67 (Management approach)
102-47	List of material topics	59-62 (Materiality); 63-67 (Management approach)
102-48	Restatements of information	63-67 (Management approach); 172 (Environmental statements: E1); 184, 191, 194 (Social statements: S1, S6, S7); 200 (Value chain statements: V4); 216 (About this report)
102-49	Changes in reporting	184, 191, 194 (Social statements: S1, S6, S7); 173-177 (Environmental statements: E1, E2, E3); 198, 200, 202-203 (Value chain statements: V1, V4, V6); 216 (About this report)
102-50	Reporting period	Front cover; Inside front cover; 216 (About this report)
102-51	Date of most recent report	Annual report website
102-52	Reporting cycle	Front cover; Inside front cover; Annual report website
102-53	Contact point for questions regarding the report	Inside back cover; General: stakeholder@umicore.com; Financial: evelien.goovaerts@umicore.com; Social: mark.dolfyn@umicore.com; Environmental: bert.swennen@umicore.com
102-54	Claims of reporting in accordance with the GRI Standards	Inside front cover; 216 (About this report)
102-55	GRI content index	This section; 216 (About this report)
102-56	External assurance	204-210 (Assurance report)

GRI STANDARDS REFERENCE	DISCLOSURE	PAGE REFERENCE IN ANNUAL REPORT 2017
GRI 103: MANAGEMENT APPROACH		
103-1	Explanation of the material topic and its boundary	63-67 (Management approach)
103-2	The management approach and its components	63-67 (Management approach)
103-3	Evaluation of the management approach	63-67 (Management approach)
GRI 201: ECONOMIC PERFORMANCE		
201-1	Direct economic value generated and distributed	50 (Key figures); 8-10 (Umicore at a glance); 58 (Stakeholder engagement); 120-122,163 (Economic and financial statements: F8, F9, F39)
201-3	Defined benefit plan obligations and other retirement plans	141-147 (Economic and financial statements: F27)
201-4	Financial assistance received from government	56 (Stakeholder engagement)
GRI 202: MARKET PRESENCE		
202-2	Proportion of senior management hired from the local community	Similar scope covered in 185-187 (Social statements: S2)
GRI 203: INDIRECT ECONOMIC IMPACTS		
203-1	Infrastructure investments and services supported	51 (Key figures); 54-57 (Stakeholder engagement); 181 (Environmental statements: E7); 202-203 (Value chain statements: V6)
GRI 205: ANTI-CORRUPTION		
205-1	Operations assessed for risks related to corruption	36-37 (Risk management and internal control); Umicore is signatory of Partnering Against Corruption Initiative
205-2	Communication and training about anti-corruption policies and procedures	All employees receive informal training on the Code of Conduct when joining the company
GRI 206: ANTI-COMPETITIVE BEHAVIOR		
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	161 (Economic and financial statements: F36)
GRI 301: MATERIALS		
301-2	Recycled input materials used	8-10 (Umicore at a glance); 201-202 (Value chain statements: V5)
GRI 302: ENERGY		
302-1	Energy consumption within the organisation	177-179 (Environmental statements: E4)
302-3	Energy intensity	177-179 (Environmental statements: E4)
302-4	Reduction of energy consumption	177-179 (Environmental statements: E4)
GRI 305: EMISSIONS		
305-1	Direct (Scope 1) GHG emissions	176-177 (Environmental statements: E3)
305-2	Energy indirect (Scope 2) GHG emissions	176-177 (Environmental statements: E3)
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	174-176 (Environmental statements: E2)
GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT		
308-2	Negative environmental impacts in the supply chain and actions taken	25-27 (Value chain and society review), 197-203 (Value chain statements: V2-V4)

GRI STANDARDS REFERENCE	DISCLOSURE	PAGE REFERENCE IN ANNUAL REPORT 2017
GRI 401: EMPLOYMENT		
401-1	New employee hires and employee turnover	8-10 (Umicore at a glance); 50 (Key figures); 31-35 (Great place to work review); 185-189 (Social statements: S2; S3)
GRI 403: OCCUPATIONAL HEALTH AND SAFETY		
403-1	Workers representation in formal joint management–worker health and safety committees	190 (Social statements: S4)
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	50 (Key figures); 31-35 (Great place to work review); 191-195 (Social statements: S6, S7)
403-4	Health and safety topics covered in formal agreements with trade unions	190 (Social statements: S4); Global framework Agreement on Sustainable Development
GRI 404: TRAINING AND EDUCATION		
404-1	Average hours of training per year per employee	50 (Key figures); 31-35 (Great place to work review); 188-189 (Social statements: S3)
404-2	Programmes for upgrading employee skills and transition assistance programmes	31-35 (Great place to work review); 188-189 (Social statements: S3)
404-3	Percentage of employees receiving regular performance and career development reviews	188-189 (Social statements: S3)
GRI 405: DIVERSITY AND EQUAL OPPORTUNITY		
405-1	Diversity of governance bodies and employees	31-35 (Great place to work review); 70-72 (Corporate governance statements: G4); 185-187 (Social statements: S2)
GRI 408: CHILD LABOR		
408-1	Operations and suppliers at significant risk for incidents of child labour	This element is taken into account as part of the objective on "Sustainable supply"; see 25-27 (Value chain and society review); 198-200 (Value chain statements V2-V4 for approach toward sustainable supply); Ensuring sustainable cobalt sourcing online case study
GRI 409: FORCED OR COMPULSORY LABOR		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	This element is taken into account as part of the objective on "Sustainable supply"; see 28-30 (Value chain and society review); 196-198 (Value chain statements V2-V4); Ensuring sustainable cobalt sourcing online case study
GRI 414: SUPPLIER SOCIAL ASSESSMENT		
414-2	Negative Social and societal impacts in the supply chain and actions taken	25-27 (Value chain and society review), 197-203 (Value chain statements: V2-V4)
GRI 416: CUSTOMER HEALTH AND SAFETY		
416-1	Assessment of the health and safety impacts of product and service categories	201-202 (Value chain statements: V5)
GRI 417: MARKETING AND LABELING		
417-1	Requirements for product and service information and labelling	201-202 (Value chain statements: V5)
OTHER MATERIAL TOPICS REPORTED		
	Criticality of raw materials	To complement the reporting on GRI 308: Supplier Environmental Assessment and GRI 414: Supplier Social Assessment. See 25-27 (Value chain and society review), 197-203 (Value chain statements: V2-V4)
	Sustainable products and services	To complement reporting on GRI 301: Materials. See 25-27 (Value chain and society); 201-202 (Value chain statements: V5)
	Process safety	To complement reporting on GRI 403: Occupational Health and Safety. See 196 (Social statements: S8)
	Metal emissions to air and water	To complement reporting on GRI 305: Emissions. See 174-176 (Environmental statements: E2)

References & key links

UMICORE www.umicore.com

ANNUAL REPORT annualreport.umicore.com

ANNUAL REPORT GLOSSARY annualreport.umicore.com/glossary

THE UMICORE WAY www.umicore.com/en/about/values/#materialsforabetterlife

CODE OF CONDUCT www.umicore.com/en/governance/code-of-conduct

HORIZON 2020 www.umicore.com/en/cases/horizon-2020

GLOBAL FRAMEWORK AGREEMENT ON SUSTAINABLE DEVELOPMENT
www.industriall-union.org/sites/default/files/uploads/documents/2015/Belgium/industriall_umicore_gfa_2015.pdf

SUSTAINABLE PROCUREMENT CHARTER www.umicore.com/storage/main/umicore-sustainable-procurement-charter-2017.pdf

RESPONSIBLE GLOBAL SUPPLY CHAIN OF MINERALS FROM CONFLICT-AFFECTED AND HIGH-RISK AREAS
www.umicore.com/storage/main/responsiblesupplychainpolicy.pdf

SUSTAINABLE PROCUREMENT FRAMEWORK FOR COBALT www.umicore.com/storage/main/sustainablecobaltsupplybrochurefinal.pdf

DUE DILIGENCE COMPLIANCE REPORT COBALT PROCUREMENT
www.umicore.com/en/cases/sustainable-procurement-framework-for-cobalt/compliance-report

CORPORATE GOVERNANCE CHARTER www.umicore.com/en/governance/corporate-governance-charter

UMICORE CAREERS www.umicore.com/en/careers

INVESTOR RELATIONS www.umicore.com/en/investors

SHAREHOLDER RIGHTS www.umicore.com/en/governance/shareholder-rights

UMICORE NEWS www.umicore.com/en/investors/news-results/press-releases

OTHER REFERENCES & LINKS

CORPORATE GOVERNANCE COMMITTEE www.corporategovernancecommittee.be/en

ECOVADIS www.ecovadis.com

FINANCIAL SERVICES AND MARKETS AUTHORITY www.fsma.be/en

OECD DUE DILIGENCE GUIDANCE FOR RESPONSIBLE SUPPLY CHAINS OF MINERALS FROM CONFLICT-AFFECTED AND HIGH-RISK AREAS
www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf

RESPONSIBLE MINERALS INITIATIVE, FORMERLY CONFLICT-FREE SOURCING INITIATIVE www.responsiblemineralsinitiative.org

WBCSD GUIDANCE FOR ACCOUNTING AND REPORTING CORPORATE GHG EMISSIONS IN THE CHEMICAL SECTOR VALUE CHAIN
www.wbcsd.org/contentwbc/download/2831/35596

WORLD ECONOMIC FORUM'S PARTNERING AGAINST CORRUPTION INITIATIVE (PACI) SIGNATORIES
web.worldbank.org/archive/website00818/WEB/OTHER/62_COMPA.HTM

About this report

The Umicore Annual Report offers a comprehensive and integrated view of our economic, financial, environmental, value chain and social performance for 2017.

This report consists of two sections: an annual review and a statements section, also available as two distinct booklets. The annual review (first booklet, pages 1 to 51) provides a Umicore overview and focuses on the key performance aspects of 2017 as they relate to our Horizon 2020 strategy. The statements section (second booklet, pages 52 to 216) includes a thorough description of the materiality assessment and the approach to economic, environmental, value chain and social management, as well as full financial, environmental, value chain, social and governance statements and notes. All elements of the 2017 Annual Report can be consulted at http://annualreport.umicore.com/.

AN INTEGRATED APPROACH

One of the key objectives of this report is to reflect our integrated strategic approach which combines economic, environmental, value chain and social performance targets. This report further refines the approach based on elements from the "International Integrated Reporting Framework" developed by the International Integrated Reporting Council, which requires a more complete disclosure and discussion of the material factors influencing our business and the risks and opportunities linked to our Horizon 2020 strategy.

REPORTING SCOPE

This report covers our operations for the 2017 calendar year which is also the Umicore fiscal year, and reports on the progress towards our Horizon 2020 objectives. The scope of all objectives and a brief description of the methodology behind all performance indicators are included in the statements section of the report. Where data are available, the performance indicators in the document are reported with a comparison base going back five years.

The economic scope of this report covers all fully consolidated operations and the financial contributions of all associate and joint venture companies. The Building Products activities were divested in October and the economic contribution of this activity is included for nine months.

The environmental and social scope is limited to all fully consolidated entities except for the Building Products activities – any divergence from this scope is explained in the relevant chapter or note in the report.

DATA

The economic and financial data are collected through our financial management and consolidation process. The environmental and social data are collected through environmental and social data management systems and integrated into a central reporting tool, along with the economic and financial data.

ASSURANCE

This report has been independently verified by PwC Bedrijfsrevisoren/Réviseurs d'Entreprises (PwC). PwC's audit of financial information is based on full set of IFRS consolidated financial statements on which it has expressed an unqualified opinion. This full set of IFRS consolidated financial statements and the auditor's report thereon, can be found on pages 93 to 170 and page 204-209 of the report. The social, value chain and environmental information included in this report has been prepared on the basis of the same recognition and measurement principles that have been used to prepare the environmental and social statements that can be found on pages 172 to 203. The independent auditor's report of PwC on the social, value chain and environmental statements can be found on page 210 of the report.

This report has been prepared in accordance with the GRI Standards: Core option. A full GRI index can be found on pages 211-214. The Global Reporting Initiative (GRI) is a network-based organisation that pioneered the world's most widely used sustainability reporting framework. The GRI Standards, launched in October 2016, are the first global standards for sustainability reporting.

Umicore has aligned the corporate reporting to the non-financial reporting requirements set out in the Belgium Companies Code.

PRESENTATION & FEEDBACK

Umicore seeks to improve its reporting through a continuous process of stakeholder engagement and dialogue. The key social elements of the report are presented to the international trade unions during the joint monitoring committee in March, while the entire document is presented to shareholders at the Annual General Meeting in late April.

Umicore also commits to consider all improvement points recommended by the independent auditor (PwC) in its subsequent reporting cycles. General reader feedback is encouraged on both the print and on-line versions of the report (see facing page for contact details). Feedback received on our previous reports has been considered in the preparation of this report.

FINANCIAL CALENDAR[1]

26 APRIL 2018
General meeting of shareholders (financial year 2017)

30 APRIL 2018
Ex-dividend trading date

3 MAY 2018
Payment date for dividend

30 JULY 2018
Half year results 2018

7 FEBRUARY 2019
Full year results 2018

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LANGUAGES
This report is also available in French and Dutch.

INTERNET
This report can be downloaded from the Umicore website:
http://annualreport.umicore.com/

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FEEDBACK
Let us know what you think about this report.
Send an e-mail to stakeholder@umicore.com

1 Dates are subject to change. Please check the Umicore website for updates to the financial calendar.

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