

> P. 1-33 Check out our overall sustainability performance

> P. 34-37 Discover our Horizon 2020 strategy

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 Full sustainability and financial statements



onsult the online report ttp://annualreport.umicore.com/

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Assurance reports

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This Annual Report is an integrated view of our economic, social and environmental performance in 2015. To access the full web-based report please visit our dedicated reporting centre via the link below.

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Our report is externally verified. This report closes Vision 2015 strategy reporting and for this reason still uses the GRI G3.1 guidelines.

A full overview of the scope of our reporting can be found on page 192.

Consult the online report http://annualreport.umicore.com/



About us

Umicore is a global materials technology and recycling group. It focuses on application areas where its expertise in materials science, chemistry and metallurgy makes a real difference. Its activities are organised in three business groups: Catalysis, Energy & Surface Technologies and Recycling. Each business group is divided into market-focused business units offering materials and solutions that are at the cutting edge of new technological developments and essential to everyday life.

Umicore generates the majority of its revenues and dedicates most of its R&D efforts to clean technologies, such as emission control catalysts, materials for rechargeable batteries and recycling. Umicore's overriding goal of sustainable value creation is based on an ambition to develop, produce and recycle materials in a way that fulfils its mission: materials for a better life. About us

2

Umicore

Vision 2015

▶ 26%

N 26%

Economic €1.2 bn of investments and €714 m of R&D

High growth activities' revenue growth

VISION 2015 TARGET

realized

70%

Grow other activities in line with global GDP

73% 72%

realized

ROCE ambition



Average ROCE achieved

L15%

Eco-efficiency

Reduce CO₂ emissions VISION 2015 TARGET

Reduce impact of metal emissions to air

VISION 2015 TARGET N 37%

Reduce impact of metal emissions to water

VISION 2015 TARGET

20%

20%

We developed expertise and tools to measure the sustainability of products and services in all business units

Umicore Annual report 2015

Results

Great place to work

Safety

VISION 2015 TARGET

accidents

accidents in 2015 vs 60 in 2011

Reduce occupational exposure

VISION 2015 TARGET

excess readings

excess readings in 2015, down from 5.2% in 2011

Ni Pb Cd

Pt

Co As

People development



All employees receive an annual appraisal

Preferred employer





69%

people worked in a site that received recognition as a preferred employer

Stakeholder

Local community

99%

of industrial sites have deployed plans regarding accountability to the local community

Sustainable procurement

7 83%

of selected suppliers have acknowledged adherence to Umicore's sustainable procurement charter

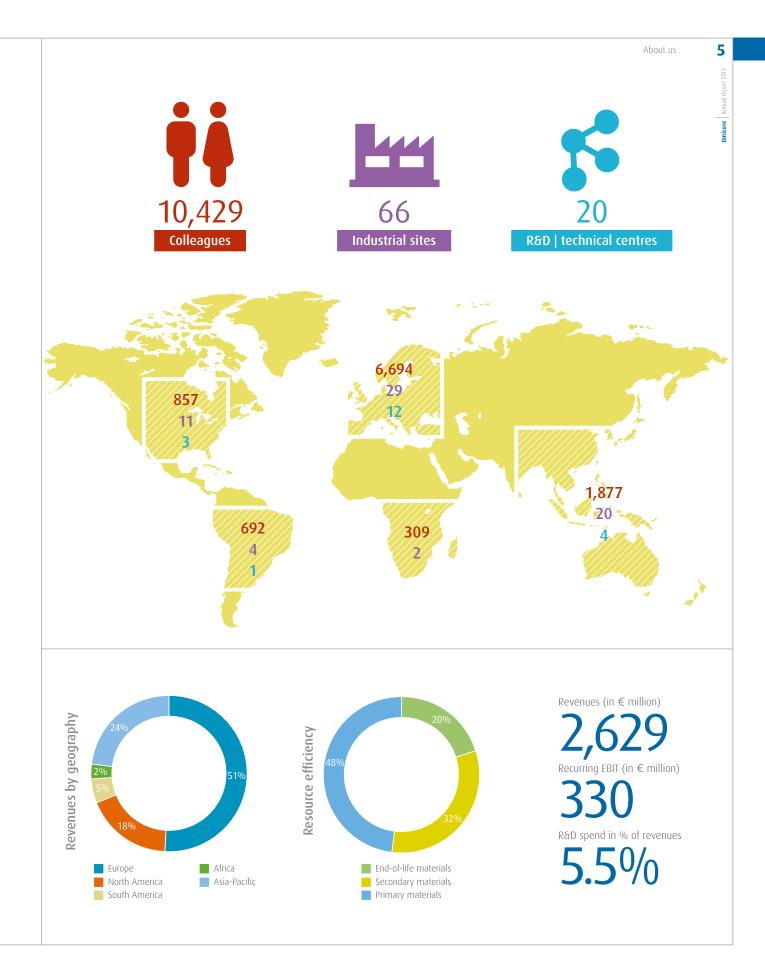


Key figures

Economic performance (in million € unless stated otherwise)	2011	2012	2013	2014	2015
Turnover	14,480.9	12,548.0	9,819.3	8,828.5	10,441.9
Revenues (excluding metal)	2,323.2	2,421.4	2,363.4	2,366.5	2,629.0
Recurring EBIT	416.1	372.1	304.0	273.7	////330.3/
of which associates	22.9	22.2	11.8	28.3	143
Total EBIT	432.7	328.6	260.0	249.3	/////252,7/
Recurring EBIT margin (in %)	16.9	14.4	12.4	10.4	12.0
Return on Capital Employed (ROCE) (in %)	18.6	16.7	13.6	12.2	1//////////////////////////////////////
Recurring net profit, Group share	304.6	275.2	218.0	193.1	246.0
Net profit, Group share	325.0	233.4	179.0	170.6	169.2
R&D expenditure	136.7	149.0	140.6	143.3	144.5
Capital expenditure	196.2	235.9	279.6	202.4	////240,3/
Net cash flow before financing	308.6	150.3	185.9	139.9	119.0
Consolidated net financial debt, end of period	266.6	222.5	215.0	298.3	321.3
Gearing ratio of continued operations, end of period (in %)	13.4	11.0	11.1	14.6	15.3
Group shareholders' equity, end of period	1,667.5	1,751.7	1,677.1	1,704.6	1,731.6
Recurring EPS (in €/share)	2.69	2.47	1.96	1.79	///////////////////////////////////////
EPS including discontinued operations, basic (in €/share)	2.87	2.09	1.61	1.58	1.56
Gross dividend (in €/share)	1.00	1.00	1.00	1.00	1.20

2011	2012	2013	2014	2015
10,164	10,396	10,190	10,368	10,429
60	49	35	37 ///	//////////AT
3.61	2.86	2.08	2.16	////2,66/
0.11	0.11	0.10	0.94	////0.12/
5.2	4.3	2.6	1.8	////////////2/3//
51.94	50.72	45.18	45.59	45.06
3.84	3.20	3.33	3.42	////3,35/
	10,164 60 3.61 0.11	10,164 10,396 60 49	10,164 10,396 10,190 60 49 35 3.61 2.86 2.08 0.11 0.11 0.10	10,164 10,396 10,190 10,368 60 49 35 37 3.61 2.86 2.08 2.16 0.11 0.11 0.10 0.94

Eco-efficiency	2011	2012	2013	2014	2015
CO ₂ e emissions (scope1+2) (in tonne)	695,733	701,898	690,767	664,568	714,225
Metal emission to water (load in kg)	5,782	5,701	5,560	5,639	4,459
Metal emission to water (impact units)	306,627	245,935	313,883	543,332	328,013
Metal emission to air (load in kg)	13,868	16,615	12,522	13,309	14,544
Metal emission to air (impact units)	130,440	135,670	130,169	128,465	135,660
Stakeholder engagement	2011	2012	2013	2014	2015
Total donations (in € thousand)	1,751.0	1,759.2	1,612.8	1,409.3	1,219.4





Umicore Chairman, Thomas Leysen and CEO, Marc Grynberg look back on 2015, the accomplishments of the Vision 2015 strategy and take a look at Umicore's future.

The past year has been pivotal in Umicore's development. Despite a challenging macro-economic and metal price context in the latter stages of 2015, Umicore managed to maintain momentum, posting double digit growth in both revenues and earnings. Revenues increased 11% year on year to EUR 2.6bn and recurring EBIT grew 21% to EUR 330m. It was particularly rewarding to see that a significant part of this increase stemmed from strong demand in businesses to which we have continued to allocate significant resources such as Automotive Catalysts and Rechargeable Battery Materials. This recovery was further supported by productivity improvements and selective restructuring initiatives.

Most of those business units that rely partly on metal margins for their profitability encountered increasingly challenging market conditions as the year progressed. Fuelled by uncertainties related to China and other emerging countries, many metals saw pricing headwinds turn into a price collapse as the year progressed. For some metals this resulted in price levels not seen since the start of the financial crisis. The combination of higher sales volumes, supply and product mix improvements and some foreign exchange tailwinds did more than offset these negative metal price effects.

Cash flow generation in 2015 remained highly positive. We continued to fund major long-term growth investments, completing the most significant part of the Hoboken expansion project and bringing on stream a number of

capability and capacity enhancements in the Automotive Catalysts and Rechargeable Battery Materials as well as smaller investments in the other business units. We were also able to continue returning cash to shareholders through dividend payments and by buying back close to a million of our own shares during the year. The Board of Directors has proposed a gross annual dividend of €1.20 per share for 2015. This represents an increase of 20% and, in the context of Umicore's policy of paying a stable or gradually increasing dividend, represents a strong signal of confidence in the potential of the company.

2015 marked the final year of our Vision 2015 strategy and the articulation of new goals for the coming five years – Horizon 2020. The overriding conclusion from the past five years is that we have made the right strategic choices. From an economic perspective, the Horizon 2020 strategic priorities sould be seen very much as a continuation of the agenda that we set for Umicore a number of years ago. With the exception of photovoltaics, the megatrends that are driving our business are, if anything, even stronger than they were back in 2010. We have laid sturdy foundations for growth in the businesses that are driven by the push towards cleaner mobility and recycling and while the negative metal price evolution in 2015 prevented us from attaining the growth potential we outlined in 2010, we expect that the contribution of these investments has started to be visible in 2015 and should be felt more fully as from 2016. Our overall 2020 goals are to be a clear leader in materials for clean mobility and in recycling, to have doubled the size of the business in terms of earnings and to ensure that our Catalysis and Energy & Surface Technologies make up proportionately more of our earnings by 2020, meaning a more balanced portfolio.

In order to ensure the best chance of success over the coming years we will need to continue sharpening the focus of the business. With this in mind, in early 2015 we announced our intention to divest the zinc business units – Building Products and Zinc Chemicals.

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"The overriding conclusion from Vision 2015 is that we have made the right strategic choices."

Both business units have improved their positioning in recent years and are ready to develop further in an environment that is specifically aligned with their respective products, services and applications. While our intention is to complete both transactions by the end of 2016, we will concentrate in the first instance on making progress with the Zinc Chemicals divestment.It is not yet clear what impact the French competition authorities' assertions relating to the activities of Building Products might have on that business unit.

In terms of sustainability performance the progress towards our Vision 2015 goals has been largely very positive. On the environmental front, we achieved a reduction in CO₂ emissions of 26% compared to the baseline year of 2006 and compared to a targeted reduction of 20%. The achievement of the metal emission reduction targets was even more pronounced. The impact of emissions to water and air were driven down respectively by 26% and 37% compared to a targeted reduction of 20%, representing an outstanding performance.

With regards to people development and stakeholder engagement we also made big strides. The people survey of 2014 indicated a high level of engagement and satisfaction among our employees and in 2015 the business units and sites made progress with their action plans for further improvements. By 2015 we had ensured that the vast majority of Umicore employees received an annual appraisal and development plan and we had also made good progress in further reducing the exposure levels of our employees to various metals. In the area of sustainable procurement we have built on our reputation as a pioneer in the field and have ensured a steady roll out of our Sustainable Procurement Charter and a rigorous implementation of measures to guarantee that materials treated by Umicore are conflict free and sourced in a sustainable and ethical manner.

The one area where performance has been less than satisfactory has been safety. We set ourselves the target of becoming an accident-free company by 2015 and, while our safety performance is better than at the start of the programme in 2010, we have fallen short of this objective. We recorded 47 lost time accidents in 2015 compared to 37 accidents recorded the previous year. While we can be proud of the achievements in certain parts of Umicore, with 84% of our production sites having had no lost time accident for a year or more, it is evident that we need to adapt our approach if we are to realise our zero accident ambition.

We have published in this report our new environmental and social objectives that form an integral part of our Horizon 2020 strategy. We have retained certain Group-wide objectives to which all business units are expected to contribute – the most pressing of which is the continued drive towards zero accidents. In other areas we have taken a broader look at Umicore's contribution across the value chain and have developed a series of goals that have been largely aggregated based on the priorities of the business units. The common denominator for all of these objectives is that they have the potential to provide the business units with an enhanced competitive edge, whether through sustainable metal supplies, more eco-efficient operations, improved access to talent or better performing products and services. You can discover more about these objectives on pages 34 to 37 of this report.

At the time of writing, 2016 is off to a volatile start and the global macro-economic environment has been proving uncertain. The markets have been fearful of the possibility of an economic hard landing in China and these nerves have been frayed further by various well-documented geo-political risks. Commodity prices - metal prices in particular - remain at low levels and announcements of supply cuts have hardly had any positive impact. While we anticipate significant volume growth across our main growth platforms, metal prices are currently at lower levels

"Our new environmental and social objectives form an integral part of our Horizon 2020 strategy."

than the average of last year. Given the high level of market volatility it is difficult to estimate what impact metal prices might have on the anticipated benefits from the strong volume growth. As usual, we will provide more guidance at the end of April when issuing the first quarter trading update.

We would like to take this opportunity to extend our thanks and appreciation to all our stakeholders for their contribution to our success over the course of 2015.

CEO & Chairman's review

We have a clearly defined path ahead of us and we are looking forward to making the most of the various opportunities together with our customers, employees, shareholders, suppliers and other business partners.

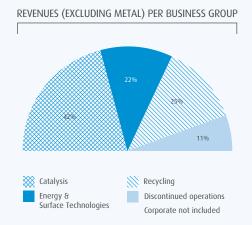


Profitability increased substantially, driven by higher revenues.

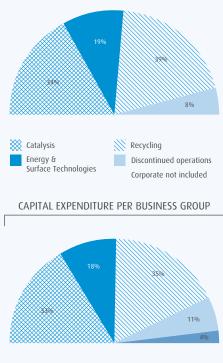
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"Revenues were 11% up compared to 2014 with strong growth in Catalysis and Energy & Surface Technologies more than offsetting the impact of lower metal prices."

Economic review



RECURRING EBITDA PER BUSINESS GROUP





Discontinued operations Corporate & Unallocated

Overview

Revenues were well up (+11%) compared to 2014 with strong growth in Catalysis and Energy & Surface Technologies more than offsetting the impact of lower metal prices on the recycling activities. The revenue growth, which was in part driven by the ramp-up of growth investments, was the main factor behind the REBIT growth of 21%. Returns on capital employed reached 13.7%.

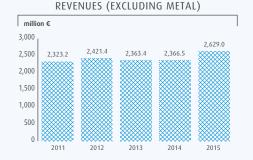
Compared with 2010 Umicore generated revenue growth in its high growth activities of 7% compared to the stated potential of 10%. The revenue growth of the businesses with a global GDP growth profile was 2% compared to global GDP growth during that period of 3%^{*}. The overall revenue growth was hampered by the decline in metal prices since 2012 and this produced an even more significant headwind for REBIT growth in particular in 2015 at a time when many of the most significant growth investments were starting to bear fruit. Average return on capital employed for the five year period was 15% and therefore within the stated target range of 15-20%.

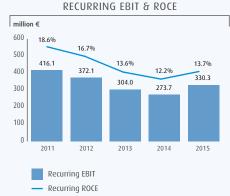
Segment commentary

Catalysis

Revenues and earnings for Catalysis were up 19% and 50% respectively, reflecting strong growth in **Automotive Catalysts** and -to a lesser extent- growth in the smaller Precious Metals Chemistry business unit.

Revenues and earnings for Automotive Catalysts were up substantially year on year, reflecting strong demand and a more favourable product mix in light duty applications. The ramp up of heavy







2014

2015

💥 Catalysis

Energy &

Surface Technologies

2011 2012 2013

* based on IMF and World Bank data

duty diesel catalyst sales in Europe and Asia further contributed to the positive evolution.

The global light duty vehicle market showed a moderate growth of 1%. The recovery in Europe and the continued growth in North America and China were largely offset by a decline in the Japanese and South American car markets. Umicore's sales volumes and revenues were well ahead of the car market, globally and in all regions.

In Europe, Umicore's volumes and revenues were significantly up, growing faster than car production, which was up 3.3%. The share of diesel catalyst in the sales mix increased following the introduction of Euro 6b compliant platforms. Sales volumes of gasoline catalysts were also higher due to the success of the platforms introduced in early 2015. Production at Umicore's new plant in Poland started up in the third quarter of 2015– ahead of the original schedule – and is ramping up.

In North America Umicore's growth was well ahead of the car market, which was up 2.7%, due to a favourable platform and customer mix. In South America, where car production levels saw a further dramatic decline, Umicore managed to grow its revenues as a result of the successful launch of new platforms.

Umicore outpaced the Chinese car market benefitting from a good platform mix and strong exposure to international car manufacturers. Car production in China grew 3%, picking up in the fourth quarter following the government's decision to cut the sales tax for vehicles with smaller engines. Umicore's revenues benefitted from a favourable product mix in South Korea, where the market showed a slight recovery. Construction of the technology development centre in Incheon City was completed and commissioning of the new facility has started. Umicore further increased its presence with Japanese OEMs globally. In India the car market grew strongly and Umicore is ramping-up production of light duty vehicle catalysts at its new production plant near Pune. Construction of the new catalyst plant in Thailand is progressing; commissioning is on schedule for the third guarter of 2016.

Revenues for **Precious Metals Chemistry** were well up year on year. This was mainly due to higher demand from the automotive industry for precursors used in catalytic applications, particularly in Europe. Sales of APIs (Active Pharmaceutical Ingredients) continued to grow as a result of new business in the North American, European and Asia-Pacific markets. Order levels for organic compounds were also up and were driven primarily by growth in sales of materials for use in life science applications.

Energy & Surface Technologies

Revenues and earnings for Energy & Surface Technologies increased by 20% and 30% respectively, mainly as a result of strong volume growth in Rechargeable Battery Materials and higher revenues in Cobalt & Specialty Materials. The impact of higher revenues on earnings was partly offset by the negative impact of lower nickel and cobalt prices in Cobalt & Specialty Materials. The segment results include costs related to the ITC litigation (see page 111).

The Li-lon battery market continued to grow strongly and Umicore's sales volumes and revenues for **Rechargeable Battery Materials** were up substantially year on year. Global shipments of high-end portable devices remained solid in 2015 Umicore successfully maintained its strong position in this market segment due to its broad customer base and proprietary High Energy LCO (lithium cobaltite) product offering.

Demand for Li-Ion cathode materials used in the transportation segment was boosted by the increasing number of electrified vehicle models. This was particularly the case in China, where sales of electrified vehicles were supported by government incentives. Umicore, with its diversified customer base, continued to benefit from these trends in the transportation seqment and recorded strong growth in demand for its wide range of NMC (nickel manganese cobalt) cathode materials. Significant efforts continued to go into product qualification schemes resulting in successful qualification for new platforms to be launched in the coming years and covering all degrees of electrification (EV, pHEV and HEV).

Capacity expansions in South Korea and China were completed in late 2015 and early 2016. In November Umicore sold its stake in lithium iron phosphate (LFP) joint venture belife to Prayon. This signalled that Umicore's focus is in further strengthening its efforts in NMC (nickel manganese cobalt) and high energy LCO (lithium cobaltite) cathode materials which are proving to be the materials of choice in the fast growing automotive segment and portable electronic segment respectively.

Revenues for **Cobalt & Specialty Materials** were up year on year reflecting the contribution of the activities acquired in 2014 and increased sales volumes in several product groups. Earnings, however, were negatively impacted by lower nickel and cobalt prices as well as competitive price pressure in certain end markets.

Revenue growth in products for ceramics and chemical applications reflected the contribution of the European distribution activities which were acquired at the end of 2014. Strong demand for metal carboxylates used in various catalytic applications and higher order levels for nickel sulphate used as precursors for cathodes further added to the growth.

The revenue contribution from cobalt and nickel refining was also up. A key factor in this growth was the acquisition of CP Chemicals in the third quarter of 2014, which increased refining volumes of cobalt and nickel. Higher refining levels were recorded at the plant in Olen, Belgium. Revenues and sales volumes in materials for tooling applications remained fairly stable in what is a highly competitive market.

Revenues for **Electroplating**

were up year on year mainly due to the growing demand for rhodium, silver and gold products used in decorative and anti-tarnish applications. This was the case both in Asia and Europe. Sales of materials used in wear protection applications also increased. Sales of materials for use in the electronics industry were lower due to reduced demand from customers in Asia, although certain sub-segments such as materials for reflective coatings in LEDs performed well.

Revenues for **Electro-Optic Materials** were up significantly reflecting a higher contribution from recycling and refining activities and increased sales volumes across product groups. Sales of substrates used in space photovoltaic (PV) applications were well up and the business unit successfully enhanced its position through a broadened product

Economic review

offering. Revenues in the infrared optics business benefited from the fast-growing demand for finished optics. Higher sales volumes of high purity chemicals for use in fibre optics further added to the positive revenue evolution.

Thin Film Products recorded higher revenues year on year, driven mainly by growing demand for Umicore's indium tin oxide rotary targets used in the display segment, particularly in China. Revenues from products sold to the microelectronics industry were also up reflecting higher demand in Europe and Asia. The construction of the facility in China for the production and recycling of ITO targets is on track to be commissioned in the first half of 2016.

Recycling

Revenues and earnings for Recycling were down 2% and 5% respectively, reflecting the impact of lower metal prices and lower demand in certain end-markets of the Platinum Engineered Materials and Technical Materials business units.

Revenues for Precious Metals **Refining** were stable year on year, despite declining metal prices. An improved supply mix both for industrial by-products and end-of-life materials helped offset the impact of the lower metal prices on revenues. As anticipated, the processed volumes were in line with those of the previous year. A higher throughput was achieved in the fourth quarter following the expansion investments which allowed the Hoboken plant to make up for the lost volumes caused by the two extended shutdowns during which the investment work was carried out.

The supply of materials was solid across segments, both in terms of

<image>

Hoboken: mastering complexity

2015 saw the completion of the most intensive phase of a \in 100 million expansion at Precious Metals Refining in Hoboken, Belgium. As operations ramp up, the plant is well on its way towards a 40% capacity increase.

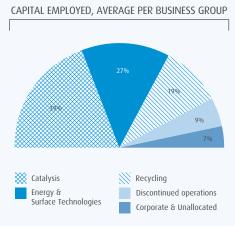
The need for metals is rising. Some are getting scarcer. Environmental rules are tightening. Metal-containing residues from the mining and smelting industry are growing in quantity and complexity. And the recycling of endof-life materials will remain important. These are the drivers behind Hoboken's three-year expansion project.

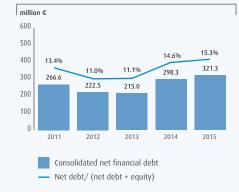
Following a first phase of work in 2014, last year saw a partial shutdown of the plant for major capacity changes to two key operations: the smelter and blast furnace. Equipment was enlarged and storage areas expanded. Processes were modified and technology improved, with considerable R&D going into increasing throughput and managing ever-more-complex input materials.

The expansion, from 350,000 to 500,000 tonnes per year, places Umicore even further ahead of its competitors. Hoboken also has a technology edge. For example, R&D is looking to extend the number of metals recovered from today's 17 to 20 or more. This is clearly an investment in a strong, sustainable future.

Find out more in this short animation.







NET FINANCIAL DEBT

R&D EXPENDITURE



R&D expenditure
R&D expenditure / revenues





volumes and quality. Supplies of end-of-life materials tended to be of a higher grade while in industrial by-products more PGM-rich material and complex residues were received from the non-ferrous metal mining and smelting industries.

The metal price environment was unsupportive with declining prices for most metals in the second half of the year and extremely low demand for certain specialty metals. Umicore mitigated the impact of lower spot prices for precious metals through previously secured pricing. Prices for specialty metals however cannot be hedged and had a significant impact on earnings especially in the second half of the year.

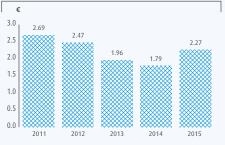
The Hoboken capacity expansion programme made significant progress during 2015. Two major investment waves were successfully carried out during the year resulting in an increased throughput rate.

Revenues for **Jewellery & Industrial Metals** were down due to a lower contribution from the recycling activity. While the refining volumes benefitted from a better availability of silver-containing residues, this was more than offset by the impact of lower metal prices. Revenues from the product businesses were up due to higher demand for investment products and particularly strong demand for silver coins from European and North American mint producers.

Revenues for **Platinum** Engineered Materials were

down compared to the previous year. Order levels for platinum equipment used in glass manufacturing remained subdued as producers tend to use their platinum equipment longer, particularly in the display segment. Sales volumes for platinum gauzes used in the fertilizer industry were also lower. The business unit further reduced its cost base in 2015.

RECURRING EPS



Economic review

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Precious Metals Management

recorded higher demand for deliveries of physical metal. Demand for PGMs increased on the back of higher order levels from the automotive industry. Sales volumes for gold bars were somewhat higher as investor demand picked up in the second half of the year. The contribution from the trading activity was stable.

Revenues for **Technical Materials** were down year on year reflecting lower sales volumes across the different product groups. In Europe the pressure from substitution and miniaturization persisted and demand in Brazil was significantly impacted by customer inventory adjustments in the fourth quarter.

Discontinued operations

In early 2015 Umicore announced its intention to divest its two zinc-related business units, Zinc Chemicals and Building products. These units were subsequently reported as 'discontinued operations'.

Revenues and earnings for **Building Products** were down year on year. The European construction market remained sluggish, particularly in France which is the largest market for the business unit. In the markets outside of Europe the launch of several projects increased revenues without fully offsetting the lower sales volumes in Europe. The implementation of significant cost reduction and productivity improvement programmes partially offset the impact of lower revenues on earnings.

Revenues and earnings for **Zinc Chemicals** were significantly higher year on year, with all product groups achieving higher sales volumes. The business unit benefited from a higher intake of zinc-containing residues from the galvanizing industry compared to 2014. The improved input mix more than offset the effect of the declining zinc price in the second half of the year resulting in higher recycling margins.

Corporate items

Overall corporate costs remained roughly at the same level as in 2014.

Revenues and earnings for Element Six Abrasives declined substantially year on year reflecting challenging trading conditions, particularly in the oil and gas drilling industry and, to a lesser extent, lower demand for materials used in the mining sector. The impact of lower revenues on earnings was partly offset by cost reductions and restructuring programmes throughout the organization.

CASE

A new future

In early 2015 several Umicore business units – Zinc Chemicals, Building Products and Thin Film Products – began developing new strategic roadmaps. The business heads explain.

BUILDING PRODUCTS AND ZINC CHEMICALS: STRONG PLAYERS

For Stephan Csoma, Executive Vice-President, it is important to understand the current position of these two business units within Umicore: "Both are strong players in their segments but they no longer fit Umicore's growth ambitions in clean mobility and recycling. They would have a better future outside Umicore where they could be core."

In recent years, Umicore has worked hard at strengthening Building Products, a leader in developing high value-added zinc materials for the building industry. "In 2013, we downsized the structure to align with limited expected growth," says Stephan. "But we've also made all the necessary investments to *remain competitive."* An example is the lacquering line in Viviez, France. Finalised in 2014, it brings previously outsourced operations into the business, thereby increasing product flexibility and reducing costs.

One option for the business unit is to join forces with another player in roofing, façade or rainwater systems. As a core business it would benefit from more sales support and economies of scale. Another option would be an integration into a large construction group with a broader offering. It would remain a key player in zinc-based materials, while benefitting from synergies with other products. *"Both options would put the business in a stronger position,"* says Stephan. A third possibility might be to become a standalone company.

Competitive advantage

Zinc Chemicals is another strong business. It is a worldwide leader in zinc powders for alkaline batteries, protective coatings, and recycling zinc galvanising by-products. It is also a European leader in zinc oxide. Advanced process technologies give it a competitive edge. "The business unit also has an extensive commercial network, longstanding customer relationships and a *lean structure,"* says Stephan. Again, continual investment has been key. This includes expansion in Pasir Gudang, Malaysia; a new plant with state-of-the-art technology in Changsha, China; and upgrades of other plants in Belgium and The Netherlands.

The most natural option, Stephan observes, would be a merger or acquisition by a company with similar activities, creating a stronger player with an even wider geographical reach. A second option would be integration with an upstream partner, for example a zinc smelter that could provide a secure supply of raw materials. Becoming a standalone company might also be an option.

THIN FILM PRODUCTS: A NICHE SPECIALIST

This business unit is an integral element of Umicore's portfolio but requires a specific strategic approach. Marc Van Sande, Executive Vice-President, explains that Umicore wants to remain a full or part owner of this activity and to help it increase its market presence through strategic partnership. "We want to give the business unit more critical mass for the next phase of its development, whether as a major or minor shareholder remains to be seen." Marc explains that Thin Film Products sells to specialised niches.

Attractive alliances

The business unit has carried out substantial investments and Marc points to the recent joint venture in Qingyuan, China, to build a new facility for large-area coating applications.

"The units are strong and at a good stage in their business cycles to take this step."

Stephan Csoma



Economic review



The business unit is in a good position to search for attractive alliances. One option is to look

for upstream partners with good access to raw materials. Another

possibility would be other down-

stream partners, giving the businesses more access to the next

step in the value chain. "A third

option," says Marc, "would

develop new applications."

be a partner with expertise in

complementary metals in order to

"It is all about opportunities."

NEXT STEPS

"Since the announcement in January the business unit managers and I had discussions with works councils and visited sites to explain the changes and answer questions," Stephan says. A process also created distinct legal entities for the activities in Belgium, France and the US, where the businesses were embedded with other Umicore activities.

The next step is to search for attractive acquisition partners for Building Products and Zinc Chemicals, and alliance partner for Thin Film Products. "We want to complete this by the end of 2016, ensuring the best option for each business unit," says Stephan. Marc adds: "It will take time for people to come to terms with the change. Yet with the right technology and world-class people and products there is always a good future. It is really the right moment for these businesses to decide their destiny."

Marc Van Sande



Non-recurring items

Non-recurring items had a negative impact of € 75 million on EBIT. The main item consisted of impairments of permanently tied-up metal inventories across several business units due to lower metal prices and totalled € 26 million. Restructuring charges accounted for € 23 million, covering cost reduction measures and production footprint adjustments in specific business units such as Technical Materials as well as in the Element Six Abrasives joint venture. Environmental provisions of € 11 million were booked for the remediation of historical pollution. Other non-recurring expenses were amongst other linked to an impairment of Umicore's shareholding in Nyrstar. The book value of this holding was adjusted in line with IFRS toward Nyrstar's

closing price on 31 December 2015 (€ 1.60). The impact of non-recurring charges on the net result (Group share) amounted to € 63 million.

Financial result and taxation

Net recurring financial charges totalled \notin 10 million, with positive foreign exchange results more than offsetting higher interest charges. The average weighted net interest rate remained stable at 1.54%. The recurring tax charge for the period amounted to \notin 66 million corresponding to a stable recurring effective tax rate for the period of 21.4% (vs 21.8% in 2014).

Cash flows

Cash flow from operations was € 432 million. This included an increase of working capital of € 43 million as a result of the business expansion across the business groups which was tempered by a decrease of working capital in the discontinued operations.

Capital expenditures totalled € 240 million, of which the vast majority was related to Umicore's growth projects. In Recycling, major investments linked to the capacity expansion in Hoboken were successfully carried out during the year. Investments in Catalysis were mainly linked to the construction of the production facilities in Poland and Thailand, as well as the construction of Ordeg's new technology development centre in South Korea. Capital expenditures in Energy & Surface Technologies were primarily related to the ongoing production capacity expansions for Rechargeable Battery Materials in China and South Korea.

Financial debt

Net financial debt at 31 December 2015 stood at \in 321 million, only slightly up from \in 298 million at the start of the year despite the significant investments over the period. Group shareholders' equity stood at \in 1,732 million resulting in a net gearing ratio (net debt / net debt + equity) of 15.3%. The average net debt corresponded to 0.6x recurring EBITDA.

Research, development & innovation

R&D expenditure in fully consolidated companies including discontinued operations amounted to € 145 million, slightly up on the level of 2014. Higher expenditures in Catalysis were largely offset by lower R&D spending in Recycling as the expansion works in the Hoboken plant moved into a deployment phase. The R&D spend represented 5.5% of revenues compared to 6% in 2014.

The main areas of product R&D spending are in automotive catalysis, fuel cell catalysis and rechargeable battery materials. The majority of process-related R&D spending is dedicated to recycling technologies as well as processes for the production of catalysts and rechargeable battery materials. Umicore deducts any research grants that are received from third parties from the reported R&D figures. We also apply the internationally recognized Frascati Manual definitions for R&D expenditure. The reported R&D expenditure in this report excludes R&D of associates.

On July 1, 2015 Umicore and Solvay announced that they had sold their respective 50% stakes in joint venture SolviCore to Japanese chemical company Toray. SolviCore will benefit from Toray's expertise in fuel cell materials and experience in mass production. Umicore continues to focus on its core competence in catalysis and to develop and commercialize electro-catalysts for the fuel cell industry.

A total of 46 new patent families were filed in the course of 2015, compared to 43 in 2014. Most of these concern automotive catalysts and rechargeable battery materials.

Umicore has prioritized its R&D programmes to offer the best

possible support to the Horizon 2020 ambitions with a focus on the development of innovative materials and processes in the areas of clean mobility and recycling. A comprehensive overview of the projects was presented to investors at a capital markets event in September and can be accessed on our website: http://www.umicore.com/en/ cases/horizon-2020/

In 2015, the Executive Committee undertook four dedicated technology reviews and the company also established an Innovation Excellence Board (IEB) composed of senior R&D managers. The objective of the IEB is to further improve innovation management in the group.

Umicore promotes open innovation and in 2015 we continued to develop our collaboration network with universities and research institutes around the world. We hosted close to 130 internships for students as part of their masters and bachelors' studies and directly sponsored 18 PhDs and post-doctoral students over the course of their studies. Umicore holds six quest professorships at universities and Umicore research and technical staff conducted numerous lectures at universities around the world. We also have numerous university partnerships for research and the sharing of services and infrastructure.

In March 2015 we awarded the Umicore Scientific Award to

Stefan Knoppe for his PhD work at the University of Geneva on the synthesis, size-selection and stereochemical characterization of thiolate-protected gold clusters. Stefan's entry was one of 40 submitted from all over Europe. Four Masters students working in Belgium were also rewarded for their work. The main Award is granted to a PhD graduate who, through his or her research, contributes to science in those fields that are crucial both to the growth of Umicore's business and the development of a sustainable society. These areas are: fine particle technology and applications; recycling technology; sustainable energy related topics; catalysis and, finally, economic or societal issues linked to metal-containing compounds. Since its launch in 2007 Umicore and its partners have judged over 360 entries and awarded € 155,000 to 38 scientists across Europe.

The Umicore share

Umicore's share price was 16% higher at the end of the year compared to the end of 2014, (\in 38.67 vs \in 33.31). This was compared to an 8% increase in the Euronext 100 Index of the largest 100 companies quoted on the Euronext stock exchange and an increase of 13% of the Bel20 Index of the largest Belgian companies. During the year we retained our place in the FTSE4Good sustainability index and a number of other sustainability oriented funds.

Economic review

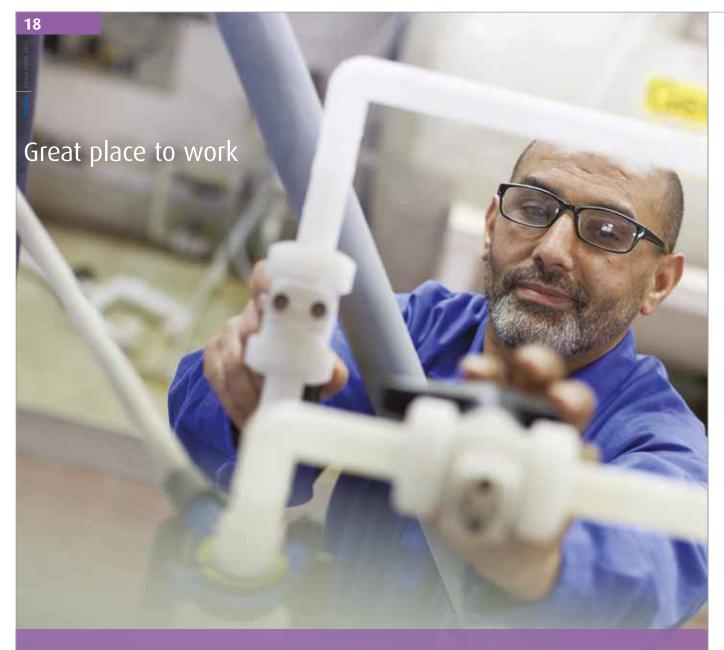
At the end of 2015, four investment companies had holdings in Umicore that were above the declaration threshold of 3%. These companies had combined declared holdings of 26.17% at year's end, by far the largest of which was GBL with a stake of 15%. In the course of 2015, Umicore bought back 920,000 of its own shares. During the year 873,338 shares were used in the context of exercised stock options, while another 33,400 were used as share grants to the members of the Board of Directors and Executive Committee. At the end of 2015 Umicore held 3.51% of its own shares in treasury.

Dividend

The Board of Directors will propose a gross annual dividend of € 1.20 per share at the Annual General Meeting on 26 April 2016. This represents an increase of 20% compared to 2014, a pay-out ratio of 53% based on recurring EPS of €2.27 per share and a yield of 3% based on the average share price of 2015. Taking into account the interim dividend of € 0.50 per share paid out on 3 September 2015 and subject to shareholder approval, a gross amount of € 0.70 per share would be paid out on 2 May 2016.



Go straight to the numbers



By 2015 we had met most of our Vision 2015 goals with safety performance being the sole exception.

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"There have been some encouraging signs to show that a zero accident workplace is an achievable goal."

Great place to work



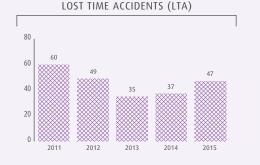
Zero accident

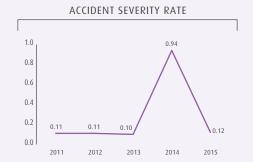
Umicore defined an objective of becoming a zero accident workplace by 2015. Overall the safety results for the period 2011 to 2015 show a notable improvement compared to 2010 and any prior year although falling short of the ultimate objective. Safety performance has deteriorated somewhat in the past two years following a strong improvement from 2011 to 2013.

In terms of year-on-year safety performance, the number of losttime accidents was higher in 2015 (47) compared to 2014 (37) and the accident frequency rate therefore increased from 2.16 to 2.66. The accident severity rate was 0.12. The business group that recorded the highest number of lost time accidents is Recycling.

While the overall evolution is not satisfactory, there have been some encouraging signs that show that a zero accident workplace is an achievable target. The percentage of sites that were able to operate with no lost-time accidents remained high at 85% (compared to 84% in 2014). Six business units were able to operate for the full year with no lost-time accidents and for the first time a site reported 10 years with no lost time accident or recordable injuries to Umicore staff and no lost time accidents involving contractors. Six sites achieved the three year benchmark and four sites achieved the five year benchmark.

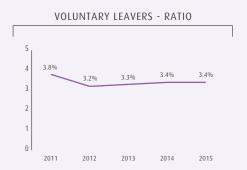
Umicore held the fifth edition of its Safety Award in 2015. The winner was Joseph Branch, who works at the Thin Film Products site in Providence (US). He was chosen by a jury from a field of 50 submissions covering more than 200 people. The jury also decided to give a special recognition to Carole Mehl, plant manager at the Cobalt & Specialty Materials site

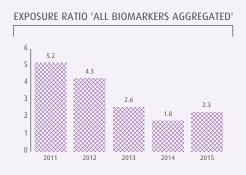




AVERAGE TRAINING HOURS PER EMPLOYEE







in Arab, US. The award is designed to encourage all employees to take ownership of safety in their own workplace and to encourage the sharing of best practices throughout Umicore.

In the context of the Horizon 2020 objectives Umicore will continue to pursue the goal of zero lost time accidents.

In 2015 the Group-wide process safety project made further progress with a number of onsite visits and inspections and the deployment of Group-wide safety standards and guidance notes. The project team engaged in workshops with all industrial sites, which were attended by several hundreds of colleagues. In addition to the process safety e-learning for employees involved in process safety, the project team embarked on the development of an in-house software to facilitate the process of risk identification and the implementation of risk reduction measures.

People development

As an employer we have a responsibility to give our colleagues opportunities to develop and grow. This can cover many aspects – from learning and development possibilities, regular feedback, to talent management and succession planning. One of the objectives to be achieved by 2015 was to ensure that all employees receive an appraisal at least once a year regarding their personal development.

Our initial findings in 2011, the first year for which we collected groupwide data, showed that 87% of all employees received such an appraisal. By the end of 2015, 96% of employees had received an appraisal. A level of 100% was not reached due to recent acquisitions and recruitment related to growth investments which indicates that the small shortfall is of a temporary nature. Over the five year scope of Vision 2015 the drive to improve the breadth and depth of access to learning and development opportunities should therefore be considered a success.

One indication of people development is the intensity of training. For several years the average number of training hours per person has stabilized at around 45. In 2015 we continued to focus on on-the-job training where learning is focused on hands-on practical experience and / or integrated into the day-today work environment. The many "Lunch & Learn" seminars held throughout the year again covered a wide range of topics, from knowledge creation and management to the contribution of Umicore materials to a "better life".

In 2015 Umicore made further progress towards completing the deployment of the My Campus learning management platform. This platform aims to create a more collaborative workplace - an aspect that was identified as a key development area in the 2010 People Survey. My Campus provides an online platform for blended learning where employees can access many different types of training and personal development possibilities, including e-learning modules such as for sustainable procurement and performance management. The platform also supports the talent and performance management processes and hosts a collaborative networking tool. At the end of 2015 some 85% of all Umicore employees had access to the platform compared to 80% at the end of the prior year.

In 2015 Umicore conducted its biennial talent review process for management. This process provides a robust framework for guiding career development and succession planning at Umicore. In terms of leadership development the company launched a new senior leadership programme at the INSEAD business school which is intended to hone the skills of leaders in areas such as strategic business thinking, the Asian business context and personal leadership. The initial edition of this programme involved 36 senior executives.

Preferred employer

Attracting and retaining people is a constant challenge, particularly in technology-intensive sectors such as the ones in which Umicore is present. We based our 2015 preferred employer objectives on the results of the 2010 People Survey. Each site was expected to have a plan in place to be considered as a preferred employer in its own operating context.

By the end of 2015, 96% of the sites had a plan to be considered as a preferred employer, compared to a level of 70% in 2011. This represents a very high level of achievement of the Vision 2015 goal. Furthermore, by the end of 2015 69% of employees worked in a site that was considered as a preferred employer in its local context, a level that is well above the 53% of 2011.

In some countries preferred employer programmes exist that offer high levels of visibility and recognition.

All the sites in Belgium, France and Brazil as well as the largest sites in Germany once again obtained such national recognition as a Top Employer in 2015. This certification demands completion of a stringent research process and audit in order to meet the required standards. The Top Employers Institute assessed Umicore's employee offerings on criteria such as talent strategy, workforce planning, welcoming new employees, learning & development, performance management, leadership development, career & succession management, compensation & benefits and company culture. The Top Employers Institute concluded that Umicore provides an outstanding employment environment, and offers a wide range of creative initiatives, from secondary benefits and working conditions, to performance-management programmes that are well thought out and truly aligned with the culture of the company.

The Hanau site was once again awarded the Berufundfamilie certificate in recognition of its family-conscious approach. The site has been granted this recognition every year since 2007.

In 2015 the employee turnover rate was stable at 3.4%. As in previous years – and in line with regional patterns – the turnover ratio was highest in Asia Pacific



where many countries have a highly competitive and fluid labour market.

In 2015 Umicore and

the IndustriALL Global Union renewed their Global framework Agreement on Sustainable Development for a period of four years. The agreement covers human rights (including collective bargaining and equal opportunities), safe and healthy working conditions and environmental considerations. Umicore hosted a Monitoring Committee visit at its Cobalt & Specialty Materials operations in Subic, Philippines, The visit focused particularly on working conditions; safety & hygiene; environment; and engagement with the local community. A tour of the plant and meetings with local union representatives allowed the delegation to confirm that Umicore is fully meeting the commitments defined in the global agreement.

The pilot mentoring programme carried out in 2014 inspired the Umicore "focus on women" network to start a "Coaching Circles" program, which was launched in December 2015. These Coaching Circles form a 5-step development program for female managers with a focus on training, networking, coaching and mentoring. As such, they are an element of the diversity and inclusion initiatives at Umicore. The selection of candidates for the first intake was aimed to ensure a diverse mix of participants based on business unit, site and experience level.

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 (particularly arsenic, cadmium, cobalt, lead, nickel and

platinum salts) as well as physical hazards (mainly noise). We have established target reference levels for occupational exposure to potentially hazardous substances. These are inspired by the American Conference of Government and Industry Hygienists (ACGIH) and are at least as strict as any legal limits in force in countries where we operate. The Vision 2015 objective in respect of occupational exposure has been 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 in that specific workplace. All employees with a potential workplace exposure to one of the target metals (arsenic, cadmium, cobalt, nickel, lead and platinum salts) or other metals are monitored by an occupational health programme.

Overall we made very good progress on occupational exposure between 2011 and 2015. At group level we detected an excess rate of 2.3% in 2015 which represents a significant decrease compared to the level of 5.2% in 2011, the first year for which we collected group-wide data. This means that, of the 4,764 readings from employees who have a workplace exposure to the metals mentioned above (excluding platinum salts), 110 individuals returned at least one reading that indicated a metal exposure that was above our target level. In terms of year-on-year evolution we recorded an increase compared to the 2014 level of 1.8%. The main reason for this was higher excess readings detected in Energy & Surface Technologies related to cobalt exposure. This was

Great place to work

likely caused by a significant increase in production.

In 2015 no new cases of platinum salt sensitization were diagnosed.

Umicore and the US National Institute for Occupational Safety & Health (NIOSH) continued work on a project to evaluate the effectiveness of preventive measures to control employee exposure to Indium Tin Oxide (ITO) at our plant in Providence, USA. NIOSH carried out further evaluation of employees and industrial hygiene tests the results of which are anticipated in 2016.

While excellent progress has been made in reducing occupational exposure this will remain one of Umicore's priorities for the period 2016 to 2020 as part of the Horizon 2020 strategy.

CASE

Introducing Horizon 2020

In early June 2015 Umicore announced its Horizon 2020 strategy. Within a few weeks a series of worldwide roadshows had ensured that all employees understood the new strategy and their role in achieving it

A 2014 people survey showed that employees wanted more guidance about Umicore's strategic direction. In this context, a largescale communication campaign was developed to address our employees' eagerness to learn more about Umicore's future business developments.

Preparations for the communication campaign began in early 2015. Many of the best practices were held at Umicore sites worldwide, covering all business units. The aim was to have a dialogue with a maximum of people in a short period of time.

Face-to-face contact

It was a considerable undertaking. CEO Marc Grynberg and members of the executive committee travelled to the larger sites, while members of the broader senior

"Fully 92% of respondents reported a good understanding of the strategy and goals."

from the previous strategy launch were adapted for Horizon 2020. Senior management was involved early in the process to allow more time to translate global strategy into specific messages for each business unit and region. And they were equipped with a tailor-made communication kit to ensure consistent messaging.

On 3 June all employees were informed about Horizon 2020 via an internal communication that included an explanatory video. A centrepiece of the campaign was the senior management roadshow. In June more than 100 Horizon 2020 information sessions management team visited other sites. The largest sites required a dozen or more back-to-back sessions to accommodate all employees across different shifts.

Proceedings began with a short address by CEO Marc Grynberg, either live or via a video presentation. This was followed by an animated movie about Horizon 2020 that made the link between the previous five-year strategy and the new one. Afterwards, there were specific business unit presentations.

Every session ended with a Q&A that allowed employees to

directly question senior managers. This face-to-face contact was greatly appreciated. People most wanted to know how Horizon 2020 would affect their work. A list of the most common questions – answered by the CEO – was featured in a Horizon 2020 supplement to the global employee maaazine. umicore.link.

Positive results

Once the roadshow series ended an evaluation survey was conducted to learn how people perceived Horizon 2020. Fully 92% of respondents reported a good understanding of the strategy and goals. Furthermore, 86% believed it was the right direction for the company and 80% felt it was right for their particular business unit.

The roadshows may have finished in early summer but the campaign was far from over. The work of translating the new strategy into specific messages for business units, departments and smaller divisions continued throughout the year. Regular updates make sure employees remain informed about the changes Horizon 2020 is already bringing to the company.

During the campaign a great effort was made to have face-to-face contact with everyone in the organisation. This shows how strongly senior management believes in Horizon 2020. It also shows that Umicore has the right people to deliver the strategy – and how everyone has a role to play.



Annual report 2015

Umicore

Great place to work



In Guarulhos, Brazil, employees could discover Horizon 2020 during interactive information sessions with senior management. Two employees give their impressions.

SOLANGE MANTOVANI, Accounting Manager

I learned about Horizon 2020 at a well-prepared presentation for managers from the plants in Guarulhos, Americana and Manaus. It was good because we do not have many opportunities to receive information directly from the people who make the decisions. It is difficult to be part of a strategy if you don't understand it. So, it is important to know the objectives to figure out how to contribute. Selecting three key words to describe the Horizon 2020 strategy, I would choose focus, productivity and simplicity. In my opinion, there are two main challenges for achieving the goals. First, cultural change is needed. Changes are not always easy, but should be seen as opportunities for improvement, not threats. Second, to be more productive and simple we need to adapt our methodology and processes to be even more structured and resilient.

GABRIEL NOGUEIRA, *Senior Engineer*

A general Horizon 2020 presentation for all employees took place in June at our site, presented by our Executive Vice-President, Stephan Csoma. In August, Senior Vice-President Precious Metals Refining Luc Gellens presented specific business unit targets. It was a very clear and transparent communication process, first to everyone regardless of level, and later providing details to each business unit.

In an evaluation survey conducted after the Horizon 2020 communication campaign, employees were asked to describe the Umicore strategy in three words. I appreciated how senior management took the time to explain the strategy. It promotes motivation, trust and respect. People need to know about strategy so they can align it with their daily activities. I would describe Horizon 2020 as structured, because it is aligned with Vision 2015 and the company values; focused, because it links better results to actions for boosting efficiency; and motivating, because the objectives are ambitious.



We met our Vision 2015 environmental goals on emissions and product sustainability.

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"The impact of our metal emissions to air and water was reduced far beyond the 20% reduction target."

Eco-efficiency

Umicore

Carbon emissions

Public policies in many regions of the world are responding to climate change and the challenge to reduce society's carbon footprint. This is apparent from international agreements supplemented with multiple national or regional initiatives and commitments. Umicore is present in many product and service areas that can make a positive contribution to the world's energy and carbon footprint challenges and our Vision 2015 strategy identified significant growth opportunities in industries that are linked to the response to these challenges, for example electrified cars and recycling.

In terms of our operations, we chose to pursue specific actions to reduce our carbon footprint and to further increase energy efficiency. In order to frame this approach we introduced an energy efficiency and carbon footprint policy in 2011.

The main pillar of this policy was the Group objective to achieve by 2015 a 20% reduction in CO₂ equivalent emissions compared to the reference year 2006 and using the same scope of activities as 2006 (see note E3 for more details).

Other aspects covered by the policy are:

- **Capital investments:** all capital investments must be reviewed for carbon neutrality.
- Acquisitions: we will incorporate carbon intensity criteria in our assessment of acquisitions.
- People and mobility: all employees are to be encouraged to make use of low carbon or carbon neutral mobility.

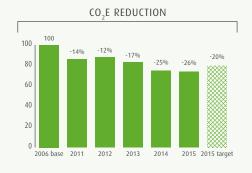
• Scope 3 CO₂ emissions: we will participate actively in the development of an appropriate accounting system of our Scope 3 emissions so that we can demonstrate the contribution of our products and services to a low carbon economy.

By the end of 2015 we had achieved a 26% reduction compared to the 2006 benchmark year. This means that for equivalent production levels we emitted 26% less in carbon equivalent.

The achievement of the target has been driven by a combination of specific internal projects and external factors. Energy efficiency projects, changes in our own fuel mix, and projects aiming at a better use of our production capacity all contributed to the reduction in carbon emissions. However, the raw materials mix played a significant role in determining CO₂e emissions with the recycling processes for some residue streams requiring less energy and emitting lower levels of CO₂ equivalent than for other residue streams. The level of scope 2 emissions also contributed to the reduction as a result of a less carbon-intensive energy mix on average in the countries where Umicore operates, particularly in Europe.

For those sites that were part of Umicore at the end of 2010, and excluding the activity adjustment for measuring progress against the objective, the absolute CO₂e emissions at the end of 2015 were at the same level as the emissions in 2006 despite the increase in production. Please see the environmental statement E3 for full details.

In the scope of Horizon 2020, Umicore will focus on making and reporting on further improvements in energy efficiency. The learning of the past five years indicates that specific carbon emission reduction



targets are no longer appropriate given the significant impact of external factors that lie beyond Umicore's control.

Metal emissions

As part of our environmental management approach we have for many years been monitoring and taking steps to reduce emissions of metals into the environment – both to water and air. Our sites operate well within the established regulatory and permitting requirements in the countries where we are present.

Each of the metals that we emit has a very different level of potential toxicity for the environment and human health. With this in mind we developed an objective for 2015 that sought a 20% reduction in the environmental impact of the metals we emit compared to the levels emitted in 2009. Although our focus was on minimizing the emissions of those metals with the highest potential toxicity we also took steps to reduce the emission volumes of other metals We have used a specific methodology for establishing 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 the impact factors as they relate to human health. For water emissions the impact factors are based on the predicted no-effect concentrations (PNEC) that are, among others, used in the EU's **REACH** regulation.

In comparison to the reference year of 2009, by the end of 2015 the overall impact of our emissions to air had been reduced by 37%. This means that we have gone far beyond the 20% reduction target which was defined as part of Vision 2015. Over the five year scope of the objective the main reasons for the significant reduction have been the reduction of cobalt emissions in the Energy & Surface Technologies business group as well as the reduction of arsenic and cadmium emissions in Recycling.

Umicore Annual report 2015

In comparison to the benchmark year of 2009, by the end of 2015 the overall impact of our emissions to water had decreased by 26%. As is the case for air emissions (see above) this means that we have gone far beyond the 20% reduction target which was defined as part of Vision 2015. The most significant element in this positive evolution has been the reduction of cobalt. nickel and silver emissions in the Energy & Surface Technologies business group. As anticipated there was a significant improvement at the Hoboken plant from 2014 to 2015 thanks to the successful implementation of the project to cope with storm water.

Umicore will aim to consolidate these significant improvements and ensure that the performance is at least maintained at the current sustainable levels.

Product sustainability

We believe that it is essential to develop a full understanding of the impact that our products have on the world from an ecological, social and economic standpoint. With this in mind we established a specific product sustainability objective as part of our Vision 2015 strategy. This objective required us to invest in tools to better understand and measure the life cycles and impacts of our products. This understanding can play a critical role in helping us demonstrate the sustainability of our product offering, something that is at the core of product differentiation and competitive advantage for certain applications.

Over the last five years, Group R&D and Corporate EHS have developed a methodology specific to Umicore for assessing the sustainability of products and services. This methodology is called Assessment of Product (and services) Sustainability (APS). The methodology uses a tool consisting of a set of preformatted questions and answers with scoring and weighing factors and organized around eight themes. During 2011 a dedicated team of R&D, EHS and business unit experts ran three pilot assessments to establish the workability of APS. The aim was to test six products or services each year between 2012 and 2015 with each business unit submitting two cases to the study.

The 23 cases assessed in the period 2011-2014 comprise products and services deployed in niche markets, 'flagship' products and services as well as a product under development. By the end of 2014 the number of products and services screened using the tool amounted to the equivalent of 18% of Umicore's 2014 revenues. In 2015 we made use of the understanding and knowledge about sustainability and life cycles to provide input in the development of the Horizon 2020 sustainability objectives.

In 2015, 48% of Umicore's incoming materials were of primary origin. 52% of the materials were from secondary origin or end-oflife products.

In regard to REACH, as part of regular maintenance, about 20 REACH dossiers have been updated in 2015 with new information on composition, uses or Chemical Safety Report. Four of them were updated in line with a request of ECHA, including additional study results. Also 6 new registrations were submitted. For comments on our on-going REACH compliance efforts please refer to Environmental note E6.



Eco-efficiency



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CASE

The reduction of metal emissions to air and water has been one of the priorities of Vision 2015. Focussing on the emission reduction of metals with a high impact on the environment has led to significant results.

Integral to the Vision 2015 strategy plan was a range of sustainability objectives, including improvements in metal emissions to air and water. Umicore had already been reducing these emissions. The difference this time was that we were aiming for a more quantitative, objective way to measure progress.

Focussing on impact

Metal emissions can be measured in different ways. One is quantity: how much metal is in the air or water. Umicore's methodology takes a different approach, based on impact.

Each metal has a different effect on humans and the environment. For example zinc is not considered particularly toxic. In fact, small amounts are essential for health. By contrast, arsenic has a bigger impact on health and the environment than the same quantity of zinc. Emission reduction at Umicore has concentrated on the metals that have the most efficient use of resources for emissions reduction.

Umicore's methodology measures this in a quantifiably way. 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).

 by the findings of the American Conference of Governmental Industrial Hygienists. This organisation has been defining occupational exposure limits for toxic substances in the workplace for more than 75 years.

As the reduction of air emissions

is aimed at avoiding adverse effects on human health, the methodology to derive impact factors

"Reducing our environmental footprint is part of being a sustainable company."

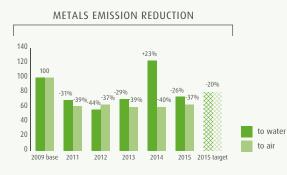
New methodology

Group R&D was asked to devise a methodology that should be able to withstand scientific scrutiny.

To define the impact factors for water emissions, Umicore's R&D experts recommended to base their methodology on REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals. It is the European Union's regulation on chemicals safety and it defines emissions of toxic substances to water. It is considered the strictest such law in the world.

Meeting targets

Using our 2009 figures as a benchmark, Umicore has succeeded in far exceeding its Vision 2015 reduction targets for air and water (*see chart*).





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Umicore

Eco-efficiency



Air & water

Here are two examples of how Umicore sites around the world are improving the quality of their air and water emissions.

GLENS FALLS,

When Umicore's Vision 2015 sustainability targets were set in 2009, cadmium was identified as a metal of concern. This was applicable to the Technical Materials plant in Glens Falls, New York, in the US. The site's EHS Manager Terry McCormack explains. "To reduce the level of cadmium in air emissions here, the EHS, maintenance and engineering teams collaborated in a project to rebuild the existing dust collector and improve its efficiency." The work was completed in a few months, he says. Along with the rebuild, a more stringent preventative maintenance plan that included daily measurements was put in place. In addition, a new alarm system sends an alert if airflow to the collector is blocked. And a new back-up generator makes sure the collector keeps operating in the event of a power loss. Terry concludes, "The new dust collector also saves costs, because we now have less waste to dispose of. We believe we can further reduce cadmium emissions in the future."

OLEN, Belaiur

"As part of a wider emissions reduction project, we cut cobalt emissions to water by 76%, silver by 83% and nickel by 67% compared to 2009 levels" explains Jan Casteels, Senior Manager Environment in Olen, Belgium. This major achievement was realised by improving wastewater treatment facilities at the plant over several stages starting in 2009. The last stage, completed in April 2015, saw the construction of a new 'pre-settling' tank designed to remove more sediment from the wastewater. Working together, internal, external and governmental partners have since conducted a large-scale wastewater assessment at Olen that confirms the success of the metal reduction project. "We're now studying further reduction projects for other metals and chemicals," says Jan.

Stakeholder engagement

Stakeholder engagement encompasses dialogue with a diverse range of partners and at all levels of the company.

Sustainable supply chain

Umicore's commitment to its suppliers in terms of conduct and practices is outlined in the Sustainable Procurement Charter. In return Umicore requests that suppliers adhere to specific standards in terms of environmental stewardship, labour practices and human rights, business integrity and supply chain engagement. In the course of 2015, our procurement teams and business units continued to select key suppliers based on criteria such as size, geographical location and type of product or service provided (including whether critical to the functioning of a Umicore entity).

The companies selected included suppliers of goods and services as well as some suppliers of raw materials. In total, 1,336 suppliers were invited to adhere to the charter,

compared to 1,226 at the end of 2014. By the end of 2015, 83% of these 1,336 suppliers had formally acknowledged their adherence to the terms of the charter.

In addition to the roll-out of the charter, sustainability performance of specific suppliers is assessed by Ecovadis. In 2015, the procurement teams identified 47 suppliers for CSR assessment. The selection of those suppliers by Umicore was based on the above mentioned risk assessment in relation to critical dependency, geographical presence and spend with these suppliers.

The result of the assessment is a score card with an overall score and a score for each of the four sustainability categories: environment, labour practices, fair business practices and sustainable procurement. The scores ranged from 1 to 100 with 1 representing a high risk regarding sustainability issues.

Stakeholder engagement

Of the 47 selected suppliers, 7 suppliers did not respond to the questionnaire or did not complete the assessment process. Of the 40 received score cards, 22 companies had a score between 25 and 44, meaning that they have taken basic steps on sustainability issues. Only 1 company had a score equal to 20, representing a high risk regarding sustainability issues. 14 companies scored, overall, between 45 and 64, meaning that they have "an appropriate sustainability management system" and 3 companies scored higher, showing advance practices on sustainability.

Since 2011, the scores of the assessed suppliers is in 44% of the cases above the current Ecovadis community average score of 42 which means that these suppliers have reached the level of being "engaged in CSR" in their overall business approach.

In October 2015, the Umicore Group was re-evaluated by Ecovadis and was scored 73, confirming the company's advanced practices in sustainability with a "structured and proactive CSR approach, engagements / policies and tangible actions on major issues with detailed implementation information and significant CSR reporting on actions & performance indicators". The progression from the 2013 score of 67 reflects improvements in the areas of Environment and Sustainable Procurement. Since 2011 a webbased learning tool has been available to all employees on the My Campus learning platform to promote awareness of sustainable procurement. Over the course of this period 219 people have completed the learning module.

In the framework of Horizon 2020 more emphasis will be put on the management of our key raw materials supply requirements as well as seeking to ensure that Umicore's efforts in the field of ethical sourcing can generate a competitive edge for the company. As the raw materials landscape for each business unit is very different these aspects will be initiated and managed by the business units themselves. The experience gained since 2011 by Umicore's Purchasing & Transportation teams on the Sustainable Procurement Charter roll-out and the Ecovadis sustainability assessment will be further shared with the business units.

In 2012 the U.S. Securities and Exchange Commission (SEC) issued a final rule on conflict minerals based on section 1502 of the Dodd-Frank Act. This rule obliges US stock listed companies to declare whether the tin, tantalum, tungsten and gold in their products have originated from the Democratic Republic of Congo or an adjoining country. While Umicore is not itself subject to the reporting requirements of Dodd-Frank, we use the above rulings as a guideline for our business. In this regard, our Precious Metals Refining operations in Hoboken and Guarulhos were certified as "conflict-free smelters" in 2015 for their operations of the previous year by the London Bullion Market Association (LBMA). The Jewellery & Industrial Metals operations in Pforzheim, Vienna and Bangkok are certified as part of the Responsible Jewellery Council's (RIC) Chain of Custody programme until 2016. The sites in Guarulhos, Amsterdam, Pforzheim and Bangkok are also accredited by the LBMA as Good Delivery refiners. In 2014 the business unit Jewellery & Industrial Metals also passed the audit for responsible platinum sourcing by the RJC. Both the RIC Chain of Custody and LBMA Good Delivery accreditations qualify the accredited sites for listing in the EICC (Electronic Industry Citizenship Coalition) Conflict Free Smelter List.

DONATIONS thousand € 2.000 1.751.02 1,759.18 1.612.80 1,500 1,409.35 1.219.38 1,000 500 2011 2012 2013 2014 2015 Staff freed time Donations in kind Cash donations



Aiding victims in Nepal

On 25 April 2015 a severe earthquake hit Nepal. The death toll was more than 8,000 and hundreds of thousands of people were made homeless.

Umicore employees in India were moved to help the people of their neighbouring country and launched an appeal. Employees at all levels generously donated a day's salary to a government trust, the Prime Minister's National Relief Fund. The money is supporting a variety of projects in Nepal, from aiding children to reconstruction. 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 highrisk areas".

http://www.umicore.com/ en/media/topics-of-interest/ conflict-minerals/

Local community

In the context of Vision 2015 Umicore decided that community engagement was sufficiently important to continue working towards further improvements in our dialogue with the communities within which we operate. More focus was placed on the depth of stakeholder analysis and the engagement processes that the sites employ. The Vision 2015 target was for all industrial sites to have in place a suitable plan regarding accountability to their local community. By the end of 2015 some 99% of our sites had such a plan in place compared to 58% in 2011. This represents an excellent level of achievement of the five-year goal.

With regards to the communication process itself this varies site by site. Depending on the size of the site, these communications can include newsletters, public hearings, meetings with local authorities, plant visits for the local community and press releases provided to local media.

Of our larger sites, Hoboken (Belgium) hosted 444 visits involving 3,535 people in 2015, mainly focusing on students and neighbouring schools and organisations from adjacent communities. The Olen site (Belgium) developed, in collaboration with the educational foundation Arkades, an educational package offered to schools in the region. Targeted at pupils in the last years of primary education, it includes course assignments and practical experiments to playfully bring business basics to pupils and introduce them to sustainable technologies. The site cooperated with the municipality for the organization of the "birthwood" planting initiative for local and employees' children born in 2011 and 2012. This event brought about 600 visitors to the site. In Guarulhos (Brazil) we continued to engage with the local authorities regarding the issue of groundwater pollution around the site and supported the "Better Life" projects for more than 120 disadvantaged children in the community.

At the Hanau site the fifth Christmas market organized by Umicore employees was attended by 400 colleagues and resulted in record proceeds that were contributed to an organization that provides Christmas gifts for economically disadvantaged local families such as warm clothing for children or simply paying the energy bill. The Umicore operations continued to host a number of internships for students from local schools and cooperated with the "Umweltzentrum Hanau" (Environmental Centre Hanau) and the "Zentrum für Chemie" (Centre of Chemistry) to sponsor scientific education for children.

Charitable donations make up part of the community engagement programmes of the sites. Each business unit is expected to contribute approximately one third of one percent of its average annual recurring consolidated EBIT for the previous three years to charitable projects – either in cash, volunteer time or in goods or services. Each site then defines its own initiatives and contributions using the guidance of its parent business unit. Overall the business units contributed a total amount of € 747,390 in 2015.

In addition to the business units' contribution, the Group donated € 471,991, the vast majority of which came in the form of financial contributions. In contrast to donations at site level, which have a local focus, the Group level donations have a global reach. Umicore seeks to channel most of these contributions to initiatives that have an educational focus or raise awareness of sustainable technologies. Some 15% of the total amount donated (Group and business units combined) came in the form of volunteering and donations in kind. The total donation amount as a percentage of Umicore's average fully consolidated recurring EBIT of the previous three years was at 0.4% - similar to the level of 2014.

In 2011 Umicore entered into a three-year partnership with UNICEF to support educational projects in different parts of the world. This partnership was renewed in 2015 and the two on-going projects that we supported during the year were an initiative to improve the access to quality

d:

Volunteers in China

"Love without boundaries." This motto of the Boai School in Suzhou was demonstrated last year when Queen Mathilde of Belgium dropped by during an official visit to China. The school provides healthcare, education, accommodation and rehabilitation for disabled children. Since 2009 Umicore Automotive Catalysts China has supported the nearby school financially. Employees volunteer their time. Like our Umicore volunteers, Queen Mathilde spent time with the children, reading to them.



Umicore

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education for underprivileged girls in the Rajasthan province of India as well as an educational project in Madagascar.

Umicore continued to support the initiatives of Entrepreneurs for Entrepreneurs (www.entrepreneurspourentrepreneurs.be) in the Philippines, Cambodia, Democratic Republic of Congo and Haiti and Humasol's programmes for groups of engineering students to install solar energy in remote areas of Uganda and Cambodia (www.humasol.be). Umicore developed its "Powered by Umicore" sustainable mobility initiative further in 2015 with the inclusion of a team in the United States. This initiative provides financial and other support to student projects to develop vehicles powered by batteries, solar energy or fuel cells. You can find out more about Powered by Umicore on our website http://www.umicore.com/en/ cases/powered-by-you/ or via the teams' Facebook page https://www.facebook.com/#!/ UmicorePoweredByYou

CASE



Schools in Madagascar

In 2011 Umicore began a long-term partnership with UNICEF to fund education initiatives in developing countries. A new project is bringing classrooms to one of the world's poorest countries.

Madagascar, the world's fourthlargest island, lies off the coast of Southeast Africa. It is one of the planet's richest biodiversity hotspots, yet also home to a fast-growing population, 90% of whom exist on less than two dollars a day.

UNICEF is working to combat child mortality and poverty on the island. "Education is a big part of this programme, explains Matthias Lansard, head of UNICEF's education mission in Madagascar. "We estimate that more than 1.5 million children aren't in school. There's very little school infrastructure."

Eco-friendly construction

UNICEF has targeted seven priority regions for a school-building programme. One is Boeny, on the northwest coast. In rural villages there UNICEF built 12 schools in 2015, one of which is funded by Umicore.

Schools are constructed in an eco-friendly way. Instead of importing materials from overseas, local materials are used. Mud bricks - highly compressed for strength and resistance - take the place of cinderblocks. Every **UNICEF** school includes sanitation facilities, says Matthias. "Basic hygiene is integral to the UNICEF approach. When there are no means to wash it can lead to outbreaks of infectious diseases."

Community ownership

Each school includes two classrooms. With 43 students on average in a class and with separate morning and afternoon sessions, a single school can serve more than 170 children. Schools are fully furnished with desks, chairs and a blackboard. Outside a playground is built. Trees and even vegetable gardens are planted.

"We try to involve local people in the project," Matthias says. "It's important that communities feel ownership, so they maintain the building in good condition. We are very thankful to Umicore. Every new school makes a big difference to the life of the community."

horizon 2020

Horizon 2020 represents continuity with Umicore's strategic choices of the past decade and sets out a further series of challenging economic, social and environmental goals for the company.

From an economic perspective the period 2011 to 2015 – which involved the pursuit of our Vision 2015 goals – illustrated clearly that the major megatrends that underpinned Umicore's growth prospects were strengthening. The need for cleaner mobility and the increasing scarcity of resources have become two of the most pressing issues facing societies around the world. The one area where the landscape shifted significantly was in photovoltaics where a combination of economics and technology choices led to a less favourable market for Umicore's higher-end solutions. Umicore has outstanding growth prospects in those products and services that are based on the drive towards cleaner mobility (automotive catalysts and rechargeable battery materials) as well as in those areas that tackle resource efficiency through our closed loop business model that ensures the recycling of precious and specialty metals. These activities will be at the heart of our ambition to double the earnings of Umicore by 2020.

In terms of environmental and social performance we have made great strides in the past 10-15 years. Our Vision 2015 achievements have set a strong benchmark in a number of areas such as metal and carbon emissions, employee and stakeholder engagement and working towards a sustainable supply chain. The challenge for the coming five years is to ensure that we maintain the progress that we have made in certain areas, continue focusing on topics such as safety where we fell short of our goals and to strive to develop goals that have a clearer ability

to enhance Umicore's competitive positioning. Let us look at three examples to illustrate this approach:

Holding onto the benefits

- metal emissions. Between 2011 and 2015 we drove down the impact of metal emissions to air and water by some 30% on average. This was well beyond the target of a 20% reduction that we set at the beginning of the process and our emission levels are at levels that are not only well below the legal norms set in any country where we operate but are setting the standard in our industry. Although we no longer see a need to set a further reduction objective we will of course continue to measure and report on the impact of metal emissions when relevant from a materiality point of view.

Could do better – safety. Umicore has set a goal of becoming an accident-free company. Although the objective was achieved in the vast majority of our industrial sites which showed that this is an achievable goal, the reality between 2011 and 2015 was that safety remains a challenge in a limited number of sites. We will therefore continue to pursue the zero accident goal over the course of the coming five years.

Competitive advantage – sustainable sourcing. In the period 2011 to 2015 Umicore made good progress in rolling out its Sustainable Procurement Charter to its suppliers and has developed a reputation for ethical sourcing. This approach is aligned with Umicore's values and is undoubtedly the right thing to do. However, it has an economic cost

Jmicore

that to date has not been matched by the prices that customers are willing to pay for such ethicallysourced materials. Horizon 2020 will see Umicore look to leverage this sustainable sourcing approach to generate an enhanced competitive edge in specific business units.

A value chain approach

Horizon 2020 adopts a more conscious view of Umicore's presence in the overall value chain. The objectives that you can explore on the pages overleaf cover Umicore's presence and impact upstream, for example through the interaction with suppliers, in our own operations and also downstream in terms of the impact of our products and services. We have developed specific objectives in each of these areas and in order to maintain a sense of continuity with the work done in the past we have largely maintained the clustering of the various themes: Economic, Eco-efficiency, Great Place to Work, Value Chain & Society. There is very much an overlap and connectivity between these themes - an improved level of efficiency in operations should have positive economic benefits...the success of environmentally-friendly products tends to enhance employees' sense of pride and engagement...responsible management of the supply chain should lead to economic benefits.

Covering the material risks and opportunities of Umicore

Horizon 2020 represents a strong focus on what is of material importance for Umicore in the coming five years in terms of opportunities and risks. As such it represents a good thermometer in determining whether Umicore is achieving its potential. In developing the strategy the Executive Committee



conducted a thorough assessment of the achievements and shortfalls of Vision 2015 and reviewed and tested the continued validity of the megatrends that drive Umicore's business. This assessment was road-tested with the broader senior management team in the spring of 2015 with the strategic framework being presented to all employees during spring 2015. You can read more about this process on page 22. The strategy was then presented to shareholders and other investors at a dedicated capital markets event in London in September 2015 and met with a positive reaction. As we needed more time to understand the level of achievement of the Vision 2015 social and environmental goals the Horizon 2020 objectives in these areas were formulated in early 2016. The process involved a structured dialogue with

the management of each business unit – particularly 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 on-line stakeholder survey. The objectives were debated and ratified by the Executive Committee in February.

Reporting

Umicore's 2016 annual report, to be published in March 2017, will mark the first year of reporting on the Horizon 2020 goals. While the themes and certain specific targets have been elaborated already we will develop some further key performance indicators during the course of 2016 in parallel with the development of a revised reporting framework. Given the timing we have opted to continue using the GRI G3 reporting for this 2015 report as this provides the necessary degree of continuity and consistency with the approach of the previous four reports relating to the Vision 2015 goals.

Horizon 2020 Turning sustainability into a g

ECONOMIC

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Annual report 2015

Jmicore

By 2020 we have ...

Leadership



Clear leadership in clean mobility materials and recycling

Umicore has a unique offering of materials to support the world's drive towards clean mobility. This covers automotive catalysts, cathode materials for rechargeable batteries and fuel cell catalysts. Umicore also has the broadest and most technologically advanced capabilities in the recycling of precious and specialty metals.

Earnings



Doubled the size of the business in terms of earnings

Umicore aims to double recurring EBIT between 2014 and 2020. This will be achieved largely through establishing clear leadership in clean mobility materials and recycling.

Portfolio



Rebalanced the portfolio & earnings contributions

Catalysis and Energy & Surface Technologies have the potential to grow faster in the coming years. This should lead to a rebalancing in the portfolio with the three business groups contributing a more even share of earnings by 2020.

Objectives reater competitive edge

SOCIAL AND ENVIRONMENTAL By 2020 we have...

Value chain and society



SUSTAINABLE SUPPLY



Umicore seeks to generate a greater competitive edge by promoting its ethical sourcing approach and closed loop business offering.



sustainable products and services Developed selective sustainabilitydriven products and services

Umicore aims to generate further competitive benefits through the development of products that have specific sustainability benefits such as the reduction of harmful substances or the enhancement of material or energy efficiency.

Eco-efficiency



EFFICIENT OPERATIONS

An even more efficient use of metals, energy and other substances in our operations

Umicore will pursue selective eco-efficiency initiatives in business units and sites where these can generate compelling value for example through reduced costs or a strengthened license to operate.

Great place to work



HEALTH

Made further advances in being considered a great place to work PEOPLE ENGAGEMENT

Umicore aims to have zero lost time accidents and to have further reduced employee exposure to specific metals. Umicore will make progress on specific strategically important themes of talent management, diversity and employability.

Economic statements

Group

KEY FIGURES						
(in million EUR unless stated otherwise)	Note	2011	2012	2013	2014	2015
Turnover*		14,480.9	12,548.0	9,819.3	8,828.5	10,441.9
Revenues (excluding metal)		2,323.2	2,421.4	2,363.4	2,366.5	2,629.0
Recurring EBITDA	F9	553.0	524.1	462.6	442.2	504.7
Recurring EBIT	F9	416.1	372.1	304.0	273.7	330.3
of which associates	F9	22.9	22.2	11.8	28.3	14.3
Non-recurring EBIT	F9	1.0	(46.7)	(43.4)	(21.6)	(74.9)
IAS 39 effect on EBIT	F9	15.6	3.2	(0.5)	(2.7)	(2.7)
Total EBIT	F9	432.7	328.6	260.0	249.3	252.7
Recurring EBIT margin (in %)		16.9	14.4	12.4	10.4	12.0
Return on Capital Employed (ROCE) (in %)	F31	18.6	16.7	13.6	12.2	13.7
Average weighted net interest rate (in %)	F11	3.7	1.9	1.6	1.6	1.5
Effective recurring tax rate (in %)	F13	19.9	20.6	21.3	21.8	21.4
Recurring net profit, Group share	F9	304.6	275.2	218.0	193.1	246.0
Result from discontinued operations, Group share		0.0	0.0	0.0	28.6	32.0
Net profit, Group share	F9	325.0	233.4	179.0	170.6	169.2
R&D expenditure	F9	136.7	149.0	140.6	143.3	144.5
Capital expenditure	F34	196.2	235.9	279.6	202.4	240.3
Net cash flow before financing	F34	308.6	150.3	185.9	139.9	119.0
Total assets of continued operations, end of period		3,713.2	3,667.9	3,512.3	3,851.4	4,030.1
Group shareholders' equity, end of period		1,667.5	1,751.7	1,677.1	1,704.6	1,731.6
Consolidated net financial debt of continued operations, end of period	F24	266.6	222.5	215.0	298.3	321.3
Gearing ratio of continued operations, end of period (in %)	F24	13.4	11.0	11.1	14.6	15.3
Average net debt / recurring EBITDA (in %)		59.8	47.7	44.2	51.9	61.8
Capital employed, end of period	F31	2,168.8	2,259.4	2,233.6	2,335.3	2,414.5
Capital employed, average	F31	2,233.0	2,224.6	2,241.3	2,240.1	2,402.2

* including the elimination of the transactions between continued and discontinued operations

DATA PER SHARE

(in EUR / share)	Note	2011	2012	2013	2014	2015
Earnings per share						
Recurring EPS	F39	2.69	2.47	1.96	1.79	2.27
EPS adjusted excluding discontinued operations	F39					
basic	F39	2.87	2.09	1.61	1.58	1.56
diluted	F39	2.85	2.08	1.60	1.57	1.55
EPS including discontinued operations	F39					
basic	F39	2.87	2.09	1.61	1.58	1.56
diluted	F39	2.85	2.08	1.60	1.57	1.55
Gross dividend		1.00	1.00	1.00	1.00	1.20
Net cash flow before financing, basic	F34	2.72	1.35	1.67	1.29	1.10
Total assets of continued operations, end of period		33.53	32.78	32.00	35.63	37.29
Group shareholders' equity, end of period		15.06	15.66	15.28	15.77	16.02
Shareprice						
High		40.09	44.12	42.12	38.21	45.55
Low		25.35	32.30	31.54	30.42	31.82
Average		34.21	38.57	35.72	34.32	39.12
Close		31.87	41.69	33.96	33.31	38.67

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NUMBER OF SHARES

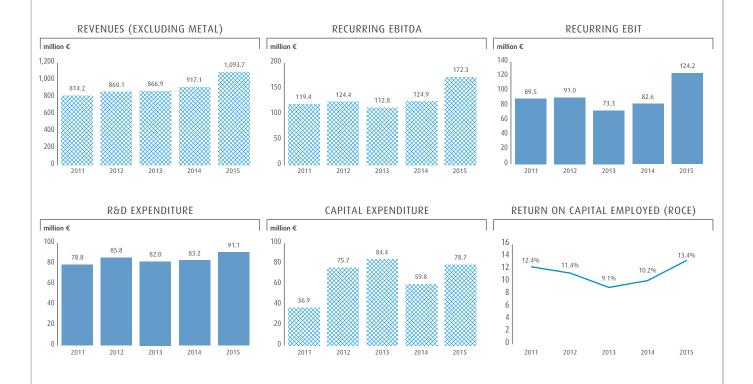
	Note	2011	2012	2013	2014	2015
Total number of issued shares, end of period	F39	120,000,000	120,000,000	120,000,000	112,000,000	112,000,000
of which shares outstanding	F39	110,756,062	111,886,512	109,771,339	108,085,728	108,072,466
of which treasury shares	F39	9,243,938	8,113,488	10,228,661	3,914,272	3,927,534
Average number of shares outstanding, basic	F39	113,304,188	111,593,474	111,257,259	108,062,085	108,445,128
Average number of shares outstanding, diluted	F39	114,208,275	112,346,081	111,733,165	108,451,847	108,927,245



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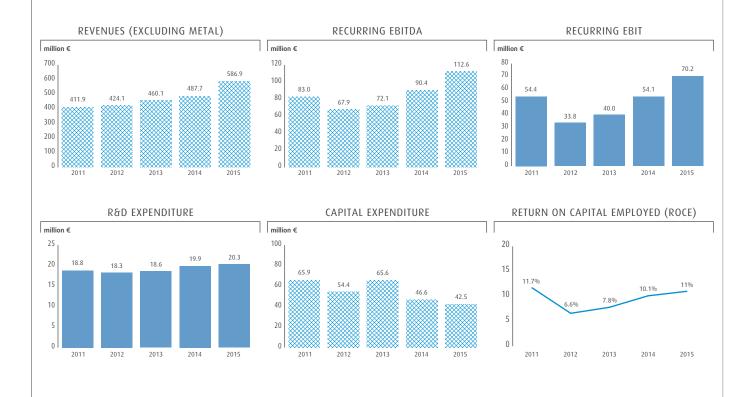
Catalysis

(in million EUR unless stated otherwise)	2011	2012	2013	2014	2015
Total turnover	1,932.0	1,871.9	2,020.2	2,181.3	2,749.3
Total revenues (excluding metal)	814.2	860.1	866.9	917.1	1,093.7
Recurring EBITDA	119.4	124.4	112.8	124.9	172.3
Recurring EBIT	89.5	91.0	73.3	82.6	124.2
of which associates	5.7	10.5	2.5	7.0	8.8
Total EBIT	96.8	83.8	73.7	79.9	115.9
Recurring EBIT margin (in %)	10.3	9.3	8.2	8.2	10.6
R&D expenditure	78.8	85.8	82.0	83.2	91.1
Capital expenditure	36.9	75.7	84.4	59.8	78.7
Capital employed, end of period	768.2	795.5	809.5	851.4	968.2
Capital employed, average	718.6	797.6	804.6	811.4	929.6
Return on Capital Employed (ROCE) (in %)	12.4	11.4	9.1	10.2	13.4
Workforce, end of period (fully consolidated)	1,943	2,120	2,173	2,290	2,443
Workforce, end of period (associates)	239	161	167	167	168



Energy & Surface Technologies

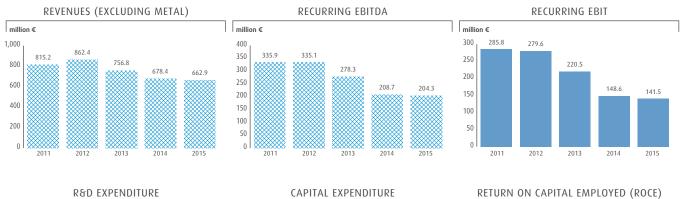
(in million EUR unless stated otherwise)	2011	2012	2013	2014	2015
Total turnover	1,054.4	1,078.9	1,132.3	1,191.6	1,475.1
Total revenues (excluding metal)	411.9	424.1	460.1	487.7	586.9
Recurring EBITDA	83.0	67.9	72.1	90.4	112.6
Recurring EBIT	54.4	33.8	40.0	54.1	70.2
of which associates	6.3	4.2	2.7	4.7	(3.5)
Total EBIT	47.6	3.4	36.6	53.4	37.3
Recurring EBIT margin (in %)	11.7	7.0	8.1	10.1	12.6
R&D expenditure	18.8	18.3	18.6	19.9	20.3
Capital expenditure	65.9	54.4	65.6	46.6	42.5
Capital employed, end of period	486.8	510.6	502.8	618.6	633.4
Capital employed, average	466.5	509.6	512.5	535.8	640.0
Return on Capital Employed (ROCE) (in %)	11.7	6.6	7.8	10.1	11.0
Workforce, end of period (fully consolidated)	2,071	2,111	2,061	2,181	2,258
Workforce, end of period (associates)	1,206	1,057	1,056	930	936



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Recycling

(in million EUR unless stated otherwise)	2011	2012	2013	2014	2015
Total turnover	11,450.8	9,572.1	6,603.4	5,326.2	6,252.1
Total revenues (excluding metal)	815.2	862.4	756.8	678.4	662.9
Recurring EBITDA	335.9	335.1	278.3	208.7	204.3
Recurring EBIT	285.8	279.6	220.5	148.6	141.5
Total EBIT	297.2	272.3	220.5	141.2	132.5
Recurring EBIT margin (in %)	35.1	32.4	29.1	21.9	21.3
R&D expenditure	19.5	24.5	23.7	24.3	21.2
Capital expenditure	67.3	78.1	93.7	63.8	83.0
Capital employed, end of period	467.7	495.4	520.5	411.7	465.9
Capital employed, average	538.1	465.9	496.1	472.6	460.2
Return on Capital Employed (ROCE) (in %)	53.1	60.0	44.4	31.4	30.7
Workforce, end of period (fully consolidated)	3,340	3,371	3,304	3,302	3,211

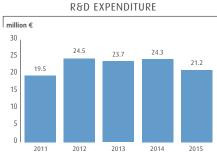


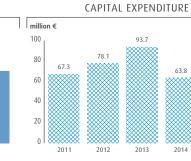
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2015

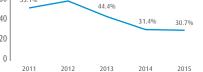
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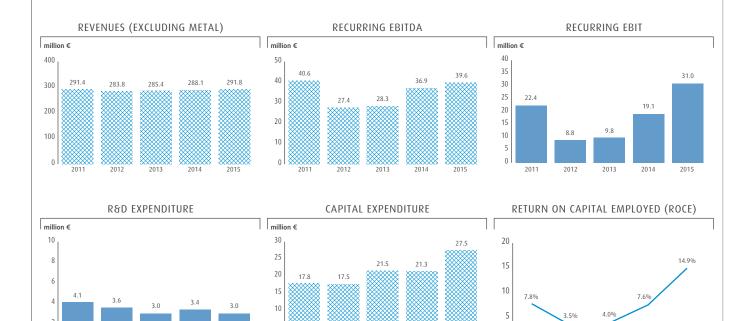




Umicore Annual report 2015

Discontinued operations

(in million EUR unless stated otherwise)	2011	2012	2013	2014	2015
Total turnover	720.8	664.9	647.4	709.0	744.7
Total revenues (excluding metal)	291.4	283.8	285.4	288.1	291.8
Recurring EBITDA	40.6	27.4	28.3	36.9	39.6
Recurring EBIT	22.4	8.8	9.8	19.1	31.0
of which associates	0.8	0.6	0.4	1.3	0.7
Total EBIT	12.4	12.1	(6.8)	19.7	19.6
Recurring EBIT margin (in %)	7.4	2.9	3.3	6.2	10.4
R&D expenditure	4.1	3.6	3.0	3.4	3.0
Capital expenditure	17.8	17.5	21.5	21.3	27.5
Capital employed, end of period	263.3	243.4	231.2	264.2	199.3
Capital employed, average	287.2	253.3	244.4	251.2	207.6
Return on Capital Employed (ROCE) (in %)	7.8	3.5	4.0	7.6	14.9
Workforce, end of period (fully consolidated)	1,675	1,642	1,545	1,505	1,517
Workforce, end of period (associates)	545	488	502	501	508



Financial statements

Umicore Annual report 2015

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Consolidated financial statements

Consolidated income statement

			(EUR thousand)
	Notes	2014	2015
Turnover	F9	8,125,325	9,697,685
Other operating income	F9	46,731	58,030
Operating income		8,172,056	9,755,715
Raw materials and consumables	F9	(6,890,258)	(8,316,333)
Payroll and related benefits	F10	(603,346)	(640,390)
Depreciation and impairments	F9	(162,309)	(218,842)
Other operating expenses	F9	(316,055)	(354,338)
Operating expenses		(7,971,968)	(9,529,903)
Income from other financial investments	F12	9,731	(2,579)
RESULT FROM OPERATING ACTIVITIES		209,819	223,232
Financial income	F11	4,035	4,063
Financial expenses	F11	(19,118)	(16,578)
Foreign exchange gains and losses	F11	(6,498)	(12,070)
Share in result of companies using the equity method	F17	19,775	9,827
Profit (loss) before income tax		208,013	208,472
Income taxes	F13	(44,355)	(47,736)
Profit from continuing operations		163,658	160,736
Profit (loss) from discontinued operations (*)	F42	14,437	16,424
PROFIT (LOSS) OF THE PERIOD		178,095	177,160
of which: Gro	oup share	170,603	169,225
Mino	rity share	7,492	7,934
			(EUR)
Basic earnings per share from continuing operations	F39	1.45	1.41
Total basic earnings per share	F39	1.58	1.56
Diluted earnings per share from continuing operations	F39	1.44	1.41
Total diluted earnings per share	F39	1.57	1.55
Dividend per share		1.00	1.20
* Attributable to aquitubalders of these companies			

* Attributable to equityholders of these companies

The notes on pages 50 to 119 are an integral part of these consolidated financial statements.

Consolidated statement of comprehensive income

			(EUR thousand)
	Notes	2014	2015
Profit (loss) of the period for continuing operations		163,660	160,736
Items in other comprehensive income that will not be reclassified to P&L			
Changes in post employment benefits, arising from changes in actuarial assumptions		(55,838)	(16,450)
Changes in deferred taxes directly recognized in other comprehensive income		16,607	2,873
Items in other comprehensive income that may be subsequently reclassified to P&L			
Changes in available-for-sale financial assets reserves		14,992	(15,776)
Changes in cash flow hedge reserves		(14,636)	(13,090)
Changes in deferred taxes directly recognized in other comprehensive income		4,326	4,474
Changes in currency translation differences		67,576	(656)
Other comprehensive income for the period, for continuing operations	F23	33,027	(38,625)
Total comprehensive income from discontinued operations		10,451	23,218
Total comprehensive income for the period		207,137	145,329
of which: Group share		196,411	140,089
Minority share		10,727	5,240

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The deferred tax impact on the consolidated statement of comprehensive income is due to the cash flow hedge reserves for EUR 4.5 million and to employee benefit reserves for EUR 2.9 million.

The notes on pages 50 to 119 are an integral part of these consolidated financial statements.

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Consolidated balance sheet

	Notos	21/12/2014	(EUR thousand
	Notes	31/12/2014	31/12/2015
Non-current assets		1,710,503	1,614,204
Intangible assets	F14, F15	266,073	251,79
Property, plant and equipment	F16	1,061,735	1,022,59
Investments accounted for using the equity method	F17	208,847	189,80
Available-for-sale financial assets	F18	50,258	29,23
Loans granted	F18	1,212	1,53
Trade and other receivables	F20	17,555	15,19
Deferred tax assets	F21	104,823	104,05
Current assets		2,140,866	1,996,272
Current loans granted	F18	6,876	2,65
Inventories	F19	1,182,946	1,053,66
Trade and other receivables	F20	826,989	829,80
Income tax receivables		34,264	35,65
Cash and Cash equivalents	F22	89,791	74,48
Assets of discontinued operations	F42		419,599
TOTAL ASSETS		3,851,368	4,030,07
Equity of the group		1,750,133	1,784,97
Group shareholders' equity		1,694,380	1,698,72
Share capital and premiums		502,862	502,86
Retained earnings		1,458,344	1,501,29
Currency translation differences and other reserves	F23	(135,955)	(175,518
Treasury shares		(130,871)	(129,913
Minority interest		45,301	52,57
Elements of comprehensive income of discontinued operations		10,452	33,67
Non-current liabilities		493,957	490,243
Provisions for employee benefits	F27	331,702	312,35
Financial debt	F24	22,571	71,29
Trade and other payables	F25	21,490	24,65
Deferred tax liabilities	F21	17,520	6,23
Provisions	F29, F30	100,673	75,69
Current liabilities		1,607,278	1,525,669
Financial debt	F24	365,513	338,87
Trade and other payables	F25	1,148,599	1,095,37
Income tax payable		63,958	54,88
Provisions	F29, F30	29,208	36,53
Liabilities from discontinued operations	F42	;;	229,193
TOTAL EQUITY & LIABILITIES		3,851,368	4,030,07

The notes on pages 50 to 119 are an integral part of these consolidated financial statements.

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Consolidated statement of changes in equity

Elements of compre-Share hensive Currency Total for capital translation income of and and other Тгеаѕигу Minority continuing discontinued premiums Reserves reserves shares operations operations Balance at the beginning 502,862 1,647,378 (167, 438)(305, 661)46,287 1,723,428 0 1,723,428 of previous period Result of the period 156,287 7,371 163,658 14,437 178,095 Other comprehensive income for the period 29.954 3,074 33,027 (3, 985)29.042 Total comprehensive income 156,287 29,954 10,445 196,685 10,452 207,137 for the period Changes in share-based payment reserves 3.598 3.598 3.598 Capital decrease (5,652)(5,652)(5,652)Dividends (108, 659)(115,709)(115,709)Transfers (236, 662)(2,068)238,730 Changes in treasury shares (63, 941)(63, 941)(63, 941)Changes in scope 1,271 1,271 1,271 Balance at the end of previous period 502,862 1,458,344 (135,955)10,452 1,750,133 (130, 871)45,301 1,739,680 Result of the period 153.203 7.530 160,733 16,424 177.157 Other comprehensive income for the period (36, 335)(2,290)(38,625) 6,794 (31, 831)Total comprehensive income 153,203 (36, 335)5,240 122,108 23,218 145,325 for the period 5,841 Changes in share-based payment reserves 5,841 5,841 Capital increase 7,414 7,414 7,414 Dividends (108,601)(5, 377)(113,978)(113, 978)Transfers 10,725 Changes in treasury shares (9,767)(9,767)(9,767)Balance at the end of the financial year 502,862 1,501,290 (175,518) (129,913)33,671 1,784,970 52,577 1,751,299

The legal reserve of EUR 50,000 thousand which is included in the retained earnings is not available for distribution.

The share capital of the Group as at 31 December 2015 was composed of 112,000,000 shares with no par value.

The company complied with the requirements of article 11 of the Law of 14 December 2005 related to the dematerialisation of bearer securities and the statutory auditors issued a certification (agreed-upon-procedures report) in that respect on December 18, 2015.

As per December 31, 2014 the number of bearer securities for which the identity of the owner was unknown amounts to 57,317. On September 16, 2015 and on October 28, 2015, the Company published for both dates a notice on the website of Euronext to sell the outstanding bearer shares. The initial publication notice of September 16, 2015 has also been published in the Belgian Law Gazette. After expiration of the waiting period, the number of bearer securities available for sale at the first notification amounted to 97,627 and were sold on October 30, 2015 for a net proceed of EUR 3,768,539. The number of bearer securities available-for-sale at the second notification amounted to 24 and were sold on November 30, 2015 for a net proceed of EUR 926. The total sales proceeds resulting from the sale of these shares were transferred to the Deposito- en Consignatiekas/Caisse des Dépôts et Consignations.

The notes on pages 50 to 119 are an integral part of these consolidated financial statements.

(EUR thousand)

Consolidated statement of cash flow

		2011	(EUR thousand
	Notes	2014	201
Profit from continuing operations		163,656	160,73
Adjustments for profit of equity companies		(19,775)	(9,827
Adjustment for non-cash transactions	F34	147,507	234,63
Adjustments for items to disclose separately or under investing and financing cash flows	F34	47,074	50,70
Change in working capital requirement	F34	87,753	(113,111
Cash flow generated from operations		426,215	323,13
Dividend received		15,063	23,92
Tax paid during the period		(53,250)	(80,93
Government grants received		8,083	(981
NET OPERATING CASHFLOW	F34	396,111	265,14
Acquisition of property, plant and equipment	F16	(169,486)	(204,494
Acquisition of intangible assets	F14	(24,138)	(20,856
Acquisition in new subsidiaries (net of cash acquired)	F8	(35,160)	45
Acquisition of / capital increase in associates		(180)	(1,764
Acquisition of financial assets	F18	(18,842)	(76
New loans extended	F18	(2,115)	(3,252
Sub-total acquisitions		(249,920)	(229,984
Disposal of property, plant and equipment		2,445	2,12
Disposal of intangible assets		579	1,73
Disposal of subsidiaries and associates (net of cash disposed)		0	64
Capital decrease in associates			22
Disposal of financial fixed assets		5,141	
Repayment of loans	F18	0	3,36
Sub-total disposals		8,165	8,08
NET CASH FLOW GENERATED BY (USED IN) INVESTING ACTIVITIES	F34	(241,754)	(221,896
Capital increase/decrease minorities		(4,537)	3,45
Own shares		(63,941)	(9,76)
nterest received		3,298	3,71
nterest paid		(6,453)	(9,33
New loans (repayment of loans)		38,642	26,83
Dividends paid to Umicore shareholders		(107,926)	(108,638
Dividends paid to minority shareholders		(7,050)	(5,37
NET CASH FLOW GENERATED BY (USED IN) FINANCING ACTIVITIES	F34	(147,967)	(99,104
Effect of exchange rate fluctuations on cash held		(9,222)	(17,300
NET CASH FLOW FROM CONTINUING OPERATIONS		(2,831)	(73,153
Net cash and cash equivalents at the beginning of the period for contituing operations	F22	105,787	102,94
Impact of final financing carved out entities			36,37
Net cash and cash equivalents at the end of the period for continuing operations	F22	102,943	66,16
Cash to discontinued operations		(23,057)	37,87
of which cash and cash equivalents		89,791	112,35
of which bank overdrafts		(9,905)	(8,318

The notes on pages 50 to 119 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 page 1-120, for the year ended 31 December 2015 were authorized for issue by the Board of Directors on 10 March 2016. 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 remeasured 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 accordance with IAS 39 either in profit or loss or as a change to other comprehensive income. 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 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 remeasured 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

Umicore

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 calculates the amount of 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.

This clustering anticipates the planned divestment of the company's zinc-related activities. The Building Products and Zinc Chemicals business units are reported as discontinued until their effective divestment.

The Catalysis segment produces automotive catalysts for emission abatement in light and heavy duty vehicles as well as catalyst products used in chemical processes such as the fine chemical and life science industries. These catalysts are mainly based on PGM metals. The Energy & Surface Technologies segment is focused amongst other on materials used in the growing markets of rechargeable batteries, in both portable electronics as well as in electrified electric vehicles and solar energy. It also offers material solutions for surface treatment in industries such as construction and electronics. The segment's products are largely based on cobalt, nickel, germanium and indium. The Recycling segment recovers a large number of precious and other metals from a wide range of waste streams and industrial residues. The Recycling operations extend also to the production of jewellery materials (including recycling services) as well as the recycling of rechargeable batteries. The segment also offer products for various applications including chemical, electric, electronic, automotive and special glass applications. All its products apply precious metals to enhance specific product capabilities.

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

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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 euros 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 recognized 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 recognized 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 recognized 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 capitalized together with the costs of the assets in accordance with IAS 23. All borrowing costs that cannot be linked directly to an investment are recognized 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 customized 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:

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

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 amortized over the contractual period.

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 recognized 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 recognized 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 recognized 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 recognized 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 capitalized 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 capitalized they are amortized using a straight-line method over the period of their expected benefit, in general five years.

2.6.4 CO₂ 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 capitalization 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 recognizes 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 revenue. 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 amortization and impairment losses:

- * Concessions, patents, licenses: are amortized over the period of their legal protection with a minimum of 5% (in general over 5 years).
- * Customer portfolios: are typically amortized over a period of five years
- * ERP software are typically amortized over a period of ten years.
- * Smaller software are typically amortized over a period of five years.

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

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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 recognized 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. Unrealized gains and losses from changes in the fair value of such assets are recognized 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 amortized 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 realizable 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 minimize 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 recognized when turnover is slow or where the carrying amount is exceeding the net realizable 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 amortized 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 derecognized 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 amortized 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 recognized as an expense immediately.

A reversal of impairment losses is recognized when there is an indication that the impairment losses recognized 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 amortization, if no impairment loss had been recognized.

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 recognized 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 recognized 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 recognized 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 recognized 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 recognized 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

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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 recognized at the moment the event occurs. When the obligation is production/ activity related, the provision is recognized 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 recognized 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 recognized 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.

Unrecognized past service costs result from the introduction of new benefit plans or changes in the benefits payable under an existing plan. The past service costs are immediately recognized in the income statement since IAS 19 revised.

All actuarial gains and losses following changes in the actuarial assumptions of post-employment defined benefit plans are recognized 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 recognized 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 actuarial losses or gains are immediately recognized 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 recognized.

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 actuarial losses or gains are immediately recognized in the income statement.

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2.16.5 Equity and equity-related compensation benefits (share based payments IFRS 2)

Different stock option and share programs 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 programs, 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 recognized as an employee benefit expense with a corresponding increase in equity as share based payment reserves. For the options, the expense to be recognized 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 recognized as proceeds received, net of transaction costs. Subsequently they are carried at amortized cost using the effective interest rate method. Amortized 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 recognized in the income statement upon redemption.

2.18 Trade and other payables

Trade payables are measured at amortized 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 recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

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 Revenue recognition

2.20.1 Goods sold and services rendered

Revenue from the sale of goods in transformation activities is recognized 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.

Revenue from refining activities and services rendered is recognized 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 recognized 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 recognized 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 recognized 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 recognized 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 recognized 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 recognized 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 recognized 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 recognized 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 revenue 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 recognized 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 recognized 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 minimize 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 USD exchange rate against the Euro or other currencies which are not pegged to the USD will have an impact on our results.

The largest portion of such structural currency exposure derives from US dollar denominated metal prices, which have an impact on the Euro denominated value of surplus metal recovered from recyclable materials.

Another portion of this exposure stems from non-metal related revenues denominated in US dollar such as refining charges or product premia. For this portion and at prevailing exchange rates at the end of 2015 and excluding hedging, a strengthening of the US dollar by 1 cent against the Euro is estimated to give rise to an increase in revenues and operating result of approximately EUR 1.5 million on an annual basis. Conversely, a weakening of the US dollar by 1 cent against the Euro is estimated to give rise to a decrease in revenues and operating result of the same magnitude on an annual basis. This non-metal related sensitivity is an estimate and is somewhat theoretical since the exchange rate level may impact commercial conditions negotiated in USD.

To a lesser extent, next to the sensitivity in USD there is also a structural sensitivity to certain other currencies such as the Brazilian real, the Korean won, the Chinese Yuan and the South African rand.

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 2015, 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 and EUR/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.

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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 USD, the Brazilian real, the Korean won, the Chinese yuan and the South African rand. 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 metals-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 revenue 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, and Discontinued operations) linked primarily to the revenue 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. In prior years Umicore hedged part of its forward metal exposure. At the end of 2015, Umicore still retained some of those hedges to cover part of the future price risks. The outstanding hedge contracts relate primarily to precious metals (i.e. platinum, gold and silver).

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 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 2015, the Group's gross financial debt stood at EUR 410 million, of which 20 million at fixed rate. In January 2013, the Group entered in a 5-year interest rate swap fixing the rate for an amount of EUR 150 million.

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. One global credit insurance contract has been put in place on a world-wide basis. This contract protects the group companies against insolvency, political and commercial risks with an individual deductible per invoice of 5%. The global indemnification cap is set at EUR 20 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, characterized by a significant level of customer concentration or by a specific and close relationship with the customers, specific insurance contract 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 shortterm bilateral bank facilities, two medium-term syndicated bank facilities and a commercial paper programme (the latter with a maximum amount of EUR 300 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.

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 of the Corporate Governance section (page 167-170) for a description of these risks and an outline of Umicore's general approach to risk management.

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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,
- * Recognizing 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 realized,
- * 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 2015, the carrying amount of the goodwill for the consolidated entity is EUR 131,860 thousand (EUR 140,336 thousand in 2014).

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 2015, the carrying amount of rehabilitation provisions is EUR 63,738 thousand (EUR 68,347 thousand in 2014).

4.3 Defined benefit obligations

An asset or liability in respect of defined benefit plan is recognized 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 2015, a liability with respect to employee benefit obligations of EUR 312,357 thousand was recognized (EUR 331,702 thousand in 2014).

4.4 Recovery of deferred tax assets

Deferred tax assets are recognized 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 recognized.

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 2014	% interest in 2015
For continuing operations		
Argentina Umicore Argentina S.A.	100.00	100.00
Australia Umicore Marketing Services Australia Pty Ltd.	100.00	100.00
Austria Oegussa GmbH	91.29	91.29
Belgium Umicore Financial Services (BE 0428.179.081)	100.00	100.00
Umicore Marketing Services Belgium (BE 0402.964.625)	100.00	100.00
Umicore Abrasives (BE 0881.426.726)	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
Todini (BE 0834.075.185)	100.00	100.00
Brazil Coimpa Industrial Ltda	100.00	100.00
Umicore Brasil Ltda	100.00	100.00
Clarex Ltda	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
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 Shokubai Germany GmbH	60.00	60.00
, , Todini GmbH	100.00	100.00
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
Liechtenstein Umicore Thin Film Products AG	100.00	100.00
Luxemburg 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 Education Metals Education Services Africa (Pty) Ltd.	100.00	100.00
Umicore Catalyst South Africa (Pty) Ltd.	100.00	100.00
South Korea Umicore Korea Ltd.	100.00	100.00
Umicore Marketing Services Korea Co., Ltd.	100.00	100.00
Unicore Marketing Services Korea Cu., Ltd. Umicore Materials Korea Ltd	100.00	100.00
Sweden Umicore Autocat Sweden AB		100.00
	100.00	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

		% interest in 2014	% interest in 2015
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 Marketing Services 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	100.00	100.00
	Umicore Thin Film Products USA Inc.	100.00	100.00
	Umicore Specialty Materials Recycling, LLC.	100.00	100.00
For discontinued operations			
Australia	Umicore Australia Ltd.	100.00	100.00
Belgium	Umicore Zinc Chemicals Belgium (BE 0631.891.157)		100,00
	VMZINC BENELUX & UK (BE 0631.891.256)		100,00
China	Umicore Hunan Fuhong Zinc Chemicals Co., Ltd.	100.00	100.00
	Umicore Shanghai Co., Ltd.	75.00	75.00
France	Umicore Building Products France S.A.S	100.00	100.00
Germany	Umicore Bausysteme GmbH	100.00	100.00
Hungary	Umicore Building Products Hungary kft.	100.00	100.00
Malaysia	Umicore Malaysia Sdn Bhd	100.00	100.00
Netherlands	Umicore Nederland BV	100.00	100.00
Norway	Umicore Norway AS	100.00	100.00
Polska	Umicore Building Products Polska	100.00	100.00
Portugal	Umicore Portugal S.A.	100.00	100.00
Spain	Umicore Building Products Iberica S.L.	100.00	100.00
Switzerland	Umicore Strub SA	100.00	100.00
USA	Umicore Building Products USA Inc.	100.00	100.00

An exhaustive list of the Group companies with their registered offices will be filed with the Belgian National Bank together with the consolidated financial statements.

(*) As a result of the integration of Umicore 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 is 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 (EUR), 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.

		C	losing rates	Av	erage rates
		2014	2015	2014	2015
American Dollar	USD	1.214	1.089	1.329	1,110
UK Pound Sterling	GBP	0.779	0.734	0.806	0.726
Canadian Dollar	CAD	1.406	1.512	1.466	1.419
Swiss Franc	CHF	1.202	1.084	1.215	1.068
Japanese Yen	JPY	145.230	131.070	140.306	134.314
Brazilian Real	BRL	3.225	4.251	3.127	3.697
South African Rand	ZAR	14.035	16.953	14.404	14.172
Chinese Yuan	CNY	7.536	7.061	8.186	6.973
Thai Baht	THB	39.910	39.248	43.147	38.028
Korean Won (100)	KRW	13.248	12.808	13.981	12.565

F7 Segment information

BUSINESS GROUP INFORMATION 2014

			Energy &					Discon-	R thousand
			Surface		Corporate &	Elimina-	Total	tinued	
	Note	Catalysis	Technologies	Recycling	Unallocated	tions	Continued	operations	Tota
Total segment turnover		2,181,312	1,191,586	5,326,157	31,197	(604,929)	8,125,323	708,945	8,834,270
External turnover		2,162,153	1,136,735	4,795,238	31,197		8,125,323	708,945	8,834,270
Inter-segment turnover		19,159	54,851	530,919		(604,929)	0	0	
Total segment revenues (excluding metals)		917,111	487,669	678,352	0	(4,752)	2,078,380	288,100	2,366,480
External revenues		916,308	487,339	674,733	0		2,078,380	288,100	2,366,480
Inter-segment revenues		803	330	3,619		(4,752)	0	0	
Operating result	F9	73,108	48,676	141,155	(53,120)		209,819	18,200	228,019
Recurring operating result		75,529	49,428	148,582	(46,001)		227,538	17,787	245,32
Non-recurring operating result		(1,882)	911	(7,163)	(7,119)		(15,253)	(105)	(15,358
AS 39 effect		(539)	(1,663)	(264)	(,,,,,,)		(2,466)	518	(1,948
Equity method companies	F9	6,811	4,686	0	8,278		19,775	1,519	21,294
Recurring		7,024	4,686	0	15,362		27,072	1,271	28,343
Non-recurring		(211)	4,000	0	(6,297)		(6,508)	248	(6,260
IAS 39 effect		(211)	0		(787)		(0,500)	2 10	(789
EBIT	F9	79,919	53,362	141,155	(44,842)		229,594	19,719	249,313
Recurring EBIT		82,553	54,114	148,582	(30,639)		254,610	19,058	273,668
Non-recurring EBIT		(2,093)	911	(7,163)	(13,416)		(21,761)	143	(21,618
IAS 39 effect on EBIT		(541)	(1,663)	(264)	(787)		(3,255)	518	(2,737
Depreciation and									
amortization	F9	43,192	36,241	60,157	11,901		151,491	17,844	169,335
Recurring		42,380	36,241	60,157	11,901		150,679	17,844	168,52
EBITDA	F9	123,111	89,603	201,312	(32,941)	0	381,085	37,563	418,648
Recurring EBITDA		124,933	90,355	208,739	(18,738)	0	405,289	36,902	442,19
Consolidated total assets		1,312,316	1,046,721	816,368	476,756	(547,749)	3,104,412	746,957	3,851,369
Segment assets		1,251,611	1,015,758	816,368	476,433	(547,749)	3,012,422	628,921	3,641,343
nvestments in associates		60,704	30,963	0	322	0	91,990	118,036	210,026
Consolidated total liabilities		462,414	439,922	523,461	986,894	(547,749)	1,864,943	236,293	2,101,230
Capital Employed at 31/12 of previous year	F31	809,472	502,824	520,511	169,590		2,002,397	231,172	2,233,568
Capital Employed at 30/06	F31	792,310	510,818	479,165	158,772		1,941,065	254,692	2,195,757
Capital Employed at 31/12	F31	851,378	618,636	411,708	189,409		2,071,131	264,183	2,335,314
Average Capital Employed in first half year	F31	800,891	506,821	499,838	164,181		1,971,731	242,932	2,214,663
Average Capital Employed in second half year	F31	821,844	564,727	445,437	174,090		2,006,098	259,438	2,265,535
Average Capital Employed in the year	F31	811,367	535,774	472,637	169,135		1,988,914	251,185	2,240,099
ROCE	F31	10.17%	10.10%	31.44%	(18.12)%		12.80%	7.59%	12.22%
Capital expenditure	F34	59,778	46,584	63,798	10,868		181,028	21,348	202,376
Total R&D expenditure	F9	83,151	19,868	24,344	12,629		139,992	3,348	143,340
R&D recognised in operating	F9		·····						
expenses R&D capitalised as intangible	۴۶	72,908	17,424	24,344	12,629		127,305	3,348	130,653
assets	F34	10,243	2,444	0	0	0	12,687	0	12,687

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			Energy &					(EUR th Discon-				
			Surface		Corporate &	Elimina-	Total	tinued				
	Note	Catalysis		Recycling	Unallocated	tions	Continued	operations	Total			
Total segment turnover		2,749,322	1,474,419	6,251,959	26,179	(804,193)	9,697,685	744,742	10,442,427			
External turnover		2,728,292	1,422,058	5,521,157	26,179		9,697,685	744,742	10,442,427			
Inter-segment turnover		21,030	52,362	730,802	0	(804,193)	0	0	0			
Total segment revenues (excluding metals)		1,093,651	586,877	662,935	0	(6,327)	2,337,136	291,826	2,628,962			
External revenues		1,092,848	586,625	657,663	0		2,337,136	291.826	2,628,962			
Inter-segment revenues		803	252	5,272		(6,327)	0	0	0			
Operating result	F9	109,226	40,799	132,483	(59,281)		223,227	19,272	242,499			
Recurring operating result		115,404	73,726	141,503	(44,982)		285,651	30,294	315,945			
Non-recurring operating result		(5,016)	(32,646)	(11,687)	(14,299)		(63,648)	(6,917)	(70,565)			
IAS 39 effect		(1,162)	(281)	2,667	0		1,224	(4,105)	(2,881)			
Equity method companies	F9	6,679	(3,484)	0	6,632		9,827	347	10,174			
Recurring		8,756	(3,484)	0	8,372		13,644	672	14,316			
Non-recurring		(1,972)	(3, 10 1)	0	(2,030)		(4,002)	(325)	(4,327)			
IAS 39 effect		(105)	0	0	(2,050)		185	(323)	185			
EBIT	F9	115,905	37,315	132,483	(52,649)	0	233,054	19,619	252,673			
Recurring EBIT		124,160	70,242	141,503	(36,610)	0	299,295	30,966	330,261			
Non-recurring EBIT		(6,988)	(32,646)	(11,687)	(16,329)	0	(67,650)	(7,242)	(74,892)			
IAS 39 effect on EBIT		(1,267)	(32,040) (281)	2,667	(10,327)	0	1,409	(4,105)	(2,696)			
Depreciation and		(1,207)	(201)	2,007	270	0	1,407	(4,103)	(2,030)			
amortization	F9	48,174	42,327	62,802	12,560		165,863	8,608	174,471			
Recurring		48,174	42,327	62,802	12,560		165,863	8,608	174,471			
EBITDA	F9	164,079	79,642	195,285	(40,089)	0	398,917	28,227	427,144			
Recurring EBITDA		172,334	112,569	204,305	(24,050)	0	465,158	39,574	504,732			
Consolidated total assets		1,490,487	1,111,989	955,271	575,433	(522,703)	3,610,477	419,599	4,030,076			
Segment assets		1,425,224	1,085,361	955,271	478,093	(522,703)	3,421,246	396,747	3,817,992			
Investments in associates		65,263	26,628	0	97,340	0	189,231	22,852	212,084			
Consolidated total liabilities		540,663	456,074	502,436	1,039,443	(522,703)	2,015,913	229,193	2,245,106			
Capital Employed at 31/12 of previous year	F31	851,378	618,636	411,708	189,409	0	2,071,131	264,183	2,335,314			
Capital Employed at 30/06	F31	949,351	653,928	481,663	161,195		2,246,137	183,422	2,429,559			
Capital Employed at 31/12	F31	968,200	633,382	465,879	147,715		2,215,176	199,325	2,414,501			
Average Capital Employed in first half year	F31	900,364	636,282	446,686	175,302		2,158,634	223,802	2,382,436			
Average Capital Employed in second half year	F31	958,776	643,655	473,771	154,455		2,230,657	191,374	2,422,030			
Average Capital Employed in the year	F31	929,570	639,969	460,228	164,878		2,194,645	207,588	2,402,233			
ROCF	F31	13.36%	10.98%	30.75%	(22.20)%		13.64%	14.92%	13.75%			
Capital expenditure	F34	78,762	42,465	82,984	(22.20)//0 8,534		212,745	27,544	240,289			
Total R&D expenditure	F9	91,140	20,246	21,177	8,980		141,543	2,956	144,499			
R&D recognised in operating	F9											
expenses R&D capitalised as intangible		80,781	18,155	21,177	8,980		129,093	2,956	132,049			
assets	F34	10,359	2,091	0	0	0	12,450	0	12,450			

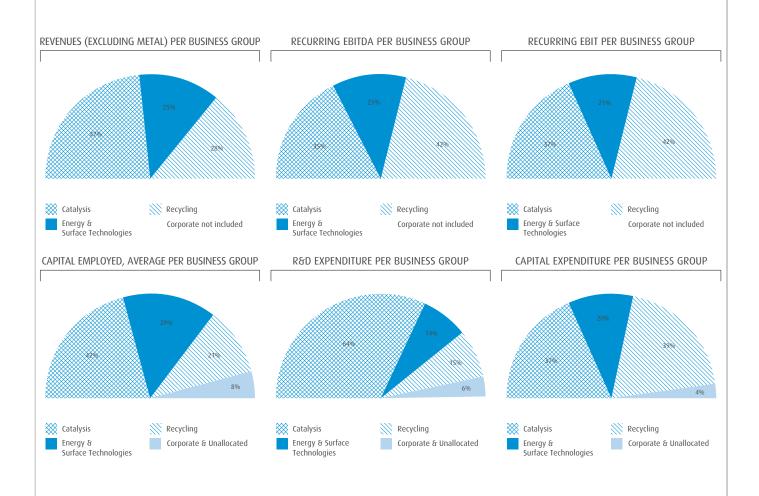
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GEOGRAPHICAL INFORMATION 2014

								R thousand)
	Note	Europe	of which Belgium	Asia- Pacific	North America	South America	Africa	Total
Total segment turnover		5,110,415	160,119		1,089,479	331,192	163,286	8,125,325
Total non current assets		844,571	391,646	362,402	161,784	43,649	8,930	1,421,335
Capital expenditure	F34	113,863	64,248	41,614	15,819	8,482	1,250	181,028

GEOGRAPHICAL INFORMATION 2015

							(EUI	R thousand)
	Note	Еигоре	of which Belgium	Asia- Pacific	North America	South America	Africa	Total
Total segment turnover		6,299,535	152,925	1,660,849	1,294,596	273,208	169,497	9,697,685
Total non current assets		887,683	407,243	395,881	154,941	33,713	6,736	1,478,954
Capital expenditure	F34	142,512	87,562	40,847	21,209	6,793	1,384	212,745





Asia-Pacific Africa Asia-Pacific Africa

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 per cent or more of the segment's revenue.

Business groups

The Group is organized into the following reporting segments:

Catalysis

The segment comprises the Automotive Catalysts and Precious Metals Chemistry business units. Their activities centre on the development and production of catalyst formulations and systems that are used to abate emissions from combustion engines, as well as in chemical and life science applications. This segment includes the joint-venture Ordeg.

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Energy & Surface Technologies

The segment comprises the Cobalt & Specialty Materials, Electro-Optic Materials, Electroplating, Rechargeable Battery Materials and Thin Film Products business units. The Energy & Surface Technologies segment is focused amongst other on materials used in the growing markets of rechargeable batteries, in both portable electronics as well as in electrified electric vehicles and solar energy. It also offers material solutions for surface treatment in industries such as construction and electronics. The segment's products are largely based on cobalt, nickel, germanium and indium. 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 Engineerd Materials. The Recycling segment recovers a large number of precious and other metals from a wide range of waste streams and industrial residues. The Recycling operations extend also to the production of jewellery materials (including recycling services) as well as the recycling of rechargeable batteries. The segment also offers products for various applications including chemical, electric, electronic, automotive and special glass applications. All its products apply precious metals to enhance specific product capabilities.

Corporate

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

The Building Products and Zinc Chemicals business units are reported as discontinued until their effective divestment.

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

In 2015, there were no new business combinations or acquisitions of associates and joint ventures. However, the goodwill on Todini decreased in 2015 by EUR 806 thousand due to minor changes in the opening balance sheets and correction of the acquisition price. The fair value gain on equity companies has also decreased with EUR 296 thousand, taken into non recurring result.

F9 Result from operating activities

OPERATING INCOME AND EXPENSES		(EUR thousand)
	2014	2015
Sales	8,039,938	9,614,101
Services	85,387	83,584
Turnover ⁽¹⁾	8,125,325	9,697,685
Other operating income ⁽²⁾	46,731	58,030
OPERATING INCOME OF CONTINUING OPERATIONS	8,172,056	9,755,715
Raw materials and consumables used (3)	(6,890,258)	(8,316,333)
Payroll and related benefits	(603,346)	(640,390)
Depreciation of fixed assets	(151,491)	(165,863)
Impairment loss on fixed assets	(13,386)	(15,286)
Inventory and bad debt provisions	2,567	(37,693)
Depreciation and impairment results (4)	(162,309)	(218,842)
Services and outsourced refining and production costs	(297,769)	(317,547)
Royalties, licence fees, consulting and commissions	(25,436)	(34,401)
Other operating expenses	367	1,224
Increase and decrease in provisions	(12,552)	(24,711)
Use of provisions	20,127	22,972
Capital losses on disposal of assets	(791)	(1,876)
Other operating expenses ⁽⁵⁾	(316,055)	(354,338)
OPERATING EXPENSES OF CONTINUING OPERATIONS	(7,971,968)	(9,529,903)
Operating income of discontinued operations	713,046	748,440
Operating expenses of discontinued operations	(694,881)	(729,200)

1) Services mainly include the revenues from tolling contracts.

2) Other operating income mainly include re-invoicing of costs to third parties (EUR 27,5 million), operating grants (EUR 8.4 million), royalties and licence fees for EUR 7.2 million, EUR 3.1 million linked to emission rights, EUR 0.8 million for insurance recovery and EUR 0.7 million for assets' sales.

3) Raw materials and consumables used include water, gas and electricity for 86.8 million in 2015 (EUR 80.0 million in 2014) 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 EUR 13.4 million (EUR 13.3 million in 2014) for continuing operations.

R&D EXPENDITURE		(EUR thousand)
	Note	2014	2015
R&D recognised in Other operating expenses		127,304	129,093
R&D capitalised as intangible assets	F14	12,687	12,450
Total R&D expenditure for continuing operations		139,991	141,543
Total R&D expenditure for discontinued operations		3,348	2,956

Total R&D expenditure was EUR 141.5 million in the fully consolidated companies (EUR 144.5 million including the discontinued operations). The part of the R&D expenditures that are going directly through the other operating expenses amounts for EUR 129.1 million (EUR 132.1 million including discontinued operations). 72

NON-RECURRING ELEMENTS AI	ND IA	S 39 EFFECTS IN	CUDED IN THE RE	SULT, INCLUDIN	IG DISCONTI	NUED OPERATION	15	(EUR	thousand)
		2014				2015			
				Non-	IAS 39			Non-	IAS 39
Ν	ote	Total	Recurring	recurring	effect	Total	Recurring	recurring	effect
Turnover		8,834,270	8,834,262	8		10,442,427	10,437,613	4,814	0
Other operating income		50,834	51,624	274	(1,065)	61,727	59,414	2,057	256
Operating income		8,885,104	8,885,886	282	(1,065)	10,504,154	10,497,027	6,871	256
Raw materials and consum- ables used		(7,381,209)	(7,378,939)	(530)	(1,741)	(8,839,300)	(8,843,386)	(7,239)	11,324
Payroll and related benefits		(703,139)	(699,927)	(3,213)	0	(741,290)	(738,162)	(3,128)	0
Depreciation and impair- ment results		(182,187)	(173,902)	(9,369)	1,084	(234,581)	(188,612)	(40,740)	(5,229)
of which depreciation and amortization		(169,335)	(168,523)	(812)	0	(174,471)	(174,471)	0	0
Other operating expenses		(400,312)	(388,151)	(11,935)	(226)	(443,933)	(410,883)	(23,817)	(9,233)
Operating expenses		(8,666,848)	(8,640,918)	(25,047)	(883)	(10,259,104)	(10,181,043)	(74,923)	(3,137)
Income from other financial investments		9,763	357	9,406	0	(2,546)	(34)	(2,512)	0
Result from operating activities		228,019	245,326	(15,359)	(1,948)	242,504	315,950	(70,565)	(2,881)
Net contribution from equity method companies		21,294	28,344	(6,260)	(789)	10,175	14,316	(4,326)	185
EBIT		249,313	273,669	(21,619)	(2,737)	252,674	330,266	(74,891)	(2,696)
EBITDA		418,648	442,192	(20,807)	(2,737)	427,145	504,733	(74,891)	(2,696)
Finance cost	F11	(24,713)	(25,090)	(1,526)	1,903	(26,455)	(9,552)	337	(17,242)
Income taxes	F13	(46,506)	(48,027)	1,356	165	(49,062)	(65,587)	10,335	6,190
Net result		178,094	200,553	(21,789)	(669)	177,161	255,127	(64,219)	(13,749)
of which minority shares		7,492	7,448	139	(94)	7,934	9,128	(1,105)	(89)
of which group shares		170,603	193,105	(21,927)	(575)	169,225	245,999	(63,114)	(13,660)

Non-recurring items had a negative impact of EUR 74.9 million on EBIT, including discontinued operations. The main item consisted of impairments of permanently tied-up metal inventories across several business units due to lower metal prices and totalled EUR 25.7 million. Restructuring charges accounted for EUR 23.1 million, covering cost reduction measures and production footprint adjustments in specific business units such as Technical Materials as well as in the Element Six Abrasives joint venture. Environmental provisions of EUR 11.2 million were booked for the remediation of historical pollution. Other non-recurring expenses were amongst other linked to an impairment of Umicore's shareholding in Nyrstar. The book value of this holding was adjusted in line with IFRS toward Nyrstar's closing price on 31 December 2015 (EUR 1.60). The impact of non-recurring charges on the net result (Group share) amounted to EUR 63.1 million, including discontinued operations.

IAS 39 accounting rules had a negative effect of EUR 2.7 million on EBIT and EUR 13.7 million on net result (Group share), including discontinued operations. 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

PAYROLL AND RELATED BENEFITS

PAYROLL AND RELATED BENEFITS	((EUR thousand)
	2014	2015
Wages, salaries and direct social advantages	(447,532)	(475,149)
Other charges for personnel	(24,688)	(24,844)
Temporary staff	(9,316)	(10,567)
Share-based payments	(3,314)	(5,400)
Employee salaries	(484,850)	(515,960)
Employer's social security	(93,156)	(96,333)
Defined benefit contributions	(10,420)	(9,404)
Contribution to defined contribution plan	(15,468)	(15,169)
Employer's voluntary contributions (other)	(2,172)	(2,363)
Pensions paid directly to beneficiaries	(3,431)	(3,091)
Provisions for employee benefits (-increase / + use and reversals)	6,149	1,931
Pensions and other benefits	(25,342)	(28,096)
PAYROLL AND RELATED BENEFITS OF CONTINUING OPERATIONS	(603,346)	(640,390)
Payroll and related benefits of discontinued operations	(99,794)	(100,900)

AVERAGE HEADCOUNT IN CONSOLIDATED COMPANIES

	2014	2015
Executives and managerial staff	1,908	1,921
Non managers	8,371	8,478
Total including discontinued operations	10,279	10,399
of which discontinued operations	(1,519)	(1,463)
Total for continuing operations	8,760	8,936

SHARE-BASED PAYMENTS		(E	UR thousand)
	Notes	2014	2015
Number of stock options granted	F28	623,875	608,750
Valuation model		Present Econ	omic Value
Assumed volatility (% pa)		20.00	20.00
Risk-free interest rate (% pa)		0.80	(0.03)
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 (EUR)		4.25	5.38
Total fair value of options granted		2,654	3,278
28,900 shares granted at 37.80 EUR			1,092
28,000 shares granted at 38.67 EUR(*)			1,278
4,500 shares granted at 42,815 EUR			193
3,400 shares granted at 32.98 EUR		112	
21,000 shares granted at 31.595 EUR		664	
4,834 shares granted at 34.66 EUR		168	
Total fair value of shares granted		944	2,563
SHARE-BASED PAYMENTS		3,598	5,841
Share-based payments to discontinued operations		(284)	(441)
Total Share-based payments continuing operations		3,314	5,400

* including additional employer costs

The Group recognized a share-based payment expense of EUR 5,400 thousand 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 2015, shares have been granted to top management resulting in an extra charge of EUR 2,122 thousand 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

		(EUR thousand)
	2014	2015
Interest income	3,589	3,671
Interest expenses	(6,371)	(8,489)
Discounting of non-current provisions	(8,581)	(6,376)
Foreign exchange gains and losses	(6,498)	(12,070)
Other financial income	446	392
Other financial expenses	(4,166)	(1,713)
Total of continuing operations	(21,581)	(24,587)
Total of discontinued operations	(3,131)	(1,870)

The net interest charge in 2015 totaled EUR 4,818 thousand. The average weighted net interest rate remained stable at 1.54 %.

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 2015 are booked in Belgium, Germany, Brazil and France.

Foreign exchange results include realized exchange results and the unrealized 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

		(EUR thousand)
	2014	2015
Capital gains and losses on disposal of financial investments	155	2,975
Capital gains on equity investment	14,152	
Dividend income	99	31
Interest income from financial assets	48	2
Impairment results on financial investments	(4,723)	(5,588)
Total for continuing operations	9.731	(2,579)
Total for discontinued operations	33	33

The impairment result on financial investments mainly relates to impairments on the Nyrstar shares.

The capital gains realized are linked to the sale of SolviCore and the anticipation of the liquidation of the Belife joint ventures.

F13 Income taxes

		(EUR thousand)
	2014	2015
INCOME TAX EXPENSE		
Recognized in the income statement		
Current income tax	(49,323)	(67,708)
Deferred income tax	4,969	19,972
Total tax expense for continuing operations	(44,355)	(47,736)
Total tax expense for discontinued operations	(2,151)	(1,326)
RELATIONSHIP BETWEEN TAX EXPENSE (INCOME) AND ACCOUNTING PROFIT		
Result from operating activities	209,819	223,232
Financial result	(21,581)	(24,587)
Profit (loss) before income tax of consolidated companies for continuing operations	188,238	198,645
Weighted average theoretical tax rate (%)	(30,29)	(28,55)
Income tax calculated at the weighted average theoretical tax rate for continuing operations	(57,018)	(56,705)
Tax effect of		
Expenses not deductible for tax purposes	(11,322)	(11,080)
Tax-exempted revenues	14,357	11,364
Tax-exempt dividends from consolidates companies & Associates	(1,496)	264
Tax incentives deductible from the taxable base	25,751	22,465
Tax computed on other basis	(1,457)	(1,457)
Utilisation of previously unrecognised tax losses	2,740	7,100
Write down (or rev. of prev. write down) of DTA	(8,317)	(10,510)
Change in applicable tax rate	331	5,814
Tax holidays	1,806	562
Other tax credits (excluding R&D tax credits)	1,715	983
Non recoverable foreign withholding taxes	(5,012)	(6,891)
Previous years adjustments	(6,785)	(10,767)
Other	352	1,121
Tax expense at the effective tax rate for the year	(44,355)	(47,736)

The weighted average theoretical tax rate evolved from 30.29 % in 2014 to 28.55% in 2015, for the continuing operations.

Excluding the impact of non-recurring items and the IAS 39 effect, the recurring effective tax rate for 2015 was 21.84% for the continuing operations (21.41% including the discontinued operations). This is similar to the 23.4% in 2014 (21.81% including the discontinued operations).

F14 Intangible assets other than goodwill

	Development expenses	Concessions, patents,	C - (1,, -	CO ₂ emission	Other intangible	EUR thousand)
At the herizaine of equipments	capitalised	licences, etc.	Software	rights	assets	Total
At the beginning of previous year	53,816	2,050	35,205	8,916	9,787	109,775
Gross value	72,853	12,792	126,578	11,325	15,559	239,108
Accumulated amortization	(19,037)	(10,742)	(91,373)	(2,409)	(5,772)	(129,333)
Net book value at the beginning of previ-	53,816	2,050	35,205	8,916	9,787	109,775
ous year		- 	10		12.012	12 16 4
. acquisition through business combinations . additions	12/07	133 127	19	0	13,012	13,164
	12,687	127	4,655		6,793	24,261
. disposals			(3)	(607)	(5)	(615)
. amortization charged (included in "Depreciation and impairments")	(12,557)	(427)	(8,116)	0	(846)	(21,946)
. impairment losses recognized (included in "Depreciation and impairments")	(2,781)	0	(13)	0	(14)	(2,808)
. reversal of impairment losses (included in "Depreciation and impairments")				800		800
. emission rights allowances				1,058		1,058
. translation differences	1,111	76	433	0	1,081	2,701
. other movements	(6,986)	25	3,964	0	2,342	(655)
At the end of previous year	45,290	1,983	36,144	10,168	32,150	125,737
Gross value	77,937	13,258	133,140	10,736	38,786	273,857
Accumulated amortization	(32,646)	(11,275)	(96,996)	(567)	(6,636)	(148,121)
Net book value at the end of previous year	45,290	1,983	36,144	10,168	32,150	125,737
. Discontinued operations in opening balance		(721)	(1,014)	0	(307)	(2,042)
. additions	12,450	0	1,232	48	7,127	20,856
. disposals		156	(10)	(1,718)	(143)	(1,715)
. amortization charged (included in "Depreciation and impairments")	(11,930)	(497)	(8,422)	0	(3,922)	(24,771)
. impairment losses recognized (included in "Depreciation and impairments")	(3,137)		(11)			(3,147)
. reversal of impairment losses (included in "Depreciation and impairments")				307		307
. emission rights allowances				876		876
. translation differences	1,236	(14)	413		1,225	2,860
. other movements	(3,276)	5,887	9,387	0	(11,026)	972
At the end of the year	40,632	6,795	37,720	9,680	25,104	119,930
Gross value	88,705	18,395	129,538	9,702	35,090	281,429
Accumulated amortization	(48,073)	(11,600)	(91,819)	(21)	(9,986)	(161,499)
Net book value for continuing operations	40,632	6,795	37,720	9,680	25,104	119,930
Net book value for discontinued operations	·····	681	935	0	1,313	2,929

"Additions" are mainly explained by capitalized expenses in new information systems and internally generated developments. EUR 16.3 million are linked to own productions, of which EUR 11.3 million are development expenses.

The line 'other movements' mainly includes 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

		(EUR thousand)
	31/12/2014	31/12/2015
At the end of the previous year		
Gross value	115,788	152,402
Accumulated impairment losses	(7,313)	(12,066)
Net book value at the end of previous year	108,475	140,336
. discontinued operations in opening balance		(7,062)
. acquisition through business combinations	32,477	(806)
. impairment losses (included in "Depreciation and impairment results")	(4,142)	(5,042)
. translation differences	3,526	4,435
At the end of the year	140,336	131,860
Gross value	152,402	144,935
Accumulated impairment losses	(12,066)	(13,075)
Net book value for continuing operations	140,336	131,860
Net book value for discontinued operations		6,836

(FIID thousand)

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 mainly to impairments taken in USA, to exchange differences and to minor changes of the opening balance sheet and acquisition price of Todini (see Note F8).

The goodwill has been allocated to the primary segments as follows:

	Energy & Surface			Discontinued	(LOK C	nousanu)
	Catalysis	Technologies	Recycling	operations		Total
31/12/2014	37,074	77,851	18,349	7,062		140,336
31/12/2015	37,155	76,428	18,277	6,836		138,696

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 modeling on the basis of the Group's operational plans which typically look forward 5 years. On macro economic indicators such as currency and metal prices, the testing uses typically prevailing market conditions. The rates used are typically the ones observed on international stock exchanges in the last quarter of the year.

The 2015 modeling used average tax rates of 25% to 30% (in 2014, a flat rate of 25% was used) and a weighted average cost of capital post-tax of 8.5% (same as in 2014) in line with prevailing expectations on effective tax rate and capital structure. Terminal values were determined on the basis of a perpetual growth rate of on average 2% (same as in 2014). Inflation rates are based on guidance coming from national and international institutes like the NBB or ECB.

F16 Property, plant and equipment

						UR thousand)
		Plant,	_		Construction	
		machinery	Furniture	Other	in progress	
	Land and	and	and	tangible	and advance	
	buildings	equipment	vehicles	assets	payments	Total
At the beginning of previous year	327,171	435,999	59,332	3,633	172,427	998,563
of which leasing	1,447	0	82			1,529
Gross value	715,044	1,528,248	192,939	29,965	172,427	2,638,623
Accumulated depreciation	(387,874)	(1,092,249)	(133,606)	(26,332)		(1,640,060)
Net book value at the beginning of previous year	327,171	435,999	59,332	3,633	172,427	998,563
. aquisition through business combinations	753	3,819	210			4,782
. additions	26,348	25,838	8,718	378	129,513	190,797
. disposals	(313)	(1,154)	(774)	4	(1,016)	(3,253)
. depreciations (included in "Depreciation and impairments")	(30,311)	(100,733)	(18,010)	(246)		(149,301)
. net impairment losses recognized (included in "Depreciation and impairments")	(2,704)	(8,116)	(530)			(11,350)
. translation differences	9,181	13,426	694	178	7.601	31,080
. other movements	33,265	104,317	12.063	(1,852)	(147,376)	418
At the end of previous year	363,390	473,396	61,703	2,095	161,150	1,061,735
of which leasing	1.312	475,570	77	2,073	101,150	1,389
Gross value	784,638	1,644,985	205,446	27,140	161,150	2,823,358
Accumulated depreciation	(421,248)	(1,171,589)	(143,742)	(25,045)	101,150	(1,761,624)
Net book value at the end of previous year				(23,043) 2,095	161,150	y 'ny ha yh yk ny ha yh yh ny 'ny ha yh ny 'ny ha yh yh yh
. Discontinued operations in opening balance	363,390	473,396	61,703			1,061,735
. additions	(34,882)	(48,622) 26,678	(4,094)	(712) 797	(12,312)	(100,622)
	4,616		6,702		165,701	204,494
. disposals . depreciations (included in "Depreciation and	(868)	(1,483)	(482)	0	(388)	(3,221)
impairments")	(26,695)	(95,641)	(16,854)	(279)		(139,470)
. net impairment losses recognized (included in "Depreciation and impairments")	(699)	(8,620)	279	0	0	(9,041)
. translation differences	4,396	3,545	(642)	74	2,427	9,800
. other movements	36,033	114,938	7,398	47	(159,499)	(1,083)
At the end of the financial year	345,290	464,192	54,009	2,021	157,079	1,022,591
of which leasing	157	(4)	12			165
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 for continuing operations	345,290	464,192	54,009	2,021	157,079	1,022,591
Net book value for discontinued operations	31,496	51,535	3,494	838	29,139	116,502
Leasing						
Gross value	490	59	33			583
Accumulated amortization	(334)	(63)	(21)			(417)
Net book value for continuing operations	157	(4)	12			165

The non-maintenance related additions to property, plant and equipment primarily relate to Umicore's growth projects. In Recycling major investments linked to the capacity expansion in Hoboken were successfully carried out during the year. Investments in Catalysis were mainly linked to the construction of the production facilities in Poland and Thailand, as well as the construction of Ordeg's new technology development centre in South Korea. Capital expenditures in Energy & Surface Technologies were primarily related to the ongoing production capacity expansions for Rechargeable Battery Materials in China and South Korea.

The line 'other movements' mainly includes 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:

INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

	Measurement		
Country	currency	Percentage	Percentage
		2014	2015
China	CNY	40.00	40.00
Luxembourg	USD	40.22	40.22
China	CNY	40.00	40.00
South Korea	KRW	50.00	50.00
Germany	EUR	50.00	
Germany	EUR	50.00	
Belgium	EUR	49.00	
Belgium	EUR	51.00	
Peru	PEN	40.00	40.00
Belgium	EUR	50.00	50.00
	China Luxembourg China South Korea Germany Germany Belgium Belgium Peru	ChinaCNYLuxembourgUSDChinaCNYSouth KoreaKRWGermanyEURGermanyEURBelgiumEURBelgiumEURPeruPEN	CountrycurrencyPercentage 2014ChinaCNY40.00LuxembourgUSD40.22ChinaCNY40.00South KoreaKRW50.00GermanyEUR50.00GermanyEUR50.00BelgiumEUR49.00BelgiumEUR51.00PeruPEN40.00

At the end of June 2015, Umicore and Solvay announced that they signed an agreement to sell SoviCore to Toray, a leading Japanese specialty chemicals company. Early January 2016, Umicore sold its shares in Belife and Belife Intermediates to their partner Prayon. The deconsolidation has been anticipated in the December closing for both joint ventures.

Rezinal and leqsa are part of the discontinued operations and the 2014 income statement figures have been restated accordingly to show the continuing operations only.

The elements recognized 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 5% 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, where 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 USD. Umicore is represented in the Board of Directors and the audit committee of Element Six Abrasives, which enables Umicore 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.

		(EUR thousand)
Net book value	Goodwill	Total
162,226	46,622	208,846
(17,546)	(4,952)	(22,498)
1,764		1,764
9,827		9,827
(16,862)		(16,862)
2,315		2,315
799		799
5,300	310	5,610
147,823	41,980	189,801
65,263	0	65,263
17,987	4,865	22,852
	162,226 (17,546) 1,764 9,827 (16,862) 2,315 799 5,300	162,226 46,622 (17,546) (4,952) 1,764 9,827 (16,862) 2,315 799 5,300 310 147,823 41,980 65,263 0

Umicore's share in the aggregated balance sheet and profit and loss items of the associates would have been as follows:

officeres share in the oggregated balance sheet and pront and ras		(EUR thousand)
	31/12/14	31/12/15
Assets	246,127	225,059
Liabilities	131,380	125,628
Turnover	276,426	196,424
Net result	17,155	6,397

Umicore's share in the aggregated balance sheet items of the joint ventures would have been as follows:

,		(EUR thousand)
	31/12/14	31/12/15
Current assets	105,426	77,819
Non-current assets	32,272	30,764
Current liabilities	59,072	42,970
Non-current liabilities	6,858	349

Umicore's share in the aggregated profit and loss items of the joint ventures would have been as follows:

······································		(EUR thousand)
	31/12/14	31/12/15
Operating result	4,532	4,449
Financial result	(248)	(513)
Тах	(1,663)	(506)
Net result Group	2,620	3,430

F18 Available-for-sale financial assets and loans granted

		(EUR thousand
	Availale-for-sale financial	Loans
	assets	granteo
NON-CURRENT FINANCIAL ASSETS		
At the beginning of previous year	21,183	4,971
. increase	18,842	
. decrease	(4,985)	(7
. impairment losses (included in "Income from other financial instruments")	0	(3,800
. reversals of impairment losses (included in "Income from other financial instruments")	226	
. translation differences		152
. fair value recognized in equity	14,992	
. other movements		(105
At the end of previous year	50,258	1,212
. discontinued operations in opening balance	(18)	
. increase	76	77
. impairment losses (included in "Income from other financial instruments")	(a) (5,292)	
. translation differences	(31)	9
. fair value recognized in equity	(b) (15,776)	
. other movements	19	15.
At the end of the financial year for continuing operations	29,236	1,534
CURRENT FINANCIAL ASSETS		
At the end of the preceding financial year	0	6,870
. increase		3,18
. decrease		(3,364
. write-downs (included in "Income from other financial instruments")	(c)	(4,050
translation differences		1
. other		
At the end of the financial year for continuing operations	0	2,654

(a) mainly related to impairments taken on the Nyrstar shares

(b) mainly related to the fair value adjustment on the Nyrstar shares.

(c) mainly related to impairment losses on loans granted to joint ventures

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F19 Inventories

		(EUR thousand)
	31/12/14	31/12/15
ANALYSIS OF INVENTORIES		
Base product with metal hedging - gross value	1,006,912	923,193
Base product without metal hedging - gross value	145,368	143,983
Consumables - gross value	68,423	55,398
Write-downs	(52,629)	(71,614)
Advances paid	2,508	1,950
Contracts in progress	12,363	760
Total inventories for continuing operations	1,182,945	1,053,669
Total of discontinued operations		124,893

Inventories have decreased by EUR 129.3 million compared with December 2014. This decrease can mainly be explained by the fact that in 2014, the inventory figures still contained EUR 139.3 million of inventories linked to the discontinued operations while in 2015, this inventory has been isolated. Impairments of permanently tied-up metal inventories had a negative impact of EUR 18.0 million for continuing operations.

Based on metal prices and currency exchange rates prevailing at the closing date, the value of metal inventory would be about EUR 553.9 million higher than the current book value. However, most of these inventories cannot be realized 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

			(EUR thousand)
	Notes	31/12/14	31/12/15
NON CURRENT		//	
Cash guarantees and deposits		9,481	7,682
Other receivables maturing > 1 year		7,643	7,089
Assets employee benefits		431	423
Total for continuing operations		17,555	15,194
Total of discontinued operations			224
CURRENT			
Trade receivables (at cost)		739,569	701,815
Trade receivables (write down)		(7,060)	(8,570)
Other receivables (at cost)		65,417	70,833
Other receivables (write down)		(6,097)	(5,252)
Interest receivable		124	(80)
Fair value receivable financial instruments held for cash-flow hedging	F33	2,437	2,801
Fair value receivable other financial instruments	F33	9,799	7,070
Deferred charges and accrued income		22,800	61,187
Total for continuing operations		826,989	829,805
Total of discontinued operations			91,546

Current trade receivables have increased by EUR 2.8 million. This increase would have been much higher if the balance sheet of 2014 would have been without the discontinued operations as in 2015. The increase is mainly due to higher business volumes through the year.

Other non-current receivables include an amount of EUR 6,207 thousand related to "reimbursement rights" linked to medical plan liabilities that Umicore France took over from Nyrstar France in 2007 and which Nyrstar France will compensate over the lifetime of these liabilities (see also note F27 on Employee Benefits).

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(EUR thousand)

		Overdue between				
	Total	Not due	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 securitized receivables) - at cost	721,381	578,352	104,825	20,182	8,376	9,646
Other receivables - at cost	65,418	62,042	235	1,730	0	1,411
AGEING BALANCE ANALYSIS AT THE END OF YEAR						
Trade receivables (w/o doubtful and securitized receivables) - at cost	685,205	494,306	114,663	61,363	8,569	6,303
Other receivables - at cost	66,956	66,067	(764)	623	32	997

Credit risk - trade receivables

			(EUR thousand)
	Trade receivables (write-down)	Other receivables (write-down)	Total
AT THE BEGINNING OF PREVIOUS YEAR	(8,282)	(5,802)	(14,082)
. Impairment losses recognized in P&L	(1,096)	(296)	(1,392)
. Reversal of impairment losses	1,713	1	1,715
. Impairment written off against asset carrying amount	566		566
. Other movements	171		170
. Translation differences	(139)		(139)
At the end of previous year	(7,067)	(6,098)	(13,165)
AT THE BEGINNING OF THE FINANCIAL YEAR	(7,067)	(6,098)	(13,165)
. Discontinued operations in opening balance	1,632	462	2,094
. Impairment losses recognized in the P&L	(4,722)	232	(4,490)
. Reversal of impairment losses	550	139	688
. Impairment written off against asset carrying amount	115		115
. Other movements	(14)		(14)
. Translation differences	937	13	949
At the end of the financial year for continuing operations	(8,570)	(5,253)	(13,818)
Total of discontinued operations	(1,677)	(462)	(2,139)

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. EUR 306 million of the group trade receivables of the continuing operations are covered by a policy where indemnification in case of non payment amounts to 95% with an annual maximum limit of EUR 20 million. The other policy covers EUR 230 million of trade receivables with a global annual deductible of EUR 5 million and a maximum indemnity per year of EUR 70 million.

Finally some of our businesses function without credit insurance and instead credit limits are set based on financial information and business knowledge. Theses limits are duly approved by management.

(FUD thousand)

F21 Deferred tax assets and liabilities

		(EUR thousand)
	31/12/2014	31/12/2015
TAX ASSETS AND LIABILITIES		
Income tax receivables	34,264	35,659
Deferred tax assets	104,823	104,057
Income tax payable	(63,958)	(54,889)
Deferred tax liabilities	(17,520)	(6,235)
Net deferred taxes for discontinued operations		14,232

	Asse	ts	Liabili	ties	Net	
	2014	2015	2014	2015	2014	2015
At the end of preceding financial year	90,530	104,823	(28,164)	(17,520)	62,366	87,303
Discontinued operations in opening balance		(13,344)		(164)		(13,507
Deferred tax recognized in the P&L	744	10,564	4,059	9,407	4,804	19,97
Deferred tax recognized in equity	12,559	5,597	10,153	2,051	22,711	7,648
Acquisitions through business combination	21	21	(3,519)	(191)	(3,498)	(170
Translation adjustments	970	(3,550)	(48)	182	922	(3,368
Other movements	0	(55)	(2)	0	(2)	(55
At the end of financial year for continuing operations	104,823	104,057	(17,520)	(6,235)	87,303	97,822
Total of discontinued operations		23,224		(8,992)		14,232
DEFERRED TAX IN RESPECT OF EACH TYPE OF TEMPORARY DIFFERENCE						
Intangible assets	16,915	18,881	(19,435)	(19,151)	(2,520)	(270
Goodwill on fully consolidated companies	182	187	(1,976)	(408)	(1,794)	(221
Property, plant and equipment	4,639	5,015	(20,843)	(17,773)	(16,204)	(12,758
Long term receivables	159	48	(3,597)	(37)	(3,438)	1
Inventories	28,343	19,486	(24,110)	(21,060)	4,233	(1,574
Trade and other receivables	4,114	11,552	(6,477)	(2,529)	(2,363)	9,02
Group Shareholder's equity	162	108	(6,205)	(93)	(6,043)	1
Long Term Financial Debt and other payable	390	5,616	(1,356)	(977)	(966)	4,63
Provisions Employee Benefits	68,726	62,431	(749)	(1,748)	67,977	60,68
Provisions for Environment	18,516	17,888	(1,710)	(506)	16,806	17,38
Provisions for other liabilities and charges	7,194	5,543	(449)	(402)	6,745	5,14
Current Financial Debt	2,618	35	(4)	(3)	2,614	3.
Current Provisions for Environment	3,802	2,582	0		3,802	2,58
Current Provisions for Other Liabilities & Charges	3,152	4,189	(48)	(13)	3,104	4,17
Trade and other payables	18,513	19,523	(3,586)	(2,068)	14,927	17,45
Total deferred tax due to temporary differences	177,425	173,084	(90,545)	(66,768)	86,880	106,31
Tax losses to carry forward	46,272	84,032			46,272	84,03
Investments deductions	4,647	2,095			4,647	2,09
Notional interest carried forward	8,891	11,258			8,891	11,25
Other	2,718	5,934			2,718	5,93
Deferred tax assets not recognized	(62,105)	(111,814)			(62,105)	(111,814
Total tax assets/liabilities	177,848	164,590	(90,545)	(66,768)	87,303	97,82
Compensation of assets and liabilities within same entity	(73,025)	(60,533)	73,025	60,533	0	(
Net amount	104,823	104,057	(17,520)	(6,235)	87,303	97,822

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	2014	2015	2014	2015
	Base	Base	Тах	Тах
AMOUNT OF DEDUCTIBLE TEMPORARY DIFFERENCES, UNUSED TAX LOSSES OR TAX CREDITS FOR WHICH NO DEFERRED TAX ASSET IS RECOGNIZED IN THE BALANCE SHEET				
Expiration date with no time limit	220,226	350,564	62,105	111,814

The changes of the period in temporary differences are charged in the income statement except those arising from events that were recognized directly in the other comprehensive income.

The main movements in deferred tax recognized directly in the other comprehensive income are deffered taxes generated by temporary differences included within the lines "Trade and other payables" (positive by EUR 4,963 thousand) and "Provisions for employee benefits" (positive by EUR 2,364 thousand).

Deferred tax assets are only recognized to the extent that their utilization 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 recognized.

Unrecognized deferred tax assets of EUR 111,814 thousand mainly arise from tax losses (EUR 81,904 thousand), notional interests carried forward (EUR 11,257 thousand), deductions for investments (EUR 2,061 thousand) and temporary differences on property plant and equipment (EUR 6,597 thousand), inventories (EUR 6,239 thousand) and intangible assets (EUR 2,605 thousand).

In accordance with IAS 12, a deferred tax liability, amounting potentially to EUR 56 million, has not been recognized on untaxed reserves of the Belgian companies because management confirms that this liability will not be incurred in a foreseeable future.

F22 Net cash and cash equivalents

		(EUR thousand)
	31/12/14	31/12/15
CASH AND CASH EQUIVALENTS		
Short-term investments : bank term deposits	3,857	12,280
Short-term investments : term deposits (other)	128	0
Cash-in-hands and bank current accounts	85,807	62,207
Total cash and cash equivalents	89,791	74,486
Bank overdrafts	9,905	8,318
(included in current financial debt in the balance sheet)		
Net cash as in Cash Flow Statement for continuing operations	102,943	66,167
Total of discontinued operations	(23,057)	37,872

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.

(EUR thousand)

F23 Currency translation differences and other reserves

Changes in postemployment Available-Deferred benefits, for-sale Cash arising from Sharetaxes directly financial flow changes in based Currency actuarial payment assets hedae recognized translation in OCI differences Total гезегуез гезегуез assumptions гезегуез Balance at the beginning of 784 5,853 34,191 (138, 343)32,547 (102,469) (167,437) previous year Gains and losses recognized in other 14,992 (9, 173)18,791 (52, 289)3,598 (24,081)comprehensive income Gains and losses derecognized out of (5, 435)2,920 0 0 (2,515)other comprehensive income Transfer from/to retained earnings (2,068)(2,068)Other movements 63,755 60.184 Exchange differences Balance at the end of previous year 15,777 (8,783) 34,077 (38,715) (135,954) 55,871 (194, 181)Balance at the beginning of the year 15,777 (8,783)55,871 34,077 (38,715) (194, 181)(135,954)Discontinued operations in opening (3, 140)(3, 140)balance Gains and losses recognized in other (17,566)8,597 (10, 469)5,841 comprehensive income Gains and losses derecognized out of 3,983 (812) 3,171 other comprehensive income Transfer from/to retained earnings 2,159 (11, 228)(9,069)Change in scope 590 590 Other movements (100)(100)Exchange differences 492 (226)(3, 432)1,523 (1,642)Balance at the end of the year 0 (21,873) 63,330 (208, 483)28,690 (37,191) (175,517)

Gains and losses recognized 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 losses recognized in the OCI regarding cash flow hedges (EUR 17,566 thousand) 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 losses derecognized from OCI (EUR 3,983 thousand) are the fair values of the cash-flow hedging instruments existing at the opening which expired during the year. A loss of EUR 4.5 million went through the income statement, as a result of expired cash-flow hedges.

New net actuarial losses on the defined post-employment benefit plans have been recognized in OCI for EUR 10,469 thousand.

The 2015 shares and stock option plans have led to a share-based payment reserve increase of EUR 5,841 thousand, including discontinued operations (refer to note F10 on employee benefits). EUR 11,228 thousand, linked to exercized options and free shares plans, have been transfered to retained earnings.

The change in currency translation differences is mainly due to the combined effect of the weakening of the ZAR, BRL, NOK, CAD and ARS compared to the EUR currency and the strenghtening of the CNY, USD, KRW, INR, JPY, HKD and CHF compared to the EUR currency.

F24 Financial debt

		(EUI	≀ thousand)
	Bank loans	Other loans	Total
NON-CURRENT			
At the beginning of previous year	20,000	6,397	26,396
. Increase		525	525
. Decrease		(488)	(488)
. Translation differences		(8)	(8)
. Transfers		(3,854)	(3,854)
At the end of previous year	20,000	2,572	22,571
. Discontinued operations in opening balance		(1,120)	(1,120)
. Increase	50,000		50,000
. Decrease	(13)	(136)	(148)
. Transfers	25	(30)	(4)
At the end of the financial year for continuing operations	70,013	1,286	71,298
Total of discontinued operations	0	803	803

Bank loans	Other loans		Total
0	4,528		4,528
0	(211)		(211)
	(4,178)		(4,178)
	139		139
0	335		335
	Bank loans 0 0	Bank loans Other loans 0 4,528 0 (211) (4,178) 139 0 335	Bank loans Other loans 0 4,528 0 (211) (4,178) 139 0 335

	Short term bank loans	Bank overdrafts	Short term loan: commercial paper	Other Ioans	Total
CURRENT					
At the end of the preceding financial year	119,747	9,905	228,922	2,411	360,985
. Increase / decrease (including CTD's)	(14,816)	(1,586)	(3,437)	(2,414)	(22,253)
At the end of the financial year	104,932	8,318	225,485	(3)	338,732
Total of discontinued operations	22,377	0	0	0	22,377

Including the EUR 9.8 million net shares bought back in 2015, the net financial debt has increased by EUR 37 million including acquisitions and dividend payouts and the fact that in 2015 the discontinued operations have been isolated.

The bank loans mainly consist of:

- a EUR 20 million bank loan maturing in December 2018. The fair value of the bank loan was EUR 21.4 million on 31 December 2015 based on the DCF-method;
- short term borrowings for EUR 104.9 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;
- · bank overdrafts for EUR 8.3 million assimilated to utilization of overnight bank credit facilities.

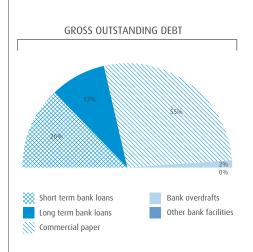
The current financial debt also includes EUR 225.5 million of Commercial Paper with terms under one year.

On 31 December 2015, there were EUR 50 million of outstanding advances under the EUR 300 million Syndicated Bank Credit Facility maturing in October 2020 and no outstanding advances under the EUR 215 million Syndicated Bank Credit Facility maturing in July 2018.

The aforementioned Syndicated Bank Credit Facilities require the Company to comply with certain financial covenants. Unicore has not faced any breach of those covenants in 2015 or in previous years.

The long term debts only include debts in Euro.

The net gearing ratio end of 2015 of 15.3% (14.6% in 2014) is well within the group's targeted capital structure limits.



(EUR thousand)

	EUR	
	Euro	Total
Analysis of long term debts by currencies (including current portion)		
Bank loans	70,013	70,013
Other loans	1,424	1,424
Non-current financial debts (including current portion)	71,437	71,437

		(EUR thousand)
	2014	2015
Non current financial debt	22,571	71,298
Current portion of non current financial debt	4,528	139
Current financial debt	360,985	338,732
Cash and cash equivalents	(89,791)	(74,486)
Net financial debt	298,293	335,683
Total of discontinued operations	0	(14,357)
Total net financial debt including discontinued operations		321,326

		(EUR million)
	2014	2015
Net financial debt including discontinued operations	298.3	321.3
Equity	1,750.1	1,785.0
Total	2,048.4	2,106.3
Gearing ratio (%)	14.6	15.3

F25 Trade debt and other payables

			(EUR thousand)
	Notes	31/12/14	31/12/15
NON-CURRENT			
Other long-term debts		3,208	9,942
Investment grants and deferred income from grants		18,282	14,712
Total for continuing operations		21,490	24,654
Total of discontinued operations			3,045
Current			
TRADE PAYABLES		855,877	737,505
Advances received on contracts in progress		17,128	16,707
Tax payable (other than income tax)		16,946	30,657
Payroll and related charges		115,642	101,765
Other amounts payable		19,394	28,171
Dividends payable		8,220	8,183
Accrued interest payable		488	306
Fair value payable financial instrument held for cash flow hedging	F33	11,571	24,565
Fair value payable other financial instruments	F33	13,651	14,909
Accrued charges and deferred income		89,682	132,603
Total for continuing operations		1,148,599	1,095,371
Total of discontinued operations			157,648

Trade payables decreased overall by EUR 53.2 million. This decrease is mainly due to the fact that in 2014, the discontinued operations were still under the payables line in the balance sheet while not in 2015.

(FUD thousand)

The tax payables (other than income tax) mainly include VAT payables.

F26 Liquidity of the financial liabilities

					(E	UR thousand)
		Earliest	contractual ma	iturity		
		1 to 3	3 Months -	1 to 5		
Previous financial year	< 1 Month	Months	1 Year	Years	> 5 years	Total
FINANCIAL DEBT	129,118	54,829	181,566	22,571	i i	388,084
Current	129,118	54,829	181,566			365,513
Short-term bank loans	76,744	35,485	7,519			119,747
Bank overdrafts	8,464	1,440	0			9,905
Short-term loan: commercial paper	43,899	16,386	168,636			228,922
Other loans	0	1,495	916			2,411
Current portion of other long-term loans	11	22	4,495			4,528
Non-current				22,571		22,571
Bank loans				20,000		20,000
Other loans				2,571		2,571
TRADE AND OTHER PAYABLES	744,204	293,600	105,574	10,306	16,406	1,170,089
Current	744,204	293,600	105,574	5,221		1,148,599
Trade payables	602,016	243,003	10,857			855,877
Advances received on contracts in progress	552	2,392	14,184			17,128
Tax payable (other than income tax)	5,819	2,247	8,880			16,946
Payroll and related charges	47,380	21,610	46,653			115,642
Other amounts payable	8,135	1,383	9,877			19,394
Dividends payable	8,220					8,220

(EUR thousand)

	Earliest contractual maturity							
		1 to 3	3 Months -	1 to 5				
Previous financial year	< 1 Month	Months	1 Үеаг	Years	> 5 years	Total		
Accrued interest payable, third parties	106	370	12			488		
Fair value payable financial instrument held for cash flow hedging	330	811	5,362	5,068		11,571		
Fair value payable other financial instruments	5,574	4,506	3,418	153		13,651		
Accrued charges and deferred income	66,073	17,279	6,330			89,682		
Non-current				5,085	16,406	21,490		
Other long-term debts				236	2,972	3,208		
Investment grants and deferred income from grants				4,849	13,433	18,282		

(EUR thousand)

	Earliest contractual maturity					
		1 to 3	3 Months -	1 to 5		
Financial year	< 1 Month	Months	1 Year	Years	> 5 years	Total
FINANCIAL DEBT	88,371	84,833	165,667	71,298	0	410,169
Current	88,371	84,833	165,667			338,871
Short-term bank loans	63,632	34,846	6,454			104,932
Bank overdrafts	8,283	36				8,318
Short-term loan: commercial paper	16,445	49,932	159,108			225,485
Other loans		(3)				(3)
Current portion of other long-term loans	12	23	105			139
Non-current				71,298		71,298
Bank loans				70,013		70,013
Other loans				1,285		1,285
TRADE AND OTHER PAYABLES	671,370	259,365	152,465	19,733	17,094	1,120,027
Current	671,370	259,365	152,465	12,172		1,095,372
Trade payables	505,144	205,656	26,705			737,505
Advances received on contracts in progress	54	3,169	13,484			16,707
Tax payable (other than income tax)	15,939	6,255	8,464			30,657
Payroll and related charges	29,595	21,585	50,585			101,765
Other amounts payable	5,675	6,248	16,248			28,171
Dividends payable	8,183	0	0			8,183
Accrued interest payable, third parties	84	172	50			306
Fair value payable financial instrument held for cash flow hedging	688	2,656	12,371	8,850		24,565
Fair value payable other financial instruments	4,339	2,335	4,913	3,322		14,909
Accrued charges and deferred income	101,669	11,289	19,645			132,603
Non-current				7,561	17,094	24,654
Other long-term debts				129	9,813	9,942
Investment grants and deferred income from grants				7,432	7,280	14,712

F27 Provisions for employee benefits

The Group has various legal and constructive defined benefit obligations, the vast majority of them being "final pay" plans situated in the Belgian, French and German operations.

					(EUR thousand)
	Post-		Termination		
	employment	Post-	benefits	Other long-	
	benefits,	employment	early	term	
	pensions	benefits -	retirement &	employee	
	and similar	other	similar	benefits	Total
At the end of the previous year	255,618	26,922	30,272	18,890	331,702
. Discontinued operations in opening balance	(14,239)	(17,027)	(1,472)	(5,233)	(37,970)
. Increase (included in "Payroll and related benefits")	19,547	754	5,163	1,566	27,030
. Reversal (included in "Payroll and related benefits")	(176)	(30)	0	(16)	(221)
. Use (included in "Payroll and related benefits")	(18,043)	(458)	(9,313)	(760)	(28,573)
. Interest and discount rate impacts (included in "Finance cost - Net")	5,663	168	244	265	6,340
. Translation differences	110	(367)	119	16	(121)
. Transfers	(1,433)	(12)	4,919	(81)	3,394
. Recognized in other comprehensive income	10,930	(153)	0	0	10,777
At the end of the financial year for continuing operations	257,978	9,798	29,932	14,649	312,357
Total of discontinued operations	14,489	15,752	814	5,569	36,624

(EUR thousand)

		Movements	
	31/12/14	2015	31/12/15
Belgium	49,011	650	49,661
France	7,290	777	8,067
Germany	225,333	14,096	239,429
Subtotal	281,634	15,523	297,157
Other entities	12,098	3,102	15,200
Total for continuing operations	293,732	18,625	312,357
Discontinued operations	37,970	(1,346)	36,624

	(EUR thousand)
Reimbursement rights	
At the end of the previous year	6,556
Actual reimbursement	(379)
Expected return	137
Actuarial gains and losses on reimbursement rights	(108)
At the end of the financial year	6,206

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 "Recognized in equity" 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.

As described in note F20, a non-current receivable has been recognized as "reimbursement rights" linked to medical plan liabilities that Umicore France took over from Nyrstar France in 2007 and which Nyrstar France will compensate over the lifetime of these liabilities. Whenever there is a change in these liabilities this change will affect the reimbursement rights under the non current receivables in the same way. When the change of the period is related to changes in actuarial assumptions, both the liability and the asset are adjusted through the statement of comprehensive income.

The following disclosure requirements under IAS 19 amended were derived from the reports obtained from external actuaries.

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Umicore defined benefit pension schemes for the 3 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 EUR 176.4 million and assets for EUR 126.7 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 analyzed 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.
Sermany	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 EUR 245.9 million and assets for EUR 6.5 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.
rance	Characteristics of the Defined Benefit plans In France, two main defined benefit plans are in place.
	• The retirement plans: in addition to State plans, the company is legally required to pay lump sums to employees when they retire from service. The amounts are based on years of service in the company and on the base salary according to the collective bargaining agreement in force. This scheme covers all employees under permanent contract within the company.
	• The Medical plan: The employer pays a contribution for a healthcare plan for retirees. Benefits convert to the spouse when retirees die.
	All defined benefit plans represent a defined benefit obligation of EUR 8.3 million and assets for EUR 0.2 million.
	Characteristics of the Other Long Term plan In France, there is a jubilee plan in place. An amount is paid at 20, 30, 35 and 40 years of seniority. This scheme covers all employees under permanent contract within the company.
	Funding The funding is done via a general EURO fund of a life insurance company. This fund is mainly composed by high quality fix rate bonds (79%), shares (10%) and real estate (3%).

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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 IAS19 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 organisation does not guarantee a certain result on contributions until retirement age. If the organisation 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 when it was assessed that reliable estimate could be made and assumptions used were fully in line with those used for the other defined benefit plans.

Total defined benefit obligations related to those plans amounts to EUR 59.2 million as at the end of December 2015 and related plan assets to EUR 56.5 million.

	(EUR thousand)		
	2014	2015	
CHANGE IN BENEFIT OBLIGATION			
Benefit obligation at beginning of the year	440,757	527,028	
Discontinued operations in opening balance		(78,391)	
Current service cost	23,766	27,350	
Interest cost	14,797	10,488	
Plan Participants' Contributions	450	763	
Actuarial (gain)/loss - changes in demographic assumptions	(168)	147	
Actuarial (gain)/loss - changes in financial assumptions	76,837	8,552	
Actuarial (gain)/loss - experience adjustments	(4,543)	5,399	
Benefits paid from plan/company	(25,237)	(35,027)	
Expenses paid	(1,568)	(1,322)	
Plan combinations	329	1,461	
Exchange rate changes	1,608	2,579	
Benefit obligation at end of the year	527,028	469,027	

(EUR thousand)

	2014	2015
CHANGE IN PLAN ASSETS		
Fair value of plan assets at the beginning of the year	172,954	195,326
Discontinued operations in opening balance		(40,421)
Expected return on plan assets	6,171	3,676
Actuarial gain/(loss) on plan assets	10,444	3,320
Employer contributions	30,973	27,766
Member contributions	450	763
Benefits paid from plan/company	(25,237)	(35,027)
Expenses paid	(1,638)	(1,355)
Net transfer in/(out) (including the effect of any business combinations/divestitures)		184
Exchange rate changes	1,209	2,438
Fair value of plan assets at the end of the year	195,326	156,670

Pension plans mainly in Belgium, Liechtenstein 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.

	(E	
	2014	2015
AMOUNT RECOGNIZED IN THE BALANCE SHEET		
Defined benefit obligations	527,028	469,027
Fair value of plan assets	195,326	156,670
Funded Status	331,702	312,357
Effect of asset ceiling/onerous liability		
Net liability (asset)	331,702	312,357
COMPONENTS OF PENSION COSTS		
Amounts recognized in profit and loss statement		
Current service cost	21,359	27,350
Interest cost	13,247	10,488
Interest income on plan assets	(5,009)	(3,676
Expected return on reimbursement rights	(196)	(137
Remeasurement of Other Long Term Benefits	782	114
Administrative expenses and taxes	30	33
Total pension cost recognized in P&L account	30,213	34,172
Total of discontinued operations	3,056	4,759
Amounts recognized in other comprehensive income		
Cumulative actuarial gains and losses at opening	115,408	175,406
Discontinued operations in opening balance		(15,127
Actuarial gains and losses of the year	60,827	10,644
Minorities	(974)	120
Other movements	18	(2,159
Exchange differences	127	335
Total recognized in the OCI at subsidiaries	175,406	169,220
Actuarial gains and losses at associates and joint ventures	27,514	29,725
Total recognized in the OCI	202,920	198,945
Total of discontinued operations		13,148
Remeasurements (recognized in other comprehensive income)		
Effect of changes in demographic assumptions	(168)	137
Effect of changes in financial assumptions	65,269	8,335
Effect of experience adjustments	(4,829)	5,632
(Return) on plan assets (excluding interest income) *	(7,334)	(3,440
(Return) on reimbursement rights (excluding interest income)	(515)	108
Total remeasurements included in Other Comprehensive Income	52,423	10,772
Total of discontinued operations	7,741	(1,895

The interest cost and return on plan assets as well as the discount rate impact on the non-post employment benefit plans, are recognized 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".

Actuarial gains of the year recognized in equity originate mainly from a change in discount rates on the pension plans and differences between the expected and actual return on plan assets.

	2014	2015
PRINCIPAL ACTUARIAL ASSUMPTIONS		
Weighted average assumptions to determine benefit obligations at year end		
Discount rate (%)	2.31	2.12
Rate of compensation increase (%)	2.76	2.94
Rate of price inflation (%)	1.98	2.00
Rate of pension increase (%)	1.23	1.61
Weighted average assumptions used to determine net cost		
Discount rate (%)	3.38	2.33
Rate of compensation increase (%)	2.71	2.90
Rate of price inflation (%)	2.03	1.98
Rate of pension increase (%)	0.79	1.47

	20	2015		
		Fair Value of plan		
	Fair value of all	assets with quoted		
	plan assets	market price		
Plan assets				
Cash and cash equivalents	23,907	23,902		
Equity instruments	33,075	33,047		
Debt instruments	46,802	46,661		
Real estate	8,983	8,978		
Assets held by insurance company	40,743	5,987		
Other	3,160	2,913		
Total plan assets	156,670	121,488		

Assumptions are recommended by the local actuaries in line with the IAS19 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.

		2015
	Valuation	Valuation
	trend	trend
	+0,25%	-0,25%
Sensitivity to trend rate assumptions on discount rate		
Present value of defined benefit obligation	452,583	487,426
Weighted average duration of benefit obligation (in years)	14.33	15.71
Sensitivity to trend rate assumptions on inflation rate		
Present value of defined benefit obligation	475,359	454,090
Sensitivity to trend rate assumptions on salary increase rate		
Present value of defined benefit obligation	475,182	463,472

	(EUR thousand)		
	2014	2015	
BALANCE SHEET RECONCILIATION			
Balance sheet liability (asset) as of previous year	267,837	331,702	
Change in accounting policies	160		
Discontinued operations in opening balance		(37,970)	
Pension expense recognized in P&L in the financial year	33,269	34,172	
Amounts recognized in SoCI	60,164	10,772	
Employer contributions via funds in the financial year	(17,612)	(15,515)	
Employer contributions paid directly in the financial year	(13,361)	(12,251)	
Credit to reimbursements	711	29	
Net transfer in/(out) (including the effect of any business combinations/diversitures)	329	1,277	
Exchange rate adjustment - (gain)/loss	205	141	
Balance sheet liability (asset) as of end of the year	331,702	312,357	

At 31 December	2011	2012	2013	2014	2015
Present value of defined benefit obligation	319,517	399,193	440,757	527,028	469,027
Fair value of plan assets	125,785	139,573	172,954	195,326	156,670
Deficit (surplus) in the plan	193,732	259,620	267,803	331,702	312,357
Experience adjustments on plan assets	6,871	(5,834)	(31,125)	(10,444)	(3,320)
Experience adjustments on plan liabilities	6,929	5,515	5,274	(4,543)	5,399

	(EUR thousand)
	2015
EXPECTED CASH FLOWS FOR FOLLOWING YEAR	
Expected employer contributions	26,275
Expected total benefit payments	
Year 1	25,711
Year 2	18,712
Year 3	18,270
Year 4	21,354
Year 5	20,810
Next 5 years	118,069

F28 Stock option plans granted by the company

Number of options still to be	Exercise price EUR (the exercise price may be higher in certain			
exercised	countries)	Exercise	Expiry date	Plan
22,500	22.55	all working days of	02/03/2016	ISOP 2006
2,500	24.00	Euronext Brussels		
25,000				
120,500	26.55	all working days of	16/02/2017	ISOP 2007
10,000	27.36	Euronext Brussels		
130,500				
136,500	32.57	all working days of	14/04/2018	ISOP 2008
23,500	32.71	Euronext Brussels		
160,000				
38,500	14.44	all working days of	15/02/2016	ISOP 2009
4,500	14.68	Euronext Brussels		
43,000				
228,500	22.30	all working days of	14/02/2017	ISOP 2010
		Euronext Brussels		
228,500				
404,625	38.07	all working days of	13/02/2018	ISOP 2011
60,750	39.25	Euronext Brussels		
23,500	38.54			
488,875				
431,375	35.32	all working days of	12/02/2019	ISOP 2012
52,375	37.67	Euronext Brussels		
27,375	36.00			
511,125				
551,250	36.38	all working days of	12/02/2020	ISOP 2013
38,000	37.67	Euronext Brussels		
589,250				
558,875	32.29	all working days of	10/02/2021	ISOP 2014
38,000	31.60	Euronext Brussels		
27,000	32.98			
623,875				
555,500	34.58	all working days of	09/02/2022	ISOP 2015
27,000	37.80	Euronext Brussels		
26,250	39.01			
608,750				
3,408,875				Total

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 lapse automatically.

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(EUR thousand)

201	4	2015		
Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price	
3,378,088	31.18	3,679,463	31.91	
623,875	32.27	608,750	34.91	
322,500	24.81	873,338	27.12	
		6,000		
3,679,463	31.91	3,408,875	33.67	
3,679,463	31.91	3,408,875	34	
	share options 3,378,088 623,875 322,500 3,679,463	Number of share options average exercise price 3,378,088 31.18 623,875 32.27 322,500 24.81 3,679,463 31.91	Number of share options average exercise price Number of share options 3,378,088 31.18 3,679,463 623,875 32.27 608,750 322,500 24.81 873,338 6,000 3,679,463 31.91	

The options outstanding at the end of the year have a weighted average contractual life until September 2019.

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

			(EUR thousand)
	Provisions for soil clean-up & site rehabilitation	Other environmental provisions	Total
At the end of previous year	68,347	3,795	72,142
. discontinued operations in opening balance	(955)		(955)
. acquisition through business combinations		10	10
. Increase	5,754	2,723	8,477
. Reversal	(327)	(347)	(674)
. Use (included in "Other operating expenses")	(7,989)	(3,229)	(11,218)
. Discounting (included in "Finance cost -Net")	35	0	35
. Translation differences	(1,128)		(1,128)
At the end of the financial year for continuing operations	63,738	2,951	66,690
Of which - Non Current	56,857	152	57,009
- Current	6,881	2,800	9,681
Total of discontinued operations	486	0	486

Provisions for environmental legal and constructive obligations are recognized 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 recognized.

Provisions decreased overall by EUR 5,452 thousand, with additional provisions being more than compensated by uses and reversals of existing provisions reflecting overall the steady execution of identified and committed rehabilitation programs.

The increase in provisions for soil and groundwater remediation is mainly related to new provisions taken at the closed Maxton and Platoro sites in the USA, in Arab (USA) and in Viviez (France). Most of the uses of provisions for the period are linked to the realization during the period of site remediation programs in Brazil (Guarulhos and in surroundings), in France (Viviez), in the USA (Maxton and Platoro) and in Belgium.

No major movements occurred in 2015 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 on-going, however, at a slow pace.

The movements of the other environmental provisions are mainly related to the need for and adjustment of CO, emission rights in Belgium.

Management expects the most significant cash outflows on these projects to take place within 5 years.

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F30 Provisions for other liabilities and charges

Provisions for Provisions for other liabilities reorganization & and charges restructuring Total At the end of the previous year 43,678 57.735 14,062 Discontinued operations in opening balance (2, 399)(3, 870)(6, 269)Increase 11,142 18,751 29,892 Reversal (12,500)(2,226)(14,726)Use (included in "Other operating expenses") (4, 354)(10, 619)Discounting (included in "Finance cost -Net") (2,386)(2,386)Translation differences 139 (4,656)(4,518)Transfers (3,795)201 (3, 594)Other movements 27 27 At the end of the financial year for continuing operations 12,568 32,979 45,543 Of which - Non Current 9,009 9,680 18,689 - Current 3,559 23,298 26,857 Total of discontinued operations 550 6,370 6,920

Provisions for reorganization and restructuring and for tax, warranty and litigation risks, onerous contracts and product returns are recognized 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 recognized.

Provisions decreased overall by EUR 12,192 thousand. New or increased provisions are not entirely offset by the reversals and the uses of existing provisions at continuing operations. The impact of discontinued operations (provisions removed), translation differences (lowering the provisions in Euro) and transfers (mainly to provisions for employee Benefits) make the overall balance going down

Additional provisions for reorganization and restructuring have been taken mainly in Germany and South Africa. Some reversal of prior years' booked provisions took place in Belgium and Germany.

The increases and decreases in provisions for other liabilities and charges are mainly related to litigations in Belgium and Brazil respectively.

They also include provisions for onerous contracts related to the IAS 39 effect. The net increase of the period on these IAS 39 related provisions for onerous contracts is EUR 6,584 thousand, leaving a closing balance of EUR 11,647 thousand.

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.

(EUR thousand)

F31 Capital employed

CAPITAL EMPLOYED AND ROCE				(EUR thousand)
	Note	31/12/2014	30/06/2015	31/12/2015
Intangible assets	F14, F15	266,073	255,980	251,791
Property, plant and equipment	F16	1,061,735	993,620	1,022,591
Investments accounted for under the equity method	F17	208,847	189,959	189,802
Available-for-sale financial assets	F18	50,258	49,953	29,236
Inventories	F19	1,182,946	1,107,795	1,053,669
Non current receivable (excluding assets employee benefits)	F20	17,124	15,791	14,771
Adjusted current accounts receivable		824,430	855,782	823,684
Income tax receivable		34,264	32,942	35,659
Assets included in capital employed		3,645,677	3,501,823	3,421,202
Non-current trade and other payables	F25	21,490	19,159	24,654
Adjusted current accounts payable		1,137,028	1,070,381	1,070,803
Translation reserves	F23	(38,715)	(6,541)	(37,191)
Non-current provisions	F29, F30	100,673	93,932	75,699
Current provisions	F29, F30	29,208	34,753	36,538
Income tax payable		63,958	73,829	54,889
Liabilities included in capital employed		1,313,642	1,285,512	1,225,392
Capital employed		2,332,035	2,216,310	2,195,810
IAS 39 and eliminations		3,278	29,827	19,365
Capital employed discontinued			183,422	199,325
Capital employed as published		2,335,314	2,429,559	2,414,500
Average Capital Employed in half year preceding closing date		2,265,536		2,422,030
Average Capital Employed in year preceding closing date		2,240,099		2,402,233
Recurring EBIT in year preceding closing date	F9	273,669		330,261
ROCE in year preceding closing date		12.22%		13.75%

Current account receivable and payable included in "Capital Employed" do no take into account margin calls and gains and losses booked on the mark-tomarket 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

(EUR thousand) **Carrying amount** Held for no hedge As at the end of previous year Level Fair value for-sale ASSETS Available-for-sale financial assets 50,258 50,258 Available-for-sale financial assets - Shares 50,258 Loans granted 8,088 8,088 Loans to associates and non consolidated affiliates 8,088 8,088 Trade and other receivables 844,544 9,756 2,437 832,352 Non-current Cash guarantees and deposits 9,481 9,481 Other receivables maturing in more than 1 year 7,643 7,643 Assets employee benefits 431 431 Current Trade receivables (at cost) 739,569 739,569 Trade receivables (write-down) (7,060)(7,060)Other receivables (at cost) 65,417 65,417 Other receivables (write-down) (6,097)(6,097)Interest receivable 124 124 2,437 Fair value of financial instruments held for cash-flow hedging 2,437 Fair value receivable other financial instruments 9,756 9,756 Deferred charges and accrued income 22,843 22,843 Cash and cash equivalents 89,792 89,792 Short-term investments: bank term deposits 3,857 3,857 Short-term investments: term deposits (other) 128 128 Cash-in-hand and bank current accounts 85,807 85,807 9,756 **TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)** 2,437 50,258 992,682 930,232 LIABILITIES **Financial debt** 389,385 388,085 Non-current 21,300 20,000 Bank loans Other loans 2,572 2,572 Current Short term bank loans 119,747 119,747 Bank overdrafts 9,905 9,905 Short term loan: commercial paper 228,922 228,922 Other loans 6,939 6,939 Trade and other payables 1,170,089 13,651 11,571 1,144,867 Non-current Other long term debts 3,208 3.208 Investments grants and deferred income from grants 18,282 18,282 Current Trade payables 855,877 855,877 Advances received on contracts in progress 17.128 17,128 Tax - other than income tax - payable 16,946 16,946 Payroll and related charges 115,642 115,642

(EUR thousand)

					Саггу	ing amount
As at the end of previous year	Level	Fair value		Cash Flow hedge ac- counting		Available- for-sale
Other amounts payable		19,394	3	3	19,394	
Dividends payable		8,220			8,220	
Accrued interest payable		488			488	
Fair value financial instrument held for cash flow hedging	2	11,571		11,571		
Fair value payable other financial instruments	2	13,651	13,651			
Accrued charges and deferred income		89,682			89,682	
TOTAL OF FINANCIAL INSTRUMENTS (LIABILITIES)		1,559,474	13,651	11,571	1,532,952	

					```	EUR thousand
						ing amoun
As at the end of the financial year	Loval	Fair value	Held for trading - no hedge	Cash Flow hedge ac-	Loans, receiva- bles and payables	Available
AS at the end of the infancial year	Level		accounting	counting	payables	for-sale
Assets Available-for-sale financial assets		29,236				29,236
Available-for-sale financial assets – Shares	1	29,236				29,236
Loans granted	I	<b>4,188</b>			4,188	23,230
Loans to associates and non consolidated affiliates		4,188			4,188	
Trade and other receivables		4,100 <b>844,999</b>	7,070	2,801	4,100 835,128	
Non-current		044,799	1,070	2,001	033,128	
Cash guarantees and deposits		7,682			7,682	
Other receivables maturing in more than 1 year		7,082			7,082	
Assets employee benefits		423			423	
Current		423			423	
Trade receivables (at cost)		701,815			701,815	
Trade receivables (write-down)		(8,570)			(8,570)	
Other receivables (at cost)		(8,570) 70,833			(8,570) 70,833	
Other receivables (write-down)						
Interest receivable		(5,252) (80)			(5,252) (80)	
Fair value of financial instruments held for cash-flow hedging	2			2,801	(80)	
Fair value of inflaticial instruments field for cash-now fieldging Fair value receivable other financial instruments	2	2,801	7.070	2,801		
	Z	7,070	7,070		(1 107	
Deferred charges and accrued income		61,187			61,187	
Cash and cash equivalents		74,487			74,487	
Short-term investments: bank term deposits		12,280			12,280	
Short-term investments: term deposits (other)		(2.207			(2.207	
Cash-in-hand and bank current accounts		62,207	7.070	2 004	62,207	
TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)		952,910	7,070	2,801	913,803	29,236
LIABILITIES						
Financial debt		411,570			410,170	
Non-current						
Bank loans		71,413			70,013	
Other loans		1,286			1,286	
Current						
Short term bank loans		104,932			104,932	

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# (EUR thousand)

					Саггу	ing amount
			Held for		Loans,	
			trading -	Cash Flow	receiva-	
			no hedge	hedge ac-	bles and	Available-
As at the end of the financial year	Level	Fair value	accounting	counting	payables	for-sale
Bank overdrafts		8,318			8,318	
Short term loan: commercial paper		225,485			225,485	
Other loans		136			136	
Trade and other payables		1,120,025	14,909	24,565	1,080,551	
Non-current						
Long term trade payables		0			0	
Other long term debts		9,942			9,942	
Investments grants and deferred income from grants		14,712			14,712	
Current						
Trade payables		737,505			737,505	
Advances received on contracts in progress		16,707			16,707	
Tax - other than income tax - payable		30,657			30,657	
Payroll and related charges		101,765			101,765	
Other amounts payable		28,171			28,171	
Dividends payable		8,183			8,183	
Accrued interest payable		306			306	
Fair value financial instrument held for cash flow hedging	2	24,565		24,565		
Fair value payable other financial instruments	2	14,909	14,909			
Accrued charges and deferred income		132,603			132,603	
TOTAL OF FINANCIAL INSTRUMENTS (LIABILITIES)		1,531,595	14,909	24,565	1,490,721	

Loans and debt have been issued at market rate 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 guoted 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 for the market assumptions the ones existing 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 and metal contracts is determined using quoted forward exchange and metal 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 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 EUR 0.8 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 EUR 2.7 million higher/lower if the energy prices would strengthen/weaken by 10%.

The fair value on other commodity sales financial instruments would have been EUR 9.4 million lower/higher and the fair value on other commodity purchases financial instruments would have been EUR 14.1 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 EUR 8.5 million higher if the Euro would strengthen against USD by 10% and would have been EUR 10.4 million lower if the Euro would weaken against USD by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been EUR 4.4 million higher if the Euro would strengthen against ZAR by 10% and would have been EUR 3.6 million lower if the Euro would weaken against ZAR by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been EUR 3.3 million lower if the USD would strengthen against KRW by 10% and would have been EUR 4.1 million higher if the USD would weaken against KRW by 10%.

The fair value of other forward currency contracts sold would have been EUR 41.4 million higher if the Euro would strengthen against USD by 10% and would have EUR 50.6 million lower if the Euro would weaken against USD by 10%.

The fair value of other forward currency contracts bought would have been EUR 16.5 million lower if the Euro would strengthen against USD by 10% and would have been EUR 20.1 million higher if the Euro would weaken against USD by 10%.

The fair value of net position of current assets and liabilities exposed to USD would have been EUR 18.6 million lower if the Euro would strengthen against USD by 10% and would have been EUR 22.8 million higher if the Euro would weaken against USD 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 reputated brokers and banks.

## 33.1 Financial instruments related to cash-flow hedging

				(EUR thousand)
	Notional or Contra	ictual amount	Fair va	ue
	31/12/2014	31/12/2015	31/12/2014	31/12/2015
Forward commodities sales	31,502	9,276	61	2,089
Forward commodities purchases	(51,482)	(36,618)	(3,855)	(9,599)
Forward currency contracts sales	84,138	234,689	(1,851)	(11,090)
Forward currency contracts purchases	0		0	
Forward IRS contracts			(3,489)	(3,164)
Total fair value impact subsidiaries			(9,135)	(21,764)
Recognized under trade and other receivables			2,437	2,801
Recognized under trade and other payables			(11,571)	(24,565)
Total fair value impact associates and joint ventures			(261)	0
Total			(9,395)	21,764

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 recognized in the fair value reserves recorded in equity and are derecognized 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: silver and platinum. 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 amongst other USD towards EUR, KRW, BRL and EUR towards ZAR.

The average maturity date of financial instruments related to cash-flow hedging is July 2016 for the forward commodities sold and October 2016 for the forward currency contracts.

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 2014 and 2015.

#### 33.2 Other financial instruments

			(EUK thousand)
Notional or Contra	ctual amount	Fair val	
31/12/2014	31/12/2015	31/12/2014	31/12/2015
157,300	108,512	2,855	4,567
(171,872)	(147,819)	(3,465)	(6,903)
474,004	457,039	(9,359)	(6,477)
(158,305)	(206,120)	6,119	973
		(3,852)	(7,840)
		9,799	7,070
		(13,651)	(14,909)
		(3,852)	(7,840)
	<b>31/12/2014</b> 157,300 (171,872) 474,004	157,300         108,512           (171,872)         (147,819)           474,004         457,039	31/12/2014         31/12/2015         31/12/2014           157,300         108,512         2,855           (171,872)         (147,819)         (3,465)           474,004         457,039         (9,359)           (158,305)         (206,120)         6,119           (3,852)           9,799         (13,651)

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 recognized in the income statement under Other operating income for the commodity instruments and the Net Finance cost for the currency instruments.

(EUR thousand)

(EUR thousand)

					(EUR thousand)
	Contra	ctual maturity	(undiscount	ed)	
		1 to 3 3 l	Nonths - 1		
As at the end of previous year	< 1 Month	Months	Үеаг	1 to 5 Years	Tota
FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)					
Commodity risk					
Total forward purchases (CFH)	368	28	1,187	0	1,584
Total forward sales (other)	1,537	1,480	448	0	3,465
Total forward purchases (other)	81	(1)	0	0	80
FX Risk					
Forward currency contracts sales (CFH)	79	158	616	0	853
Forward currency contracts sales (other)	59				59
Forward currency contracts purchases (other)	1,048	1,964	3,121	62	6,195
FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)					
Interest Rate Risk					
Interest rate swaps	0	0	0	(3,489)	(3,489)
Commodity risk					
Total forward sales (CFH)	0	(465)	(1,058)	0	(1,523
Total forward purchases (CFH)	0	0	(2,195)	(1,660)	(3,855
Total forward sales (other)	(403)	(201)	(6)	0	(610
Total forward purchases (other)	(1,857)	(1,573)	(91)	(24)	(3,546
FX Risk					
Forward currency contracts sales (CFH)	(330)	(346)	(2,110)	82	(2,704)
Forward currency contracts sales (other)	(3,236)	(2,734)	(3,320)	(129)	(9,418
Forward currency contracts purchases (other)	(78)	2	0	0	(76

	Contra	t			(EUR thousand)
	Contrac		ty (undiscou	nted)	
		1 to 3	3 Months		
As at the end of the financial year	< 1 Month	Months	- 1 Үеаг	1 to 5 Years	Tota
FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)					
Commodity risk					
Total forward sales (CFH)	0	534	1,555	0	2,089
Total forward purchases (CFH)					
Total forward sales (other)	3,408	2,148	105	0	5,662
Total forward purchases (other)	354	0	0	0	354
FX Risk					
Forward currency contracts sales (CFH)	10	45	394	263	712
Forward currency contracts sales (other)	4	6			10
Forward currency contracts purchases (other)	(153)	350	766	80	1,044
FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)					
Interest rate risk					
Interest rate swaps	0	0	0	(3,164)	(3,164
Commodity risk					
Total forward sales (CFH)					
Total forward purchases (CFH)	0	(1,288)	(5,866)	(2,445)	(9,599
Total forward sales (other)	(62)	(324)	(709)	0	(1,095
Total forward purchases (other)	(2,721)	(1,146)	(1,570)	(1,824)	(7,261
FX Risk					
Forward currency contracts sales (CFH)	(688)	(1,368)	(6,505)	(3,241)	(11,802
Forward currency contracts purchases (CFH)	<u>-</u>				
Forward currency contracts sales (other)	(1,490)	(864)	(2,635)	(1,498)	(6,487
Forward currency contracts purchases (other)	(67)	0	0	0	(67

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## 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.

	(	EUR thousand)
	2014	2015
ADJUSTMENTS FOR NON CASH TRANSACTIONS		
Depreciations	151,491	165,863
Adjustment IAS 39	562	16,018
(Reversal) Impairment charges	3,957	20,873
Mark to market of inventories and commitments	(5,895)	(532)
Exchange difference on long-term loans	251	(1,300)
Inventories and bad debt provisions	(1,063)	33,389
Depreciation on government grants	(669)	(756)
Share-based payments	3,314	5,400
Change in provisions	(4,440)	(4,322)
	147,508	234,635
ADJUSTMENTS FOR ITEMS TO DISCLOSE SEPARATELY OR UNDER INVESTING AND FINANCING CASH FLOWS		
Tax charge of the period	44,355	47,736
Interest (income) charges	2,781	4,818
(Gain) loss on disposal of fixed assets	36	(1,817)
Dividend income	(99)	(31)
	47,073	50,707
CHANGE IN WORKING CAPITAL REQUIREMENT ANALYSIS		
Inventories	(76,686)	129,277
Trade and other receivables	(112,883)	(1,852)
Trade and other payables	189,676	(59,136)
As in the consolidated balance sheet	107	68,289
Discontinued operations in opening balance	31,710	(144,276)
Non-cash items (*)	(9,779)	(55,344)
Items disclosed elsewhere (**)	(9,057)	21,181
Impact of business combination	38,050	
Currency translation differences	36,722	(2,960)
As in the consolidated cash flow statement	87,753	113,111

(*) 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.

The impact of the discontinued operations is due to the fact that the 2015 balance sheet has been restated to isolate the continuing operations and not the 2014 balance sheet. However the cash flow statements were restated for both 2014 and 2015.

			(EUR thousand)
	Net cash and cash equivalent	Loans (w/o bank overdrafts)	Net financial debt
At the end of previous year	79,886	378,179	298,293
Discontinued operations in opening balance	23,057	(1,331)	(24,388)
Cash flow of the period	(73,154)	25,003	98,157
Impact of final financing carved out entities	36,378		(36,378)
At the end of the financial year	66,167	401,851	335,684
Net Debt, including the discontinued	104,039	425,365	321,326

## 34.2 Net cash flow generated by operating activities

Operating cash flow after tax from continuing operations is EUR 265.1 million. Working capital requirements for continuing operations increased by EUR 113.1 million, in line with volume and turnover growth.

## 34.3 Net cash flow used in investing activities

Net cash used in investing activities for continuing operations decreased by EUR 19.9 million in 2015. Capital expenditure for continuing operations reached EUR 213 million if capitalized R&D costs are excluded as per Umicore's definition of capital expenditures (refer to Glossary). The vast majority of capital expenditures relate to Umicore's strategic growth projects. In Recycling major investments linked to the capacity expansion in Hoboken were successfully carried out during the year. Investments in Catalysis were mainly linked to the construction of the production facilities in Poland and Thailand, as well as the construction of Ordeg's new technology development centre in South Korea. Capital expenditures in Energy & Surface Technologies were primarily related to the ongoing production capacity expansions for Rechargeable Battery Materials in China and South Korea.

The acquisitions include EUR 20.9 million of intangibles coming mainly from the capitalization of costs linked to new information systems and development expenses (see note F14).

## 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 (EUR 26.8 million), the buyback of own shares netted with the use of own shares to exercize the options (EUR 9.8 million), the net capital increase in minorities (EUR 3.5 million) and the payment of dividends (EUR 114.0 million) and of interest (EUR 5.6 million).

	(EUR thousand)		
	2014	2015	
Acquisition of tangible assets	169,486	204,494	
Acquisition of intangible assets	24,138	20,856	
Acquisitions of assets	193,624	225,350	
Capitalized R&D	12,687	12,450	
Capital expenditure for continuing operations	180.937	212,900	
Acquisitions of assets for discontinued operations	21,435	27,395	
Capital expenditure, including discontinued	202,372	240,295	

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## F35 Rights and commitments

(EUR thousand)		
2014	2015	
49,937	25,093	
4,899	3,872	
91,858	85,395	
348,644	210,255	
4,479	3,791	
131,398	169,104	
374,149	366,039	
1,397,160	1,383,289	
2,759	3,075	
2,405,283	2,249,913	
	<b>2014</b> 49,937 4,899 91,858 348,644 4,479 131,398 374,149 1,397,160 2,759 <b>2,405,283</b>	

#### 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 lines concerning the commitments for commodities purchased and sold have been updated in 2013 including now the full scope of entities.

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 2015, there was a net lease-in position for EUR 475 million vs. EUR 400 million at end of 2014. This increase is mainly caused by higher volumes.

## F36 Contingencies

The Group has certain pending files that can be qualified as contingent liabilities or contingent assets, according to the definition of IFRS.

#### **36.1 French Competition Authority**

This case is now detailed under the note F42 on Discontinued Operations as it concerns Building Products.

### 36.2 ITC contingent liability

On February 20, 2015, BASF Corp. and the University of Chicago Argonne (Argonne) filed two lawsuits against Umicore. One action was filed at the United States International Trade Commission (ITC), and the other was filed in federal district court in Wilmington, Delaware. The ITC action accuses Umicore of infringing two U.S. Patents owned by Argonne relating to lithium metal oxide positive electrodes for non-aqueous lithium cells and batteries. The Delaware action has subsequently been stayed as a mandatory part of the procedure. The ITC action was instituted in March 2015 and Umicore filed its initial response to the complaint on 24 April. This response asserted that Umicore's products do not infringe, not least because Umicore's products have a different material structure than that claimed in the patents. A trial on the merits was held from October 26 to October 29, 2015 and an initial determination was issued on February 29, 2016. The initial determination confirmed that Umicore did not directly infringe or induce infringement of the patents but did, however, find that Umicore contributed to the infringement of these patents with respect to certain activities in the United States. As a next step, the case will be subject to review by the full ITC Commission, which is expected to issue a final determination in June 2016. In parallel to the ITC proceedings, Umicore is challenging the validity of the related patents at the U.S. Patent and Trademark Office (USPTO).

### 36.3 Others

In addition to the above, 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.

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## F37 Related parties

	(	EUR thousand)
	2014	2015
TRANSACTIONS WITH JOINT VENTURES AND ASSOCIATES		
Operating income	147,523	157,468
Operating expenses	(99,764)	(124,027)
Financial income	275	323
Financial expenses		(5)
Dividends received	(16,502)	(16,862)
	2014	2015
OUTSTANDING BALANCES WITH JOINT VENTURES AND ASSOCIATES		
Current trade and other receivables	9,954	33,032
Current trade and other payables	44,878	44,263
Loan asset short term		2,450

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.

		(EUR)
	2014	2015
BOARD OF DIRECTORS		
Salaries and other compensation	614,570	607,234
Fixed portion	213,334	199,999
Variable portion (based on attended meetings)	226,000	208,500
Value of the share grant	167,546	192,668
Benefit in kind company car chairman	3,378	3,175
Umicore contribution to the Swiss social security	4,312	2,892

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.

		(EUR)
	2014	2015
EXECUTIVE COMMITTEE		
Salaries and other benefits	7,641,180	7,792,233
Short-term employee benefits	4,410,344	3,784,972
Post-employment benefits	1,104,328	1,220,993
Other long-term benefits	585,008	724,500
Share-based payments	1,541,500	2,061,768

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 2015 for services rendered in 2014. The remuneration Report shows the value of the shares granted in 2016 for services rendered in the reporting year i.e. 2015.

The figures related to the undeferred part of the variable cash remuneration linked to the individual performance for the reference year 2015, 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 2015 are included in the other long-term benefits. The amounts to be paid in 2017 and 2018 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 end of the reporting period

Following the Board of Directors meeting of 4 February 2016, Umicore announced that a gross dividend of EUR 1.20 per share would be proposed to the Annual Shareholders Meeting, corresponding to a total dividend payment of EUR 129,902 thousand of which EUR 0.50 per share were already paid out as interim dividend in September 2015.

## F39 Earnings per share

EARNINGS PER SHARE		(EUR)
	2014	2015
Excluding discontinued operations		
EPS - basic	1.58	1.41
EPS - diluted	1.57	1.41
Including discontinued operations		
EPS - basic	1.58	1.56
EPS - diluted	1.57	1.55
Recurring EPS	1.79	2.27

The following earnings figures have been used as the numerator in the calculation of basic and diluted earnings per share:

NUMERATOR ELEMENTS			(EUR thousand)
	Note	2014	2015
Net consolidated profit, Group share	F9		
Without discontinued operations		156,287	153,205
With discontinued operations		170,603	169,225
Recurring net consolidated profit, Group share	F9	193,105	245,999

The following numbers of shares have been used as the denominator in the calculation of basic and diluted earnings per share:

#### DENOMINATOR ELEMENTS

	2014	2015
Total shares issued as at 31 December	112,000,000	112,000,000
of which treasury shares	3,914,272	3,927,534
of which shares outstanding	108,085,728	108,072,466
Weighted average number of outstanding shares	108,062,085	108,445,128
Potential dilution due to stock option plans	389,762	482,117
Adjusted weighted average number of outstanding shares	108,451,847	108,927,245

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.

During 2015, no new shares were created as a result of the exercise of stock options with linked subscriptions rights. During the year Umicore used 873,338 of its treasury shares in the context of the exercise of stock options and 33,400 for shares granted. In the course of 2015, Umicore bought back 920,000 of its own shares. On 31 December 2015, Umicore owned 3,927,534 of its own shares representing 3.51% of the total number of shares issued as at that date.

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### 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 2015 and have not 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 and derecognition of financial assets and financial liabilities.
- IFRS 15 'Revenue from contracts with customers'. The IASB and FASB have jointly issued a converged standard on the recognition of revenue from contracts with customers. The standard will improve the financial reporting of revenue and 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, subject to EU endorsement.
- Amendment to IFRS 9 'financial instruments' on general hedge accounting, effective for annual periods beginning on or after 1 January 2018. The amendment incorporates the new general hedge accounting model which will allow reporters to reflect risk management activities in the financial statements more closely as it provides more opportunities to apply hedge accounting. These amendments also impact IAS 39 and introduce new disclosure requirements for hedge accounting, thereby impacting IFRS 7, irrespective of the fact whether hedge accounting requirements under IFRS 9 or IAS 39 are used.

For all new interpretations and standards not yet mandatory as from 1 January 2015, management is currently assessing whether these will have 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 EUR 2.8 million, including an amount of EUR 1.9 million for the statutory audit missions (EUR 0.5 million for the audit of the mother company) and EUR 0.9 million for non-statutory audit services including audit-related and other attestation services (EUR 0.2 million) and other non-audit related services (EUR 0.7 million).

## F42 Discontinued operations

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. These units have improved profitability and are in a strong position to develop further in an environment that is specifically aligned with their respective products, services and applications.

Management has analysed whether criteria were met to present both activities as discontinued operations. These criteria have been realised in June 2015. Based on this analysis it was decided to present both business units as discontinued operations as from 30 June 2015, which has also been communicated in June 2015. This has been combined with the announcement of the new simplified reporting structure resulting in three segments which is aligned with the strategic priorities of the Group. Consequently Zinc Chemicals and Building products are not any longer part of any segment and presented separately as discontinued in the segment reporting.

As a result, discontinued operations are shown in one line item on the balance sheet and detailed below without any restatement 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 are 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.

		(EUR thousand)
	31/12/2014	31/12/2015
ASSETS AND LIABILITIES OF DISCONTINUED OPERATIONS		
Non-current assets		163,575
Property, plant and equipment		116,502
Investments accounted for using the equity method		22,852
Other non-current assets		24,221
Current assets		256,024
Inventories		124,893
Trade and other receivables		91,546
Cash and Cash equivalents		37,872
Other current assets		1,713
TOTAL ASSETS		419,599
Non-current liabilities		44,105
Provisions for employee benefits		36,624
Financial debt		803
Other non-current liabilities		6,679
Current liabilities		185,088
Financial debt		22,712
Trade and other payables		157,648
Other current liabilities		4,727
TOTAL EQUITY & LIABILITIES		229,193

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Analysis of the result of discontinued operations and cash flows including a restatement of prior periods in accordance with IFRS 5 is shown below:

		(EUR thousand)
	2014	2015
CONDENSED INCOME STATEMENT OF DISCONTINUED OPERATIONS		
Operating income	713.046	748.440
Operating expenses	(694.848)	(729.167)
Result from operating activities	18.200	19.272
Finance cost - Net	(3.131)	(1.870)
Share in result of companies using the equity method	1.519	348
Profit (loss) before income tax	16.588	17.750
Income taxes	(2.151)	(1.326)
Profit (loss) of the period	14.437	16.424
Basic earnings per share from discontinued operations	0,13	0,15
Diluted earnings per share from discontinued operations	0,13	0,15

		(EUR thousand)
	2014	2015
CONDENSED CASHFLOW STATEMENT OF DISCONTINUED OPERATIONS	·///	
Net operating cashflow	4,895	108,768
Net cash flow generated by (used in) investing activities	(20,860)	(26,030)
Net cash flow generated by (used in ) financing activities	1,538	15,164
Effect of exchange rate fluctuations on cash held	(1,169)	(595)
Net cash flow from discontinued operations	(15,596)	97,307
Net cash and cash equivalents at the beginning of the period for discontinued operations	(7,474)	(23,057)
Impact of final financing carved out entities	13	(36,378)
Net cash and cash equivalents at the end of the period for discontinued operations	(23,057)	37,872

Referring to the accounting policies, intercompany transactions within the income statement between the discontinued and continued operations are not eliminated.

The commercial transactions between continued and discontinued are quite limited (EUR 4.1 million in the operating expenses of the discontinued operations and EUR 0.3 million in the operating income of the discontinued operations). There are however still materials loans granted to discontinued operations (EUR 31.6 million). In the balance sheet, those loans have been eliminated as per the accounting policy.

The total items of the Other Comprehensive Income that may be subsequently reclassified to income statement are mainly related to currency translation differences (EUR 5.4 million) and negative cash flow hedge reserves (EUR 1.1 million).

The discontinued operations have some material external commercial commitments to deliver (EUR 68.0 million) or receive (EUR 4.8 million) metals to customers or from suppliers at fixed prices. The external guarantees constituted by third parties on behalf of the discontinued operations amount to EUR 7.6 million.

In the course of the first half of 2015 the French Competition Authority issued a report on the observations submitted by Umicore in response to the statements of objections relating to the business practices of the company's Building Products business unit with respect to its distributors. Umicore strongly disputes the allegations contained in the statement of objections. With reference to existing case law of the European Commission and the Bundeskartellamt, Umicore disputes among others the narrow market definition of the French Authority and hence the assertion that Umicore would have a dominant position in the relevant market.

## Parent company separate summarized financial statements

The annual accounts of Umicore are given below in summarized 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 B-1000 Brussels (Belgium)

The statutory auditor did not express any reservations in respect of the annual accounts of Umicore.

The legal reserve of EUR 50,000 thousand which is included in the retained earnings is not available for distribution.

				(EUR thousand)
		31/12/2013	31/12/2014	31/12/2015
<b>SUMMARI</b>	ZED BALANCE SHEET AT 31 DECEMBER			
1. ASSETS				
Fixed asse	ets	3,793,411	3,813,172	3,835,808
	Formation expenses			
	Intangible assets	84,042	88,202	88,287
.	Tangible assets	347,946	347,625	353,974
IV.	Financial assets	3,361,423	3,377,345	3,393,54
Current as	ssets	923,789	811,395	684,60
V.	Amounts receivable after more than one year	773	373	373
VI.	Stocks and contracts in progress	394,039	411,793	343,86
VII.	Amounts receivable within one year	220,493	258,740	163,725
VIII.	Investments	299,215	131,290	162,043
IX.	Cash at bank and in hand	1,131	712	95
Χ.	Deferred charges and accrued income	8,134	8,487	13,64
Total assets		4,717,197	4,624,567	4,520,409
2. LIABILII	TIES AND SHAREHOLDERS' EQUITY			
	TIES AND SHAREHOLDERS' EQUITY nd reserves	1,427,123	1,211,343	1,214,762
	nd reserves Capital		<b>1,211,343</b> 500,000	. In set as to ploy to play to
Capital an	<b>nd reserves</b> Capital Share premium account	1,427,123		<b>1,214,762</b> 500,000 6,610
Capital an	nd reserves Capital	<b>1,427,123</b> 500,000	500,000	500,000 6,610
Capital an I. II.	<b>nd reserves</b> Capital Share premium account Revaluation surplus Reserves	<b>1,427,123</b> 500,000 6,610	500,000 6,610	500,000 6,610 9
<b>Capital an</b>  .   .    .	<b>id reserves</b> Capital Share premium account Revaluation surplus	<b>1,427,123</b> 500,000 6,610 91	500,000 6,610 91	500,000 6,610 9 330,06
<b>Capital an</b> I. II. III. IV.	<b>nd reserves</b> Capital Share premium account Revaluation surplus Reserves	<b>1,427,123</b> 500,000 6,610 91 497,318	500,000 6,610 91 321,585	500,000 6,610 9 330,062 237,221
<b>Capital an</b> I. II. III. IV. V.	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866	500,000 6,610 91 321,585 244,371	500,000 6,610 9 330,06 237,22 135,450
Capital an I. II. III. IV. V. Vbis. VI.	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward Result for the period	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866 87,990	500,000 6,610 91 321,585 244,371 131,238	500,000 6,610 9 330,06 237,22 135,450
Capital an I. II. III. IV. V. Vbis. VI.	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward Result for the period Investments grants s and deferred taxation	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866 87,990	500,000 6,610 91 321,585 244,371 131,238	500,000 6,610 9 330,06 237,22 135,450 5,31
Capital an I. II. III. IV. V. Vbis. VI. Provisions VII.A.	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward Result for the period Investments grants	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866 87,990 7,248	500,000 6,610 91 321,585 244,371 131,238 7,448	500,000 6,610 9 330,06 237,22 135,450 5,31 109,68
Capital an I. II. III. IV. V. Vbis. VI. Provisions VII.A.	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward Result for the period Investments grants s and deferred taxation	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866 87,990 7,248 105,843	500,000 6,610 91 321,585 244,371 131,238 7,448 115,233	500,000 6,610 9 330,06 237,22 135,450 5,31 109,68 <b>3,195,96</b>
Capital an I. II. IV. V. Vbis. VI. Provisions VII.A. Creditors	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward Result for the period Investments grants s and deferred taxation Provisions for liabilities and charges	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866 87,990 7,248 105,843 <b>3,184,231</b>	500,000 6,610 91 321,585 244,371 131,238 7,448 115,233 <b>3,297,991</b>	500,000 6,610 9 330,067 237,225 135,450 5,312 109,685 <b>3,195,967</b> 1,572,000
Capital an I. II. IV. V. Vbis. VI. Provisions VII.A. Creditors VIII.	nd reserves Capital Share premium account Revaluation surplus Reserves Result carried forward Result for the period Investments grants s and deferred taxation Provisions for liabilities and charges Amounts payable after more than one year	<b>1,427,123</b> 500,000 6,610 91 497,318 327,866 87,990 7,248 105,843 <b>3,184,231</b> 2,082,000	500,000 6,610 91 321,585 244,371 131,238 7,448 115,233 <b>3,297,991</b> 1,582,000	500,000

				(EUR thousand)
		31/12/2013	31/12/2014	31/12/2015
OME ST	ATEMENT			
Ι.	Operating income	3,157,820	2,937,535	2,960,770
Π.	Operating charges	(3,047,883)	(2,869,762)	(2,888,281)
.	Operating result	109,937	67,773	72,489
IV.	Financial income	103,076	112,789	179,178
V.	Financial charges	(94,259)	(83,183)	(75,985)
VI.	Result on ordinary activities before taxes	118,754	97,379	175,682
VII.	Extraordinary income	911	44,176	3,439
VIII.	Extraordinary charges	(27,351)	(10,973)	(30,585)
IX.	Result for the period before taxes	92,314	130,582	148,536
Χ.	Income taxes	4,324	656	(13,080)
XI.	Result for the period	87,990	131,238	135,456
XII.	Transfer from/to untaxed reserve			
XIII.	Result for the period available	87,990	131,238	135,456

				(EUR thousand)
		2013	2014	2015
API	PROPRIATION ACCOUNT			
Α.	Profit (loss) to be appropriated	603,778	547,094	511,065
	1. Profit (loss) for the financial year	87,990	131,238	135,456
	2. Profit (loss) carried forward	515,788	415,856	375,609
С.	Appropriation to equity	(77,905)	(62,997)	(8,482)
	2. To the legal reserve	0	0	
	3. To the reserve for own shares	(77,905)	(62,997)	(8,482)
	4. To the capital	0	0	
D.	Profit (loss) to be carried forward ⁽¹⁾	415,856	375,609	372,681
	2. Profit (loss) to be carried forward	415,856	375,609	372,681
F.	Profit to be distributed ⁽¹⁾	(110,017)	(108,488)	(129,902)
	1. Dividends			
	- ordinary shares	(110,017)	(108,488)	(129,902)

(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 2016; the gross dividend of EUR 1.20 will not change.

			(EUR thousand)	Number of shares
STA	TEMENT OF CAPITAL			
Α.	Share capital			
	1. Issued capital			
	At the end of the preceding financial year		500,000	112,000,000
	At the end of the financial year		500,000	112,000,000
	2. Structure of the capital			
	2.1. Categories of shares			
	Ordinary shares		500,000	112,000,000
	2.2. Registered shares or bearer shares			
	Registered			22,588,38
	Bearer			89,411,619
E.	Authorized unissued capital		50,000	
		% capital	Number of shares	Notification date
G.	Shareholder base (1)			
	Norges Bank	3.06	3,431,306	10/09/2015
	Capfi Delen Asset Management SA	3.08	3,453,000	22/09/2015
	Groupe Bruxelles Lambert, family Trust Desmarais, Albert Frère and LTI	15.00	16,802,836	24/09/2015

Groupe Bruxelles Lambert, family Trust Desmarais, Albert Frere and LIT Two S.A.	15.00	16,802,836	24/09/2015
 BlackRock Inc.	5.03	5,638,752	06/10/2015
 Others	70.31	78,746,572	31/12/2015
Own shares held by Umicore	3.51	3,927,534	31/12/2015
	100.00	112,000,000	
 of which free float	85.00	95,200,000	

(1) At 31 December 2015, 3,408,875 options on Umicore shares are still to be exercized. This amount includes 3,408,875 acquisition rights of existing shares held by Umicore.

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## Management responsibility statement

We hereby certify that, to the best of our knowledge, the Consolidated Financial Statements as of 31 December 2015, 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.

22 March 2016,

Marc Grynberg Chief Executive Officer

# Environmental statements

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## Environmental key figures

	unit	notes	2011	2012	2013	2014	2015
Metal emission to water (load)	kg	E2	5,782	5,701	5,560	5,639	4,459
Metal emission to water (impact units)		E2	306,627	245,935	313,883	543,332	328,013
COD (chemical oxygen demand)	kg	E2	252,681	278,131	297,490	130,759	148,217
Metal emission to air (load)	kg	E2	13,868	16,615	12,522	13,309	14,544
Metal emission to air (impact units)		E2	130,440	135,670	130,169	128,465	135,660
SO _x emissions	tonne	E2	511	487	686	1,189	1,197
NO _x emissions	tonne	E2	412	399	386	425	452
CO,e emissions (scope1+2)	tonne	E3	695,733	701,898	690,767	664,568	714,225
Energy consumption	terajoules	E4	7,807	7,315	7,557	7,304	7,816
Water consumption	thousand m ³	E5	4,567	4,310	4,343	4,645	4,904
Product SD analysis	N°	E6	3	7	6	7 ///	0
Total waste produced	tonne	E7	71,426	69,702	68,575	76,810	72,664
Hazardous waste	tonne	E7	43,588	47,789	45,668	54,824	51,524
of which recycled	0/0	E7	9.8	7.5	16.9	7.5	7.8
Non hazardous waste	tonne	E7	27,837	21,914	22,906	21,986	21,140
of which recycled	0/0	E7	64.9	54.7	60.2	60.4	56.3
Measurements exceeding limit	N°	E9	798	926	775	792	673
Compliance excess rate	0/0	E9	1.4	1.1	0.8	0.9	0.8
Environmental complaints	N°		-	24	25	31	25
Sites ISO 14001 certified	0/0	E9	92	93	97	97	92
Sites having a potential environmental impact on an area of high biodiversity value	N°	E10	11	15	16	16	15

## Notes to the environmental key figures

## E1 Scope of environmental statements

The environmental key figures include data from consolidated manufacturing sites where Umicore has operational control. Compared to 2014, data of two sites is no longer reported (Maxton, US, Precious Metals Recycling; Sancoale, India, Zinc Chemicals). Four sites were added to the reporting scope: Cheonan (South Korea, Rechargeable Battery Materials; this is in addition to the already existing site in Cheonan), Shirwal (India, Automotive Catalysts), Tokoname (Japan, Automotive Catalysts) and Wickliffe (US, Cobalt & Specialty Materials). This brings the total number of reporting sites to 67 compared to 65 in 2014 The energy consumption data also includes the two main office buildings in Brussels (Belgium) and Bagnolet (France).

Within the scope of Umicore's reporting framework, the majority of the sites report their environmental data at the end of the 3rd quarter together with a forecast for the 4th quarter. In January, the forecasted values are checked by the site for significant deviations and, if needed, corrected. The five sites with the largest environmental impact for 2015: Hanau (Germany; Catalysis, Recycling), Olen (Belgium; Energy & Surface Technologies, Group R&D), Hoboken (Belgium; Recycling, Group P&T), Changsha (China; Discontinued Operations) and Cheonan, (South Korea; Energy & Surface Technologies) report their full year figures. A sensitivity analysis undertaken for the 2015 data on metals emissions to air and water and energy consumption indicate that the potential deviation of the Group environmental performance would be less than 4% 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 2014 annual report has been restated in the 2015 report.

More details on Umicore's management approach are available on: http://annualreport.umicore.com/management-review/group-review/management-approach/environment/Approach/

## E2 Emissions to water and air

It is Umicore's objective to decrease the impact of metal emissions to air and water by 20% at Group level compared to the 2009 levels.

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 the site makes use of an external waste water treatment plant, the efficiency of that treatment is taken into account 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.

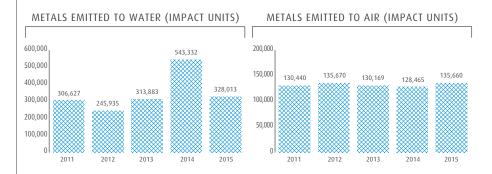
For each of the metals emitted to water and air, an impact factor is applied to account for the different toxicity and ecotoxicity levels of the various metals when they are emitted to the environment. The higher the impact factor, the higher the toxicity is to the receiving water body (for water emissions) 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  $\mu$ g/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/m³. Subsequently, an impact factor for all relevant metals was calculated based upon these references. For additional information on this topic, refer also to the case on page 28-29.

The metal impact to air and to water is expressed as 'impact units/year'. Metal emission data are not normalized for activity level.  $SO_x$  and  $NO_x$  emissions are expressed in tonnes/year.

#### Group data

	unit	2011	2012	2013	2014	2015
Metal emission to water (load)	kg	5,781	5,701	5,560	5,639	4,459
Metal emission to air (load)	kg	13,868	16,615	12,522	13,309	14,544



#### Metal emissions to water

The total metals emissions to water for the Group decreased from 5,639 kg in 2014 to 4,459 kg in 2015, a decrease of 21%. At the same time, the total metal impact also decreased strongly from 543,332 impact units in 2014 to 328,013 impact units in 2015, a decrease of 40%. This decrease in total metals emissions and in total metal impact can be attributed to further reductions in metal emissions at the Olen site (Belgium, Energy & Surface Technologies and Group R&D) and to the fact that total metal emissions in 2014 were heavily influenced by an unforeseen, one-off discharge incident of metals with a high impact factor at the Hoboken site (Belgium, Recycling). The cause of the 2014 incident in Hoboken was investigated in detail and mitigation measures were put in place immediately at the site in order to render such events impossible in the future. Monitoring of the waste water treatment plant's performance and its water balance have been carried out and will continue in the future to ensure the long-term efficacy of the implemented improvements. The greatly reduced metal emissions from the Hoboken site are testament to the undertaken improvements.

Compared to the reference year 2009, we see a reduction of the total metal impact to water by 26%, well beyond the Vision 2015 objective of 20% reduction for this Key Performance Indicator.

Umicore

#### Metal emissions to air

The total load of metal emissions to air for the Group rose from 13,309 kg in 2014 to 14,544 kg in 2015, an increase of 9%. The corresponding impact increased from 128,465 in 2014 to 135,660 impact units in 2015, an increase of 6%. The increases are mainly due to a different mix of input materials at Olen (Belgium, Energy & Surface Technologies and Group R&D) and the capacity increase at Hoboken (Belgium, Recycling). Compared to the reference year 2009 the impact of metal to air emissions is down by 37% which remains well below the 20% reduction target.

#### 2015 business group data - other emissions

	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Umicore Group
COD (chemical oxygen demand)	kg	8,965	93,530	32,879	12,843	148,217
SO _x emissions	tonne	2	40	1,059	96	1,197
NO _x emissions	tonne	105	88	165	94	452

The total 'chemical oxygen demand' (COD) emissions in 2015 were 148,217 kg, an increase of 13% compared to 130,759 kg in 2014. Total SO_x emissions were 1,197 tonnes compared to 1,189 tonnes in 2014. NO_x emissions were 452 tonnes in 2015 compared to 425 tonnes in 2014.

#### E3 Greenhouse gases

We have chosen to pursue specific actions to reduce our carbon footprint and to further increase our energy efficiency. In order to frame this approach we introduced an energy efficiency and carbon footprint policy in 2011.

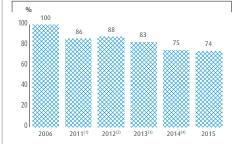
The main pillar of this policy is our group objective to achieve by 2015 a 20% reduction in our  $CO_2$  equivalent emissions compared to the reference year 2006 and using the same scope of activities as 2006 (see detailed explanation below).

Umicore also reports its absolute CO₂e emissions (ie as per the scope outlined in E1).

#### Group data – in the context of CO, e emissions objective

		baseline 2006 in					
	unit	relation to 2015	2011	2012	2013	2014	2015
CO ₂ e emissions (scope1+2, objective)	tonne	859,563	635,136	655,246	643,800	616,685	639,843

#### CO, E REDUCTION PERFORMANCE



Definition of the CO₂e emissions in the context of the CO₂ reduction objective:

The CO₂ equivalent (CO₂e) emissions are defined as the scope 1 emissions of CO₂e including the major process emissions (but limited to CO₂, CH₄ and N₂O) and scope 2 emissions of CO₂. A limited number of adjustments that are allowed to be reported as optional information under the Greenhouse Gas Protocol have been taken into account (eg: the exclusion of steam sold to third parties). This metric is abbreviated as: CO₂e (scope1+2, objective).

In order to calculate the emission reduction in the context of our Vision 2015 objective, a 2006 baseline has been established for each site by multiplying the actual activity level of the reporting year (i.e. 2015) by the 2006 CO₂e emission intensity (see example). The group baseline 2006 is then calculated by adding all site-level baselines. Examples of activity parameters at sites are: tonnes produced per year, machine hours per year, tonnes of input material in recycling process per year.

(1) Baseline 2006 in relation to 2011 was 740,886, leading to a reduction of 14% in 2011 in comparison to 2006.
(2) Baseline 2006 in relation to 2012 was 745,002, leading to a reduction of 12% in 2012 in comparison to 2006.
(3) Baseline 2006 in relation to 2013 was 778,718, leading to a reduction of 17% in 2013 in comparison to 2006
(4) Baseline 2006 in relation to 2014 was 816,918, leading to a reduction of 25% in 2014 in comparison to 2006

Umicore

Example:

In 2006 site A produced 1,000 tonnes of metal X and emitted 100 tonnes of  $CO_2e$  = intensity of 0.1 tonnes  $CO_2e$  / tonne of metal X. In 2015 site A produced 1,100 tonnes of metal X and emitted 100 tonnes of  $CO_2e$  = intensity of 0.09 tonnes  $CO_2e$  / tonne of metal X.

The 2006 baseline reported in 2015 is: activity level of 2015 (1,100 tonnes) x 2006 intensity of 0.1 tonne CO,e / tonne = 110 tonnes CO,e.

Therefore the measured 100 tonnes emitted in 2015 represents a reduction of 9% compared to what it would have been under 2006 operating conditions.

The baseline 2006 is re-calculated yearly. It is defined as the  $CO_2e$  emissions that would have been expected with the activity volumes of the reporting year (i.e. 2015) but with the  $CO_2e$  intensity of the reference year 2006. The performance for each year is expressed as a percentage in comparison to the calculated 2006 group baseline applicable to each year.

The calculation of this objective covers fully consolidated operations and activities that are part of the Group on 31 December of each reporting year (between 2011 and 2015) and that were also part of the Group on 31 December 2010. Performance is reported at Group level.

#### **CO**₂e emissions objective

 $CO_2e$  emissions in 2015 using the objective scope were 639,843 tonnes.  $CO_2e$  emissions in 2006 using the objective scope were 641,727 tonnes. For the purpose of assessing progress on our objective, this  $CO_2e$  emission level normalized for 2015 activity was 859,563 tonnes. By the end of 2015 we had therefore achieved a 26% reduction compared to our 2006 benchmark year. This means that for equivalent production levels we emitted 26% less in carbon equivalent. This compares to a reduction of 25% that we had achieved by the end of 2014.

The achievement of the target has been driven by a combination of specific internal projects and external factors. Energy efficiency projects, changes in our own fuel mix, and projects aiming at a better use of our production capacity all contributed to the reduction in carbon emissions. However, the raw materials mix played a significant role in determining  $CO_2$  emissions with the recycling processes for some residue streams requiring less energy and emitting lower levels of  $CO_2$  equivalent than for other residue streams. The level of scope 2 emissions also contributed to the reduction as a result of a less carbon-intensive energy mix on average in the countries where Umicore operates, particularly in Europe.

For those sites that were part of Umicore at the end of 2010, and excluding the activity adjustment for measuring progress against the objective, the absolute  $CO_2e$  emissions at the end of 2015 were at the same level as the emissions in 2006 despite the increase in production (639,843 tonnes  $CO_2e$  in 2015 compared to 641,727 tonnes  $CO_2e$  in 2006).

In 2012 we concluded our assessment programme at the 25 sites with the highest contribution to our  $CO_2$  emissions and representing more than 90% of the  $CO_2$  e emissions, to identify further energy efficiency improvements and  $CO_2$  reduction opportunities. In this process, over 100 energy efficiency projects were identified that had the potential to both reduce energy intensity and reduce costs. Additional assessments have been completed and projects launched at sites with a smaller emissions footprint. Several of these projects have contributed in a modest way to the overall Group  $CO_2$  reduction target, while bringing efficiency gains and cost savings at site and business unit level.

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## Absolute CO₂e emissions

#### Group data

	unit	2011	2012	2013	2014	2015
Absolute CO ₂ e emissions (scope1+2)	tonne	695,733	701,898	690,767	664,568	714,225

#### 2015 business group data

			Energy & Surface	Discontinued	Umicore	
	unit	Catalysis	Technologies	Recycling	operations	Group
Absolute CO ₂ e emissions (scope1+2)	tonne	94,588	209,475	281,835	127,908	714,225

Definition of Absolute CO₃e emissions (scope1+2) in the context of GHG reporting scope 1+2:

The absolute  $CO_2e$  emission volumes are communicated at Group and at business group level. The  $CO_2e$  emissions are calculated using the Greenhouse Gas Protocol definition and reporting methodology (WBCSD and WRI, revised edition 2004) for scope 1 and 2. Scope 2 for Umicore includes not only purchased electricity but also steam and compressed air purchased from third parties (eg. from industrial parks).  $CO_2e$  includes the greenhouse gases  $CO_2$ ,  $N_2O$  and  $CH_4$ for scope 1 and major process emissions. Other greenhouse gases are not relevant in Umicore's operations. The scope 2 emissions take only  $CO_3$  into account.

The WBCSD Chemical Sector Working Group on GHG Measurement and Reporting in which Umicore actively contributed, established additional guidance to cope with observed anomalies in GHG reporting. As an active member of this working group, Umicore implemented these guidelines in the 2012 reporting. The publication of the sector guidelines can be found on their website

(http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=15375&NoSearchContextKey=true).

By way of context, in 2011 Umicore adopted a strict implementation of the GHG protocol's revised version of 2004. Process emissions have been reported from 2011 and the average grid  $CO_2$  factor for electricity is used as the standard emission factor in cases where up to 2010 "green electricity" had been reported with a  $CO_2$  emission factor of 0 tonne  $CO_2/MWh$ .

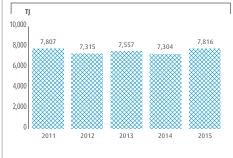
Other minor corrections were implemented from 2011 with the aim to establish a clear and stable  $CO_2e$  reporting. We have invested in resources to provide clear guidelines to the sites for a common interpretation and implementation of the reporting rules. These changes to the reporting have been imposed with the aim to guarantee a long standing accurate and reproducible  $CO_2e$  reporting as a basis for the quantitative  $CO_2e$  reduction objective. The drawback of this decision is a discontinuity in the reported figures between 2011 and the previous years in the absolute values of  $CO_3e$  (scope1+2).

An additional modification of the greenhouse gas emission reporting guidelines to take the Chemical Sector Guideline of the WBCSD into account affected the absolute  $CO_{2}$  emission reporting in 2012.

## E4 Energy

#### Group data





The WBCSD Chemical Sector Working Group on GHG Measurement and Reporting, in which Umicore actively contributed, established additional guidance to cope with observed anomalies in GHG reporting. As an active member of this working group, Umicore implemented these guidelines in the 2012 reporting. Publication of the sector guidelines can be found on the WBCSD website.

By following this guideline a discontinuity exists between the 2011 and 2012 figures of energy consumption which makes the comparison of the energy consumption less valuable. The effect is about 300 terajoules occurring in the business group Energy & Surface Technologies.

Energy efficiency projects have been implemented in the most important sites in line with the sustainable development objective of the period 2006-2010. On top of these sustainable projects, new energy efficiency projects have been identified during the assessments in 2011 and 2012. Minor projects with limited investment needs but with limited effect could immediately be implemented. A few important projects have already been implemented while more and more minor projects are coming on stream.

## 2015 business group data

	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Umicore Group
Energy consumption	terajoules	932	2,518	2,680	1,677	7,816

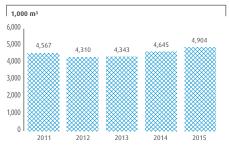
The most important energy efficiency projects have been carried out in the Hoboken and Olen sites under the Flemish Energy Efficiency Benchmarking Covenant to which these sites signed up at the end of 2003. The type of raw materials processed by the Recycling business group also played a role; higher volumes of materials – particularly primary raw materials – are now received that require less energy to process.

Indirect energy consumption by primary energy source (purchased electricity, steam and compressed air) for production sites and office buildings was 2,866 terajoules. Direct energy consumption by primary energy source (fuel, gas oil, natural gas, LPG, coal and cokes) was 4,949 terajoules.

## E5 Water consumption

#### Group data





Water consumption is defined as the total volume of water expressed in thousand m³/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 consumption for the Group increased slightly, from 4,645 thousand m³ in 2014 to 4,904 thousand m³ in 2015. This was mainly due to an activity increase at the site in Olen (Belgium, Energy & Surface Technologies and Group R&D).

#### 2015 business group data

	unit	Catalysis	Energy & Sur Technolo	face gies	Recycling	Discontinued operations	Umicore Group
Water consumption	thousand m ³	559		2,041	1,706	598	4,904
E6 Product and materia	ls						
Group data							
		unit	2011	2012	2013	2014	2015
		No	2	7	(	7	

Umicore

Over the last five years, Group R&D and Corporate EHS have been developing a methodology specific to Umicore for assessing the sustainability of our products and services. This methodology is called Assessment of Product (and services) Sustainability (APS). The methodology uses a tool consisting of a set of preformatted questions and answers with scoring and weighting factors and organized around eight themes. During 2011 a dedicated team of R&D, EHS and business unit experts ran three pilot assessments to establish the workability of APS.

Our aim was to test six products or services each year between 2012 and 2015 with each business unit submitting two cases to the study.

The 23 cases assessed in the period 2011-2014 comprise products and services deployed in niche markets, 'flagship' products and services as well as a product under development. By the end of 2014 the number of products and services screened using the tool amounted to the equivalent of 18% of Umicore's 2014 revenues. In 2015 we made use of the understanding and knowledge about sustainability and life cycles to provide input in the development of the Horizon 2020 sustainability objectives.

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 2015, as part of regular maintenance, about 20 REACH dossiers have been updated with new information on composition, uses or Chemical Safety Report. Four of them were updated in line with a request of ECHA, including additional study results. Also 6 new registrations were submitted.

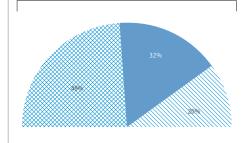
While the regulatory landscape may shift in the future, only a few of our substances feature today on the Candidate list for potential REACH authorization. In total, the products sold that contain these substances account for less than 0.5% of Umicore's revenues. The placing of a substance on the REACH "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 finalised the implementation of a new application for Safety Data Sheets. The new data base contains 3,900 products and has Safety Data Sheets available for 130 countries in 41 languages.

#### **Resource efficiency**

Primary materials
Secondary materials
End-of-life materials

#### INPUT MATERIALS UMICORE



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 2nd, 3rd...life of the substance.

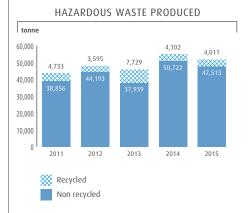
Incoming materials: are regarded as primary by default if their origin is unknown. The collected data are expressed in terms of total tonnage of incoming material.

In 2015, 48% of Umicore's incoming materials were of primary origin. 52% of the materials were from recycling or secondary origin. These levels are comparable to 2014.

Umicore

## E7 Waste

#### Group data



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 on the basis of the local regulation for the region where the reporting entity is located.

In 2015, a total of 72,664 tonnes of waste were generated compared to 76,810 tonnes in 2014, a decrease of 5%.

The total volume of hazardous waste decreased from 54,824 tonnes in 2014 to 51,524 tonnes in 2015, a decrease of 6%. The recycling rate of hazardous waste of 8% has remained at the same level as in 2014.

The total volume of non-hazardous waste has decreased slightly from 21,986 tonnes in 2014 to 21,140 tonnes in 2015. A total of 56% of non-hazardous waste was recycled in 2015 compared to 60% in 2014.

#### 2015 business group data

			Discontinued	Umicore		
	unit	Catalysis	Technologies	Recycling	operations	Group
Total waste produced	tonne	3,995	27,189	33,110	8,370	72,664
Hazardous waste	tonne	2,252	18,094	26,940	4,237	51,524
of which recycled	0/0	11.12	1.34	4.30	55.67	7.78
Non hazardous waste	tonne	1,743	9,095	6,170	4,132	21,140
of which recycled	0/0	48.34	24.19	93.36	74.90	56.28

## **E8 Historical pollution**

Actively participating in the management and remediation of risks that are the result of historical operations is an integral part of the Umicore Way. Over the last ten years Umicore's pro-active 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 2015.

#### 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 by which Umicore committed to spend  $\in$  62 million over 15 years to remediate the historical pollution at four sites, of which two - Balen and Overpelt - now belong to Nyrstar, a business divested by Umicore in 2007.

2015 Activities: In Hoboken, an agreement was reached with the competent authorities to extend the on-site storage facility, so that on-site remediation works (excavation) can restart. A final remedial action plan for the groundwater has been completed and submitted to the authorities for approval.

In Olen, the active on-site groundwater remediation programme started in 2007 continued in 2015.

Umicore continued with other actions as part of the Covenant including the excavation of zinc ashes from all private driveways in the entire 9 km perimeter covered by the covenant. The work were completed in 2015 with excavated material being stored safely at the Nyrstar plant in Balen.

In 2014, Umicore and the competent authorities signed an agreement to prolong by five years the period to complete the necessary risk reduction action within the 9km perimeter. The agreement also contains an important clause through which Umicore and the authorities will tackle the remediation of the Bocholt site, a former arsenic plant that was shut down in the early 1970s.

#### France

In Viviez, Umicore continued with its large-scale remediation programme started in 2011. The project consists mainly of removing, rendering inert and restoring safely more than one million cubic metres of contaminated soil and waste. By the end of 2015, 1,213,000 m³ of contaminated soil and waste had been removed and treated. The project is expected to be finalized in 2016.

#### USA

Umicore continued to treat drainage water at a former mining site in Colorado. Umicore is reviewing alternative technologies aimed at decreasing the metal concentration in the discharge and thus decreasing the volume of solid waste material produced.

A new waste water treatment facility will be built in order to be able to meet the future more stringent discharge limits, while at the same time operating costs will decrease.

After the closing down of the cobalt activities at the Maxton plant in North Carolina, soil and groundwater contamination was identified. Umicore entered into a voluntary remediation programme with the authorities. Modeling indicated a forecasted end of the project in 2030.

#### Brazil

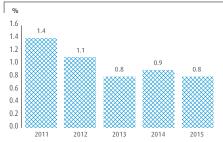
During an environmental assessment that was performed following its acquisition, groundwater pollution was detected at the Guarulhos site in Brazil.

This historical pollution dates from before 2003, when Umicore purchased these operations. After the initial investigation, Umicore took immediate measures to stop the spreading of this contamination to the neighbouring areas by installing a hydraulic barrier that is now in full operation since 2011. Targeted extraction systems were put in operation on site in order to speed up the remediation. Both systems (Double Phase and the Soil Vapor extraction) proved their efficiency given the amount of pollutant mass removed so far. Further, Umicore has assessed the impact the historical contamination had to areas outside the operational plant and is working with the local authorities to develop a remediation programme and to implement certain precautionary measures relating to the local community such as the relocation of a school.

## E9 Regulatory compliance and management system

#### Group data





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 times the number of parameters per measurement.

#### 2015 business group data

			Energy & Surface		Discontinued	
	unit	Catalysis	Technologies	Recycling	operations	Umicore Group
Measurements exceeding limit	N°	16	7	28	622	673
Compliance excess rate	0/0	0.11	0.04	0.27	1.65	0.81

In 2015, some 83,000 environmental measurements were carried out at all of Umicore's industrial sites compared to some 86,000 the year before.

This decrease is mainly due to the site of Sancoale (India, Discontinued Operations) having left the Group, in combination with reduction in measurement frequencies/parameters at many individual sites. The number of measurements that did not meet the regulatory or permit requirements is very low and further decreased to 0.81% for the Group, compared to 0.93% in 2014.

Three out of the 65 industrial sites are exempt from implementing a certified environmental management system. This is based on a strict procedure that confirms that the sites in question have no significant environmental impacts and would therefore not benefit substantially from installing such a system. Of the 62 remaining sites, 57 sites have put in place an environmental management system certified against ISO 14001. Three of the remaining five sites are acquisitions that joined Umicore reporting in 2015, and the sites are planning the implementation of an environmental management system in 2016/17. All major sites with significant environmental impacts have been certified against the ISO 14001 management system for many years.

In total, 25 environmental complaints were received in 2015. These were mainly related to noise and odour. Fifteen of the complaint files have already been closed.

## **E10 Biodiversity**

#### Group data

	unit	2011	2012	2013	2014	2015
Sites having a potential environmental impact on an area of high biodiversity value	N°	11	15	16	16	15

The biodiversity indicator reports the number of sites operating in or adjacent to an area of high biodiversity value as defined by regional, national authorities or international conventions.

The company believes that its current activities have little adverse impact on the biodiversity of the environment in which its sites are operating. The historical contamination caused by past activities is dealt with through specific soil and groundwater remediation projects (see note E8).

Fifteen sites reported that they are operating close to a classified biodiversity sensitive area.

Umicore's policy includes performing a detailed environmental impact assessment as part of all major investments, acquisitions and transfers of land.

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# Social statements

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## Social key figures

	unit	notes	2011	2012	2013	2014	2015
Workforce (fully consolidated companies)	N°	S2	14,572	14,438	14,057	14,074	13,730
Temporary contracts	% of workforce	S2	4.77	4.21	3.42	3.62	3.91
Average training hours per employee	hours/employee	S3	51.94	50.72	45.18	45.59	45.06
Employees having a yearly appraisal	% of workforce	S3	87.16	91.80	95.65	95.82	95.97
Voluntary leavers - ratio	% of workforce	S4	3.84	3.20	3.33	3.42	3.35
Employees working in a site that has received an external recognition as preferred employer	% of workforce	S4	52.64	68.31	72.63	69.66	69.25
Total donations	€ thousand	S5	1,751.02	1,759.18	1,612.80	1,409.35	1,219.38
Sites having an external communications plan	% sites	S5	59.70	62.69	63.24	50.00	52.24
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	S6	69.81	70.80	71.33	71.44	71.11
Exposure ratio 'all biomarkers aggregated' (1)	0/0	S9	5.2	4.3	2.6	1.8	2.3
Number of occupational linked diseases	N°	S9	22	20	14	21	12
People with platinum sensitisation	N°	S9	4	6	4	4	0
Fatal accidents	N°	S10	0	0	0	2	0
Lost Time Accidents (LTA)	N°	S10	60	49	35	37	47
Lost Time Accidents (LTA) for sub-contractors	N°	S10	17	33	22	11	9
LTA frequency rate	LTA/million hours worked	S10	3.61	2.86	2.08	2.16	2.66
LTA severity rate	lost days/thousand hours worked	S10	0.11	0.11	0.10	0.94	0.12

(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, 115 consolidated sites are included in the social reporting. The following new sites are added: Rayong (Thailand) where a new production plant of Catalysis is being built and two sales offices were created in Paris (France) and Kuala Lumpur (Malaysia) as a consequence of the carve out of the Zinc activities. One production plant was closed (Sancoale, India, Zinc Chemicals) while two others were divested: Maxton (US) belonging to Recycling and the joint venture of Solvicore based in Hanau (Germany). Furthermore, Element Six Abrasives closed two offices in New York (US) and Sao Paolo (Brazil).

45 small sites (sites with less than 20 employees) were exempt from reporting on the gender and employee category split concerning training hours, on the status of the improvement plan for being considered a preferred employer and on having a learning and development plan. Additionally 3 larger sites who joined the Group in 2014 were exempt from social reporting, other than headcount related KPI's.

The sites report full year data for the social indicators. Data linked to the progress towards the social objectives are reported in the third quarter with actions planned for the fourth quarter also indicated in this reporting.

The indicators presented are based on data from fully consolidated companies unless indicated otherwise. A note underneath the relevant table or chart has been provided to highlight indicators that have been added for the first time in 2011 – these are mainly linked to the reporting scope of the Vision 2015 strategy. More information on the progress towards these objectives can be found in the management review between pages 8 and 33 of this report. Additional information on Umicore's social management approach can be found on our website:

http://annualreport.umicore.com/management-review/group-review/management-approach/social/Approach/

## S2 Workforce

## Group data

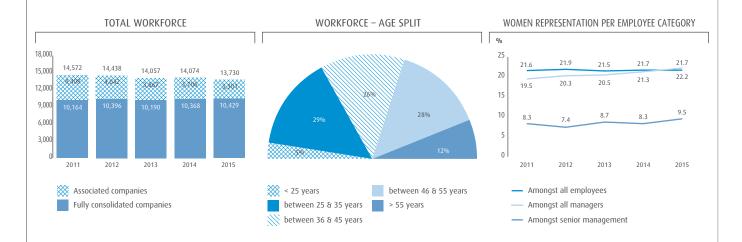
	unit	2011	2012	2013	2014	2015
Workforce (fully consolidated companies)	N°	10,164	10,396	10,190	10,368	10,429
Workforce from associated companies	N°	4,408	4,042	3,867	3,706	3,301
Employees men	N°	7,972	8,121	7,996	8,120	8,164
Employees women	N°	2,192	2,275	2,194	2,248	2,265
Employees full time	N°	9,494	9,699	9,491	9,631	9,697
Employees part time	N°	670	697	699	737	732
Employees <25 years	N°	718	675	603	584	544
Employees between 25 and 35 years	N°	2,796	2,968	2,909	3,000	3,026
Employees between 36 and 45 years	N°	2,749	2,753	2,646	2,721	2,663
Employees between 46 and 55 years	N°	2,951	2,982	2,937	2,916	2,984
Employees > 55 years	N°	950	1,018	1,095	1,147	1,212
Temporary contracts	% of workforce	4.77	4.21	3.42	3.62	3.91

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.

Part time: Employees working a reduced number of shifts, working days or working hours due to voluntary work time reduction.



#### 2015 regional data

	unit	Еигоре	North America	South America	Asia- Pacific	Africa	Umicore Group
Workforce (fully consolidated companies)	N°	6,694	857	692	1,877	309	10,429
Workforce from associated companies	N°	976	21	444	1,220	640	3,301
Employees men	N°	5,379	655	507	1,435	188	8,164
Employees women	N°	1,315	202	185	442	121	2,265
Employees full time	N°	5,989	841	692	1,866	309	9,697
Employees part time	N°	705	16	0	11	0	732
Temporary contracts	% of workforce	5.44	0.70	0.43	1.86	0.00	3.91

#### 2015 business group data

	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Corporate	Umicore Group
Workforce (fully consolidated companies)	N°	2,443	2,258	3,211	1,517	1,000	10,429
Workforce from associated companies	N°	168	936	0	508	1,689	3,301
Employees men	N°	1,918	1,799	2,622	1,231	594	8,164
Employees women	N°	525	459	589	286	406	2,265
Employees full time	N°	2,333	2,099	2,967	1,443	855	9,697
Employees part time	N°	110	159	244	74	145	732
Temporary contracts	% of workforce	6.75	3.28	2.49	4.35	2.30	3.91

#### Total workforce

The total workforce decreased by 344 employees to a total of 13,730. For the fully consolidated companies, the workforce increased by 61 people to 10,429. The increase in headcount was concentrated in the business groups Catalysis and Energy & Surface Technologies. Amongst the associated companies there was a decrease of 405 employees as a result of production realignments and also by the fact that two of the associated companies were divested.

#### Gender split

The percentage of women was 21.7% 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 five years. Women are more represented in administrative and commercial functions, compared to functions in the industrial operations. There are significant regional variations with Belgium and Northern Europe having a lower percentage of women employees compared to the rest of the world.

#### **Temporary contracts**

Temporary contracts as a percentage of the workforce of fully consolidated companies slightly increased to 3.91% in 2015.

#### 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 18.7% in 2010 to 22.2% in 2015. Also the percentage of women in senior management has increased from 6.4% in 2010 to 9.5% in 2015.

General overview of sites and employees			
	Industrial sites	Other sites	Employees
Еигоре			
Austria	1		135
Belgium	7 (1)	2 (1)	2,999 (72)
Czech Republic		1	3
Denmark		1	12
France	5	2	783
Germany	6 (1)	2 (1)	2,131 (378)
Hungary		1	5
Ireland	(1)		(400)
Italy	1	3	85
Liechtenstein	1		73
Luxemburg		2	10
Netherlands	2		123
Norway	1		59
Poland	1	2	76
Portugal		1	6
Russia		1	6
Slovakia	1		43
Spain		2	16
Sweden	1 (1)	1	40 (68)
Switzerland	1	2	32
Turkey		1	
United Kingdom	1 (1)	3	54 (58)
Asia-Pacific			
Australia		3	13
China	8 (4)	6 (1)	998 (1,038)
India	1	1	72
Japan	4	3 (1)	160 (10)
Malaysia		1	70
Philippines	1		78
South Korea	2 (1)	1	330 (168)
Taiwan	1	1	23
Thailand	3		133
United Arab Emirates	(1)		(4)
North America			
Canada	3		235
Mexico		1	6
United States	9	2 (1)	616 (21)
South America			
Argentina	1		53
Brazil	3		639
Peru	(1)		(444)
Africa	2 (1)		
South Africa	2 (1)	1	309 (640)
Total	68 (13)	47 (5)	10,429 (3,301)

#### General overview of sites and employees

Figures in brackets denotes "associates and joint venture companies". Where a site has both production facilities and offices (eg Hanau, Germany) it is classified as an industrial site only.

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## **S3** People development

#### Group data

	unit	2011	2012	2013	2014	2015
Sites having a development plan in place for people development	% of total sites	67.16	76.12	76.47	79.73	97.01
Employees having a yearly appraisal	% of workforce	87.16	91.80	95.65	95.82	95.97
Average number of training hours per employee	hours/employee	51.94	50.72	45.18	45.59	45.06
Average number of training hours per employee – Men	hours/employee	53.20	51.75	45.82	48.09	45.32
Average number of training hours per employee – Women	hours/employee	47.37	46.04	42.26	39.76	47.39
Average number of training hours per employee – Managers	hours/employee	61.84	64.15	41.41	37.18	34.24
Average number of training hours per employee – Other employee categories	hours/employee	48.55	45.57	44.82	46.29	46.09

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.

AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE hours/employee 60 51.9 50.7 50 45.2 45.6 45.1 40 30 20 10 0 2011 2012 2013 2014 2015





## 2015 regional data

	unit	Еигоре	North America	South America	11510	Africa	Umicore Group
Average number of training hours per employee	hours/employee	37.93	42.54	95.64	56.88	23.23	45.06
Employees having a yearly appraisal	% of workforce	98.67	94.80	97.30	85.54	100.00	95.97

### 2015 business group data

	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Corporate	Umicore Group
Average number of training hours per employee	hours/employee	46.20	55.12	42.06	40.28	37.13	45.06
Employees having a yearly appraisal	% of workforce	94.04	89.11	99.97	93.27	100.00	95.97

#### Training hours

In 2015, the average training hours per employee reached 45.06 hours. This was in line with average training hours in 2013 and 2014. In the years 2011 and 2012 the average was higher being influenced by a number of newly hired employees and the start-up of several new operations.

Data shows that managers receive a lower number of training hours (34.2 hours) compared to other employees (46.1 hours). In 2013 a global Learning Management System was launched for all managers worldwide and other employees in Belgium and Germany. After rolling it out to all employees in North and South America in 2014, additional sites were added, reaching approximately 85% of all employees by end of 2015.

#### Yearly appraisal

In 2015 nearly 96% of all employees from fully consolidated companies have an appraisal interview to discuss their development at least once a year.

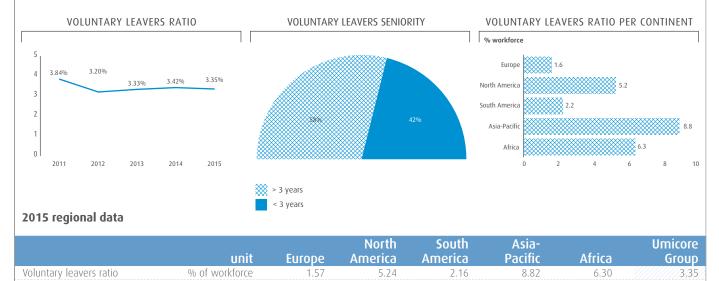
## **S4** Preferred employer

#### Group data

	unit	2011	2012	2013	2014	2015
Sites having a plan regarding preferred employer in place	% of total sites	70.15	76.12	82.35	81.08	95.52
Voluntary leavers ratio	% of workforce	3.84	3.20	3.33	3.42	3.35
Voluntary leavers men	N°	287	251	253	273	280
Voluntary leavers women	N°	96	81	89	80	69
Voluntary leavers seniority < 3 year	N°	222	214	217	209	202
Voluntary leavers seniority > 3 year	N°	161	118	125	144	147
Employees working in a site that has received an external recognition as preferred employer	% of workforce	52.64	68.31	72.63	69.66	69.25
External recognitions related to preferred employer	N°	18	31	33	34	30

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.

External recognition as a preferred employer: External recognitions or awards that enhance the reputation of the site or Umicore as an attractive employer.



#### 2015 business group data

			Energy & Surface		Discontinued		Umicore
	unit	Catalysis	Technologies	Recycling	operations	Corporate	Group
Voluntary leavers ratio	% of workforce	4.28	5.23	1.91	2.52	2.87	3.35

#### **Voluntary leavers**

In the last five years, the percentage of voluntary leavers has fluctuated between 3.2 and 3.8. The 3.35% for 2015 is within this range. As was the case in previous years, significant regional differences can be observed with Asia Pacific reporting the highest turnover rate (8.8%) and Europe (1.6%) the lowest. The high turnover rate in Asia Pacific is not unique to Umicore, can be explained by a highly competitive and fluid labour market in some of the growth markets.

#### Voluntary leavers - gender and seniority

19.8% of the voluntary leavers are women, which is slightly lower than the 21.7% presence of women in the workforce of fully consolidated companies. 57.9% of the voluntary leavers in 2015 left during their first three years of service with the company.

#### **External recognition**

Umicore stimulates its sites to seek external recognition as a preferred employer. In some countries where Umicore has a significant workforce, preferred employer programmes exist that offer high levels of visibility and recognition – this is particularly the case in Europe. All the sites in Belgium, France, Brazil and the main sites in Germany obtained national recognition as a Top Employer. Many of Umicore's sites are small to medium sized operations and their recognition efforts are channelled to the local town or region where official recognition schemes are seldom available. Recognition in such cases can come from local associations, like an industry association, or a local newspaper. In total 69% of the employees work at a site that received formal external recognition in 2015.

#### People survey results

A global People Survey is carried out on a regular basis. In 2014, the employees had the opportunity to give their opinions. In 2015, all sites implemented action plans related to the feedback received through this survey, with the goal of further improving the engagement and well-being of the employees.

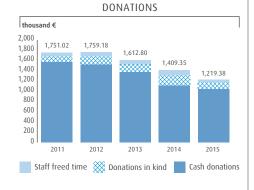
#### S5 Accountability to local community

#### Group data

	unit	2011	2012	2013	2014	2015
Sites having a plan regarding accountability to local community	% of total sites	57.58	60.82	65.69	74.31	99.03
Total donations	€ thousand	1,751.02	1,759.18	1,612.80	1,409.35	1,219.38
Cash donations	€ thousand	1,568.80	1,514.60	1,373.82	1,103.47	1,034.91
Donations in kind	€ thousand	104.97	159.98	152.27	200.88	135.11
Staff freed time	€ thousand	77.24	84.60	86.71	104.99	49.36
Sites having an external communication plan in place	% of total sites	59.70	62.69	63.24	50.00	52.24

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.

As from 2009, the donations are subdivided into cash donations, donations in kind and staff time. Group level donations are co-ordinated by a Committee reporting to the CEO.



## 2015 regional data

	unit	Еигоре	North America	South America	Asia-Pacific	Africa	Umicore Group
Total donations	€ thousand	931.04	129.94	63.77	70.74	23.89	1,219.38

## 2015 business group data

			Energy & Surface				
	unit	Catalysis	Technologies	Recycling	operations	Corporate	Umicore Group
Total donations	€ thousand	222.08	183.33	292.62	49.37	471.99	1,219.38

#### **Donations**

In 2015, Umicore contributed a total of EUR 1,219 thousand in donations. For the business units, the total amount of EUR 747 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 EUR 472 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 2015 included support for two major UNICEF educational projects in Madagascar and in India, four projects co-ordinated by Entrepreneurs for Entrepreneurs (in the Philippines, Cambodia, Democratic Republic of Congo and Haiti) and support for student sustainable mobility projects.

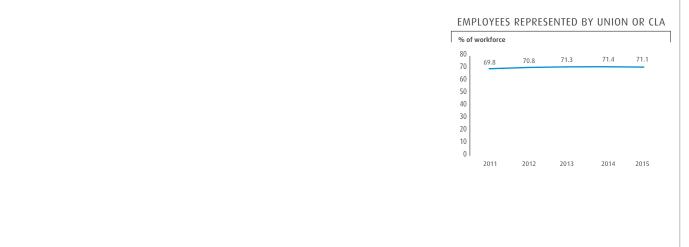
#### **External communication**

52% of the sites have an external communication plan in place to ensure a suitable level of engagement with their local community. Depending on the size of the operation and its link to the local community these communication plans include: newsletters, public hearings, meetings with local authorities, plant visits for the local community and press releases provided to local media.

## **S6 Employee relations**

#### Group data

	unit	2011	2012	2013	2014	2015
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	69.81	70.80	71.33	71.44	71.11



#### 2015 regional data

	unit	Еигоре		South America	Asia- Pacific	Africa	Umicore Group
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	86.44	8.17	93.35	39.53	55.66	71.11

#### 2015 business group data

	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Corporate	Umicore Group
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	60.79	56.38	83.71	79.30	76.70	71.11

#### **Union and Collective Labour Agreement**

In total, 71.1% of Umicore employees belong to a trade union organization and/or the level of their wages are negotiated through a collective bargaining agreement. On a regional basis, there are important differences in union representation, with the highest representation in South America and Europe and the lowest in North America and Asia Pacific.

#### 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, recognizing the right to its employees to organize 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.

## **S7 Code of Conduct**

In 2011, Umicore organized for the first time a systematic Group-wide internal reporting on Code of Conduct issues. In 2015 a total of 19 cases were reported, involving a total of 22 employees. The type of action taken varies from a warning letter to dismissal.

## **S8 Sustainable procurement**

#### 2015 business group data

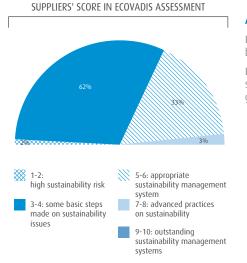
		Direct and indirect procurement					Indirect procurement		
	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Согр	oorate ⁽²⁾		
Suppliers ⁽¹⁾ that have agreed on the Sustainable Procurement Charter	% suppliers	75	84	91	91		81		

(1) From those suppliers to whom Umicore has sent the Sustainable Procurement Charter (only to key suppliers of each business unit) (2) Corporate includes Procurement & Transportation department and UMS Taiwan

#### Sustainable Procurement Charter

In the course of 2015, our procurement teams and business units continued to select key suppliers based on criteria such as size, geographical location and type of product or service provided (including whether critical to the functioning of a Umicore entity).

The companies selected included many suppliers of goods and services and as well as some suppliers of raw materials. In total, 1,336 suppliers were invited to adhere to the charter, compared to 1,226 at the end of 2014. By the end of 2015, 83% of these 1,336 suppliers had formally acknowledged their adherence to the terms of the charter.



#### **Assessment of suppliers**

In addition to the roll-out of the charter, sustainability performance of specific suppliers is assessed by Ecovadis.

In 2015, the procurement teams identified 47 suppliers for CSR assessment. The selection of those suppliers was based on the above mentioned risk assessment in relation to critical dependency, geographical presence and spend with these suppliers.

# Average score of assessed suppliers by topic - 2015 Group data

	Group
Environmental	45
Labor practices	45
Fair business practices	41
Suppliers	36
Overall	43

Of the 47 selected suppliers, 7 suppliers did not respond to the questionnaire or did not complete the assessment process. Of the 40 received score cards, 22 companies had a score between 25 and 44, meaning that they have taken basic steps on sustainability issues. Only one company had a score equal to 20, representing a high risk regarding sustainability issues. 14 companies scored, overall, between 45 and 64, meaning that they have "an appropriate sustainability management system" and 3 companies scored higher, showing "advanced practices on sustainability".

Since 2011, the scores of the assessed suppliers is in 44% of the cases above the current Ecovadis community average score of 42 which means that these suppliers have reached the level of being "engaged in CSR" in their overall business approach.

In October 2015, the Umicore Group was re-evaluated by Ecovadis and was scored 73, confirming the company's advanced practices in sustainability with a "structured and proactive CSR approach, engagements / policies and tangible actions on major issues with detailed implementation information and significant CSR reporting on actions & performance indicators". The progression from the 2013 score of 67 reflects improvements in the areas of Environment and Sustainable Procurement.

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#### Sustainable development and procurement training

Since 2011 a web-based learning tool has been available to all employees on the My Campus learning platform to promote awareness of sustainable procurement. Over the course of this period 219 people have completed the learning module.

#### Conflict minerals approach

In 2012 the U.S. Securities and Exchange Commission (SEC) issued a final rule on conflict minerals based on section 1502 of the Dodd-Frank Act. This rule obliges US stock listed companies to declare whether the tin, tantalum, tungsten and gold in their products have originated from the Democratic Republic of Congo or an adjoining country. While Umicore is not itself subject to the reporting requirements of Dodd-Frank, we use the above rulings as a guideline for our business. In this regard, our Precious Metals Refining operations in Hoboken and Guarulhos are certified as "conflict-free smelters" in 2015 for their operations of the previous year by the London Bullion Market Association (LBMA). The Jewellery & Industrial Metals operations in Pforzheim, Vienna and Bangkok are certified as part of the Responsible Jewellery Council's (RJC) Chain of Custody programme until 2016. The sites in Guarulhos, Amsterdam, Pforzheim and Bangkok are also accredited by the LBMA as Good Delivery refiners. In 2014 the business unit also passed the audit for responsible platinum sourcing by the RJC. Both the RJC Chain of Custody and LBMA Good Delivery accreditations qualify the accredited sites for listing in the EICC (Electronic Industry Citizenship Coalition) Conflict Free Smelter List.

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".

#### http://www.umicore.com/en/media/topics-of-interest/conflict-minerals/

More information on Umicore's relationship with suppliers can be found in the Stakeholder Engagement section in the Corporate governance statements on page 171 and in the management review between pages 30 and 32.

# **S9 Occupational health**

All consolidated manufacturing sites where Umicore has operational control are included in the scope of the occupational health reporting. Compared to 2014, data of two sites are not reported anymore Sancoale (India, Discontinued Operations); Maxton (USA, Recycling) Four sites were added to the reporting scope: Wickliffe (USA, Energy & Surface Technologies); a second plant in Cheonan (South-Korea, Energy & Surface Technologies); Tokoname (Japan, Catalysis) and Shirwal (India, Catalysis). This brings the total number of reporting sites to 65.

Please note that due to improved analytical and reporting methods, some of the data published in the 2014 annual report has been restated in the 2015 report.

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 on the website

# http://annualreport.umicore.com/management-review/group-review/management-approach/social/Approach/

# Group data

	unit	2011	2012	2013	2014	2015
Exposure ratio 'all biomarkers aggregated' (1)	0/0	5.2	4.3	2.6	1.8	2.3
Exposure ratio lead (blood) ⁽²⁾	0/0	1.4	0.5	0.9	1.0	0.8
Exposure ratio arsenic (urine) ⁽²⁾	0/0	2.2	1.4	1.6	1.1	1.3
Exposure ratio cobalt (urine) ⁽²⁾	0/0	22.1	14.8	10.7	7.3	8.7
Exposure ratio cadmium (blood) ⁽²⁾	0/0	0.8	1.7	0.6	0.6	0.2
Exposure ratio cadmium (urine) ⁽²⁾	0/0	1.5	3.0	1.0	0.6	1.1
Exposure ratio nickel (urine) ⁽²⁾	0/0	6	7	1	0.3	1.3
People with platinum salts sensitisation	N°	4	6	4	4	0
People with noise induced hearing loss	N°	9	4	3	5	2
People with contact dermatitis	N°	2	2	2	2	3
People with occupational asthma other than Pt-salts	N°	0	1	0	0	1
People with muskulo-skeletal ailments	N°	11	7	5	14	7

(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 inspired by the biological exposure indices of the American Conference of Governmental Industrial Hygienists (ref. 2011) and are at least as strict as any legal limits in force in countries where we operate.

It is Umicore's objective to achieve in 2015 a biomarker of exposure concentration below the internal Umicore target value for each exposed individual. The following target values have been defined:

Cadmium: 2 microgramme per gramme of creatinine in urine and 0.5 microgramme per 100 ml of blood. Lead: 30 microgramme per 100 ml of blood.

Cobalt: 15 microgramme per gramme of creatinine.

Arsenic and nickel: 30 microgramme per gramme of creatinine. Platinum salts: no new cases of platinum salt sensitisation.

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 2015, a total of 4,764 biological samples were taken from employees with an occupational exposure to at least one of the metals mentioned above (platinum salts excluded). 110 readings showed a result in excess of the internal target value. This brings the total excess rate to 2.3% compared to 1.8% in 2014 but well down from 5.2% in 2011. All occupationally exposed employees are regularly monitored by an occupational health physician.

#### Lead

Occupational lead exposure represents a potential health risk in the business groups Energy & Surface Technologies, and Recycling. In total, 12 of the 1,512 occupationally exposed employees exceeded the target value of  $30\mu g/100ml$  bringing the excess rate for lead exposure to 0.8%, slightly down from 1.0% in 2014 but well below the 1.4% in 2011.

The majority of the excess readings were in the Hoboken site (Belgium, Recycling). In three cases, Umicore required to declare the excess results to the Belgian authorities.

Employees with excess readings have been allocated to a different workplace and are further monitored by an occupational health physician.

#### Arsenic

Occupational exposure to arsenic is possible in the business groups Energy & Surface Technologies and Recycling. In total, 1.3% of the 902 occupationally exposed had an excess reading during 2015 compared to 1.1% in 2014 and 2.2% in 2011.

#### Cobalt

In total, 762 employees are occupationally exposed to cobalt, mainly in the business group Energy & Surface Technologies. The number of employees exceeding the target value was 66 resulting in an excess rate of 8.7%%, slightly up from 7.3% in 2014 but significantly down from 22.1% in 2011.

Excess readings in the business unit Cobalt & Specialty Materials slightly decreased from 37 in 2014 to 32 in 2015. However, we noticed an increase in excess readings in the business unit Rechargeable Battery Materials from 15 in 2014 to 34 in 2015. This is likely caused by a significant increase in production. These business units have for many years been developing an occupational health approach for cobalt including biological monitoring. The business units are implementing action plans to achieve a significant reduction of the cobalt exposure at their workplaces.

#### 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 while cadmium in blood correlates to more recent occupational exposure. In 2015, a total of 472 employees had an occupational exposure to cadmium.

Five employees recorded a cadmium in urine reading in excess of the target value resulting in an excess rate of 1.1%% compared to 0.6% in 2014 and 1.5% in 2011.

Additional technical measures are being implemented to further decrease exposure. Workplace precautions such as employee rotation, strict adherence to respiratory protection programmes and personal hygiene measures are also in place to minimize exposure.

The excess rate for cadmium in blood level was 0.2 %.

#### Nickel

The business groups Energy & Surface Technologies and Recycling have occupational exposure to nickel. In 2015 a total of 1,116 employees were exposed to nickel. In 2015 fifteen of the exposed workers exceeded the target level resulting in an excess level of 1.3% compared to 0.3% in 2014 and 6% in 2011.

This increase is likely caused by the increased production volumes at the business unit Rechargeable Battery Materials.

#### **Platinum salts**

The business groups Catalysis and Recycling have workplaces with exposure to platinum salts.

In 2015 we had no newly diagnosed employees with a platinum salt sensitisation, compared to four cases in 2014. All workers exposed to platinum salts are monitored through an occupational health programme and regularly screened on allergy.

#### Other occupational diseases

In 2015, 3 employees had a contact dermatitis, 2 employees were diagnosed with industrial noise-induced hearing loss and 7 developed a musculo- skeletal disorder due to their occupation and 1 developed an occupational sensitisation linked to organic solvents exposure. All people concerned are followed by an occupational health physician and measures were taken to prevent further deterioration of their conditions.

# S10 Occupational safety

In total, 85 consolidated sites are included in the occupational safety reporting. Compared to 2014, 2 sites were added to the safety reporting: Rayong (Thailand, Catalysis); a second operation in Jiangmen (China, Energy & Surface Technologies). In addition, Umicore included also smaller commercial sites into its safety figures. Additional information on Umicore's management approach on safety can be found on the website <a href="http://annualreport.umicore.com/management-review/group-review/management-approach/social/Approach/">http://annualreport.umicore.com/management-review/group-review/management-approach/social/Approach/</a>.

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 2015.

# Group data

	unit	2011	2012	2013	2014	2015
Fatal accidents	N°	0	0	0	2	0
Fatal accidents sub-contractors	N°	0	0	0	0	0
Lost Time Accidents (LTA)	N°	60	49	35	37	47
Lost Time Accidents (LTA) sub-contractors	N°	17	33	22	11 ///	9
LTA frequency rate		3.61	2.86	2.08	2.16	2.66
LTA frequency rate sub-contractors		5.50	10.06	5.76	2.91	2.05
Calendar days lost	N°	1,771	1,897	1,726	16,122	2,134
LTA severity rate		0.11	0.11	0.10	0.94	0.12
Recordable Injuries (RI)	N°	221	160	146	112	148
Recordable Injuries frequency rate		13.3	9.3	8.7	6.5	8.4
Ratio N° of sites with no LTA $/$ total N° of sites reporting	0/0	77	85	79	84	84
Sites OHSAS 18001 certified	0/0	30.0	32.0	32.8	40.0	36.6

# Definition

Definition Umicore employee: a person belonging to Umicore's total workforce. A Umicore employee can be a full-time, part-time or temporary employee.

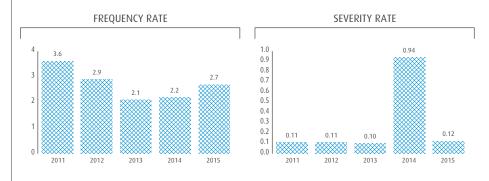
Sub-contractor: a person not belonging to Umicore's total workforce, providing services to Umicore in one of its premises under terms specified in a contract. Fatal accident: a work-related accident with fatal outcome.

Lost time accident: a work-related injury resulting in more than one shift being lost from work.

Recordable injury: 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.



#### 2015 regional data

	unit	Еигоре	North America	South America	Asia-Pacific	Africa	Umicore Group
Lost Time Accidents (LTA)	N°	40	4	0	3	0	47

#### 2015 business group data

	unit	Catalysis	Energy & Surface Technologies	Recycling	Discontinued operations	Corporate	Umicore Group
Fatal accidents	N°	0	0	0	0	0	0
Lost Time Accidents (LTA)	N°	4	9	24	8	2	47
LTA frequency rate	per million hours worked	1.0	2.4	4.7	3.2	0.9	2.7
Calendar days lost	N°	38	333	1,272	426	65	2,134
LTA severity rate	per thousand hours worked	0.01	0.09	0.25	0.17	0.03	0.12

In 2015, a total number of 47 lost time accidents were recorded compared to 37 in 2014. This resulted in a frequency rate of 2.66, up from 2.16 in 2014. In total, 2,134 calendar days were lost due to these lost time accidents. This resulted in a severity rate 0.12.

The number of reported recordable injuries significantly increased to 148 compared to 112 in 2014. The recordable injury frequency rate for 2015 was 8.38 compared to 6.5 in 2014.

A total of 9 lost time accidents were registered for contractors compared to 11 in 2014. This corresponded to a frequency rate of 2.05 compared to 2.91 in 2014.

During 2015, 84% of the reporting sites operated without a lost time accident, same number as in 2014. Twenty six sites are certified using the occupational health and safety management system OHSAS 18001 compared to 25 in 2014.

40 lost time accidents, or 85% of the total number of lost time accidents, occurred in Europe. Of these 24 occurred in Belgian and 12 in German sites. The Americas accounted for 4 accidents while 3 accidents happened in the Asia-Pacific region.

In 2015, the business group Catalysis recorded 4 lost time accidents all in the Automotive Catalyst business unit. The total number of days lost was 38 compared to 20 in 2014. This resulted in a frequency rate of 0.97 and a very low severity rate of 0.01. The business group has implemented the SafeStart® programme in all its operating sites. This programme focuses on both habitual and unintentional safety behaviour. In addition, the business group invests heavily in sharing best safety practices and developed safety training matrices for each job. Progress is monitored through a set of leading safety indicators. All Automotive Catalyst production plants are required to be certified against the OHSAS 18001 management system. At year-end, the site in Karlskoga (Sweden) and Tsukuba (Japan) had 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. The sites in Burlington (Canada), Himeiji (Japan), Port Elizabeth (South Africa) and Suzhou (China) had operated at least 3 years without a lost time accident to contractors on site.

The business group Energy & Surface Technologies recorded 9 lost time accidents, 8 at the business unit Cobalt & Specialty Materials and 1 at the business unit Thin film Products. In total, 333 calendar days were lost. This resulted in a frequency rate of 2.38 and a severity rate of 0.09. The business units Electroplating, Rechargeable Battery Materials and Electro-Optic Materials operated without a lost time accident. The business unit Rechargeable Battery Materials and Flectro-Optic Materials operated without a lost time accident. The business unit Rechargeable Battery Materials has implemented an effective and pragmatic in-house developed safety leadership programme based on a behaviour observation and risk intervention technique as part of its safety ACCE programme (Awareness, Competence, Compliance, Excellence). At the end of 2015, the business unit operated more than 930 days with no lost time accidents while continuously expanding its activities and operations. The site in Dundee (UK) has been recognized 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) operated at least 3 years without lost time accident and recordable injury to Umicore staff and lost time accidents to contractors.

The business group Recycling had 24 lost time accidents. A total of 1,272 calendar days were lost. This represents a frequency rate of 4.72 and a severity rate of 0.25. The business unit Precious Metal Refining, with 15 lost time accidents, has implemented the SafeStart® programme in all of its departments. The site in Hoboken (Belgium) has also completed a SafeMap® leadership training for all its managers and supervisors. Following the training, the site is

now building further actions to improve its safety performance. The business unit Jewellery & Industrial Materials, recorded 7 lost time accidents while the business unit Technical Materials had 2 lost time accidents.

At the end of 2015 the site in Vicenza (Italy) operated at least 5 years without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site.

The Discontinued operations recorded 8 lost time accidents. A total of 426 calendar days were lost. The frequency rate was 3.21 and the severity rate 0.17. The Zinc Chemicals business unit reported 5 lost time accidents while the business unit Building Products had 3 lost time accident. At the end of 2015, the site in Vilvoorde (Belgium) had achieved more than 5 years with no lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site. The sites in Pasir Gudang (Malaysia) operated at least 3 years without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site.

An additional of 2 lost time accidents occurred in general services and corporate offices.

In 2015 the Group-wide process safety project made further progress with a number of on-site visits and inspections and the deployment of Group-wide safety standards and guidance notes related to 'integrity of design'. To train and deploy these standards and guidance notes, the project team engaged in workshops with all industrial sites in all regions, which were attended by several hundreds of colleagues. In addition to the process safety e-learning for employees involved in process safety, the project team embarked on the development of an in-house software to facilitate the process of risk identification and the implementation of risk reduction measures. Currently, the project team also develops additional guidelines on 'technical and operational integrity'.

Corporate governance statements

# Corporate governance statements

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# Corporate governance review

# 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

## (www.corporategovernancecommittee.be)

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 (http://www.umicore.com/en/corporate-governance/corporate-governance-charter/) and may be obtained on request from Umicore's Group Communications Department.

Umicore has articulated its mission, values and basic organizational philosophy in a document called "The Umicore Way". This document spells out how Umicore views its relationship with its customers, shareholders, employees and society.

In terms of organizational philosophy, Umicore believes in decentralization 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 believes that a good corporate governance structure is a necessary condition to ensure its long term success. This implies an effective decision-making process based on a clear allocation of responsibilities. It has to allow for an optimal balance between a culture of entrepreneurship at the level of its 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 Chief Executive Officer and the Executive Committee and also the specific role of the Audit Committee and of the Nomination and Remuneration Committee. The present statements provide information on governance issues which relate primarily to the financial year 2015.

# G2 Corporate structure

The Board of Directors is the ultimate decision-making body of Umicore save for those matters reserved to the Shareholders' Meeting pursuant to the Belgian Companies Code or Umicore's articles of association. The Board is assisted in its role by an Audit Committee and a Nomination and Remuneration Committee. The day-to-day management of Umicore has been delegated to the Chief Executive Officer, who is also the chairman of the Executive Committee. The Executive Committee is responsible for elaborating the overall strategy of Umicore and for submitting it to the Board for review and approval. It is responsible for implementing such strategy and for ensuring the effective oversight of the business units and corporate functions. The Executive Committee is also responsible for screening the various risks and opportunities that the Company might encounter in the short, medium or longer term (see Risk Management section) and for ensuring that systems are in place to address these. The Executive Committee is jointly responsible for defining and applying Umicore's approach to sustainable development.

Umicore is organized 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 South America, China, North America and Japan. 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

At 31 December 2015 there were 112,000,000 Umicore shares in issue. The identity of shareholders having declared a participation of 3% or more as of 31 December 2015 can be found in the chapter "parent company separate summarized financial statements" (p. 119).

Also on 31 December 2015 Umicore owned 3,927,534 of its own shares representing 3.51% of its capital. Information concerning the shareholders' authorization 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 respectively.

During the year 873,338 own shares were used in the context of the exercise of employee stock options and 33,400 shares were used for share grants, of which 4,500 to the Board members, 26,600 to the Executive Committee members and 2,300 following a partial conversion into shares of the bonus of the Chief Executive Officer.

# 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) General Meeting of Shareholders. No dividend will be paid which would endanger the financial stability of the Company.

In 2015 Umicore paid a gross dividend of € 1.00 per share relating to the financial year 2014. This equalled the gross dividend in respect of the financial year 2013.

In July 2015 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  $\in$  0.50 per share was paid on 3 September 2015. On 4 February 2016 the Board decided to propose to shareholders a total gross dividend of  $\in$  1.20 per share relating to financial year 2015. If the profit appropriation proposed to shareholders is approved, the gross pay out of the dividend in May 2016 shall therefore amount to  $\in$  0.70 per share (i.e. the total dividend less the above interim payment).

The System Paying Agent designated for the payment of the 2015 dividend is:

KBC Bank Havenlaan / Avenue du Port 2 1080 Brussels

# 3.3 Shareholders' meetings 2015

The Annual Shareholders' Meeting took place on 28 April 2015. 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 2014 mandates. At the same General Meeting Thomas Leysen and Marc Grynberg were reappointed as directors for three years, and the mandate of Rudi Thomaes as independent director was also renewed for three years. Also at the Annual Shareholders' Meeting the shareholders appointed Mark Garrett and Eric Meurice as new, independent directors for a period of three years, and they appointed Ian Gallienne as new director, also for a period of three years.

Finally, the Annual Shareholders' Meeting approved the remuneration of the Board for 2015. Details of the fees paid to the directors in 2015 are disclosed in the Remuneration Report.

# **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 2015, the Board of Directors was composed of nine members: eight non-executive directors and one executive director.

On the same date five 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.

Two of the nine Board members in function on 31 December 2015 are women. Umicore therefore no longer meets the minimum representation threshold of one-third, as imposed by the Belgian Companies Code and the recommendations of the Belgian Corporate Governance Committee, which will become effective on 1 January 2017. This situation is only temporary. Both the Nomination and Remuneration Committee and the Board commit themselves in this respect to take into consideration the gender diversity requirement in order to comply again with the above deadline.

The composition of the Board of Directors underwent the following changes in 2015:

- The mandates of Uwe-Ernst Bufe and Arnoud de Pret expired at the Annual Shareholders' Meeting of 28 April 2015 due to the age limit imposed by the Corporate Governance Charter;
- Isabelle Bouillot resigned as director with effective date 28 April 2015;
- Mark Garrett and Eric Meurice were appointed independent directors for a period of three years at the Annual Shareholders' Meeting held on 28 April 2015;
- · Ian Gallienne was appointed director for a period of three years at the above Annual Shareholders' Meeting.

# 4.2 Meetings and topics

The Board of Directors held five regular meetings in 2015. This is a decrease by two compared to the previous year. On two occasions the Board also took decisions by unanimous written consent.

During 2015 the matters reviewed by the Board included:

- · financial performance of the Group;
- · approval of the annual and half-year financial statements;
- · adoption of the statutory and consolidated annual accounts as well as the statutory and consolidated annual reports;
- · approval of the agenda of the Ordinary Shareholders' Meeting and calling of this Meeting;
- investment projects;
- · EHS review, including sustainable development;
- business risk assessment;
- · strategic opportunities and operational challenges;
- business reviews;
- mergers & acquisitions projects;
- human resources review;
- annual performance review of the Chief Executive Officer and the other members of the Executive Committee in respect of 2014;
- approval of draft terms of contribution of branches of activities in the context of the carve-out of the Zinc Chemicals and Building Products activities in Belgium;
- $\boldsymbol{\cdot}$  succession planning at the level of the Board and the Executive Committee;
- $\cdot$  distribution of an interim dividend.

The Board also visited several sites in the PR China: the Cobalt Specialty Materials plants in Guangzhou, as well as the old and the new Zinc Chemicals plant in Fuhong and the Automotive Catalyst sites in Suzhou.

# 4.3 Performance review of the Board and its Committees

Every two to three years the Chairman conducts a performance review of the Board and its Committees.

The next performance review will take place early 2016 on the basis of an individual assessment form.

# 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. Following the expiration of his Board mandate Arnoud de Pret, left the Audit Committee with effective date 28 April 2015. Mark Garrett was appointed member of the Committee and Ines Kolmsee was appointed Chairman of the Committee, both also with effective date 28 April 2015.

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

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The Committee met four times in 2015. Apart from the review of the 2014 full year accounts and those of the first half of 2015, the Committee also discussed the following matters: treasury items, corporate security, group tax items, internal audit activity reports, the 2016 audit plan and a preliminary review of the audit charter.

Furthermore, the Audit Committee conducted a self-assessment, the outcome of which recognized that the Audit Committee is satisfactorily functioning.

# 4.5 Nomination & Remuneration Committee

The Nomination and 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.

Three Nomination and Remuneration Committee meetings were held in 2015. During the same period the Committee discussed the remuneration policy for the Board members, the Board Committees members and Executive Committee members, and the rules of the stock grant and option plans offered in 2015. 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 meant under Article 524bis of the Belgian Companies Code.

The Executive Committee is composed of at least four members. It is chaired by the Chief Executive Officer, 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 Chief Executive Officer and recommendation of the Nomination and Remuneration Committee.

During 2015 the composition of the Executive Committee underwent the following changes:

· Géraldine Nolens was appointed Chief Counsel and member of the Executive Committee with effective date 1 July 2015;

• Hugo Morel retired and left the Executive Committee with effective date 1 October 2015.

On 31 December 2015 the Executive Committee was composed of seven members including the Chief Executive Officer.

#### **5.2 Performance Review**

A review of the performance of each Executive Committee member is conducted annually by the Chief Executive Officer and discussed with the Nomination and Remuneration Committee. The results are presented to the Board of Directors and discussed by the Board.

The Board also meets annually in a non-executive session (i.e. without the Chief Executive Officer being present) to discuss and review the performance of the Chief Executive Officer.

The above performance reviews took place on 5 February 2015.

# 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 market abuse regulations.

The options on Umicore shares as granted to the Chief Executive Officer, to the members of the Executive Committee and to designated Umicore employees in execution of various Umicore incentive programs 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

The Company'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 2015, save for the 3,927,534 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

The Company has not issued 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 authorized capital, only an Extraordinary Shareholders' Meeting is authorized 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 not amended in 2015.

#### 6.7 Authorized 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 "authorized capital". The authorization 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 2011 (resolutions published on 10 June 2011) has authorized the Board to increase the Company's share capital in one or more times by a maximum amount of  $\in$  50,000,000. Up until 31 December 2015 this authorization had not been used. It will lapse on 9 June 2016.

Following a resolution of the Extraordinary Shareholders' meeting held on 26 September 2014 the Board is authorized to acquire own Company shares on a regulated market within a limit of 10% of the subscribed capital, at a price per share comprised between  $\notin$  4.00 and  $\notin$  75.00 and until 31 May 2017 (included). The same authorization was also granted to the Company's direct subsidiaries. A total of 920,000 own shares were purchased by the Company in implementation of the above authorization during 2015.

# 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 take-over-bid

All the senior vice-presidents of the Group are entitled to a compensation equivalent to 36 months base salary in the event of a dismissal within twelve months of 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 (p. 158).

# G7 Conflicts of interests (Art. 523 – 524ter Companies Code)

On 5 February 2015, 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 Chief Executive Officer received a fixed gross remuneration of  $\notin$  660,000 in 2015. Also in 2015 he received a gross variable cash remuneration totalling  $\notin$  175,000 as non-deferred part of his variable cash remuneration for the reference year 2014.

Furthermore he received in 2015 a gross amount of  $\in$  72,900 as first half of the deferred payment of his variable cash remuneration for the reference year 2013 based on the two year average Umicore Group profitability criterion, i.e. the average Return on Capital Employed (ROCE) for the reference years 2013 and 2014 (i.e. 12.9% giving rise to a percentage pay-out of 54%) and a gross amount of  $\in$  90,450 as the second half of the deferred payment of his variable cash remuneration for the reference year 2012 based on the three year average Umicore Group ROCE for the reference years 2012, 2013 and 2014 (i.e. 14.2% giving rise to a percentage pay-out of 67%).

In 2016 he will receive the first half of the deferred payment of his annual variable cash remuneration for the reference year 2014 based on (1) the two year average Umicore Group ROCE for the reference years 2014 and 2015 and (2) the degree of meeting the plan performance, as approved by the Board, for the same reference years 2014 and 2015. The second half of the deferred payment of his annual variable cash remuneration for the reference year 2014 will be paid in 2017 based on (1) the three year average Umicore Group ROCE for the reference years 2014, 2015 and 2016 and (2) the degree of meeting the plan performance, as approved by the Board, for the same reference years 2014, 2015 and 2016 and (2) the degree of meeting the plan performance, as approved by the Board, for the same reference years 2014, 2015 and 2016.

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. In addition, the deferred pay-outs will furthermore be adjusted upwards or downwards depending on the degree of meeting the plan performance approved by the Board for the applicable reference years.

#### b) Grant of shares and stock options

The financial consequences for the Company consist of: either 1) as long as the Company 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 the Company would have to buy on that date.

During 2015, no specific transactions or contractual commitments occurred between a Board member or an Executive Committee member 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 29 April 2014 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 BVBA/SPRL Marc Daelman, represented by Marc Daelman for the exercise of this mandate.

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

# **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 can be found in 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.

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# 2015 Remuneration Report

# 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 BEL 20 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's 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 Umicore conducted at the end of 2014 a survey of director's fees of Umicore against those of quoted companies on the BEL 20 index as well as other European companies of similar size operating in the Chemicals, Metals and Materials sectors. The results of the survey, which were reviewed by the Nomination & Remuneration Committee of 4 February 2015, demonstrated that the non-executive Directors' remuneration is in line with the market practices. Therefore the Nomination & Remuneration Committee recommended to the Board to keep the remuneration at the same level for 2015 and to allow for an extra fee of  $\in$  1,000 per attended Board meeting for foreign based Board members.

The Board of Directors of 5 February 2015 followed this proposal and decided to submit this change to the approval of the shareholders. The annual shareholders' meeting of 28 April 2015 approved this change and the non-executive Directors' remuneration.

The annual fixed fees 2015 were maintained at the same level as in the prior year.

The remuneration of the non-executive Board members was as follows in 2015:

- Chairman: annual fixed fee: € 40,000 + € 5,000 per meeting attended + 1,000 Umicore shares.
- **Director**: annual fixed fee:  $\in$  20,000 +  $\in$  2,500 per meeting attended +  $\in$  1,000 per meeting attended for foreign based Board members + 500 Umicore shares.

The remuneration of the Board Committee members was as follows in 2015:

# Audit Committee

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

# Nomination and Remuneration Committee

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

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# 2015 Board remuneration overview

Name		(in €)	Meetings attended
Thomas Leysen (Chairman)	Board		
(non-executive director)	Fixed annual fee	40,000	
	Fee per attended meeting	5,000	5/
	Value of 1,000 granted shares	42,815	
	Nomination & remuneration Committee		
	Fee per attended meeting	5,000	3/3
	Total remuneration	122,815	
	Benefits in kind company car	3,175	
Marc Grynberg	Board		
(executive director)	No remuneration as a director		5/
	(see hereafter 2015 CEO remuneration)		
Isabelle Bouillot	Board		
(non-executive director)	Fixed annual fee	6,667	
Resignation with AGM of 28 April 2015	Fee per attended meeting	3,500	2/3
	Value of 167 granted shares	7,150	
	Total remuneration	20,817	
Uwe-Ernst Bufe	Board		
(non-executive director)	Fixed annual fee	6,667	
End of mandate with AGM of 28 April 2015	Fee per attended meeting	3,500	2/3
	Value of 167 granted shares	7,150	
	Total remuneration	20,817	
Arnoud de Pret	Board		
(non-executive director)	Fixed annual fee	6,667	
End of mandate with AGM of 28 April 2015	Fee per attended meeting	2,500	2/2
	Value of 167 granted shares	7,150	
	Audit Committee		
	Fixed annual fee	3,333	
	Fee per attended meeting	5,000	2/2
	Total remuneration	32,150	
Ian Gallienne	Board		
(non-executive director)	Fixed annual fee	13,333	
Appointed by the AGM of 28 April 2015	Fee per attended meeting	2,500	2/3
	Value of 333 granted shares retroceded to	14.257	
	GBL	14,257	
	Total remuneration	32,590	
Mark Garrett	Board		
(independent, non-executive director)	Fixed annual fee	13,333	
Appointed by the AGM of 28 April 2015	Fee per attended meeting	3,500	3/3
	Value of 333 granted shares	14,257	
	Audit Committee		
	Fixed annual fee	3,333	
	Fee per attended meeting	3,000	2/2
	Total remuneration	47,423	
Ines Kolmsee	Board		
(independent, non-executive director)	Fixed annual fee	20,000	
· · /	Fee per attended meeting	3,500	5/5
	Value of 500 granted shares	21,408	
	Audit Committee		
	Fixed annual fee	8,333	
	Fee per attended meeting as member	3,000	2/2
	Fee per attended meeting as Chairman	5,000	2/2
	Total remuneration	83,241	///////////////////////////////////////

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Name		(in €)	Meetings attended
Barbara Kux	Board		
(independent, non-executive director)	Fixed annual fee	20,000	
	Fee per attended meeting	3,500	5/5
	Value of 500 granted shares	21,408	
	Nomination & Remuneration Committee		
	Fee per attended meeting	3,000	3/3
	Total remuneration	67,908	
	Mandatory contribution to the Swiss social security	2,892	
Eric Meurice	Board		
(independent, non-executive director)	Fixed annual fee	13,333	
Appointed by the AGM of 28 April 2015	Fee per attended meeting	3,500	3/3
	Value of 333 granted shares	14,257	
	Total remuneration	38,090	
Jonathan Oppenheimer	Board		
(non-executive director)	Fixed annual fee	20,000	
	Fee per attended meeting	3,500	4/5
	Value of 500 granted shares	21,408	
	Total remuneration	55,408	
Rudi Thomaes	Board		
(independent, non-executive director)	Fixed annual fee	20,000	
	Fee per attended meeting	2,500	5/5
	Value of 500 granted shares	21,408	
	Nomination & Remuneration Committee		
	Fee per attended meeting	3, 000	3/3
	Audit Committee		
	Fixed annual fee	5,000	
	Fee per attended meeting	3,000	4/4
	Total remuneration	79,908	

# G13 CEO and Executive Committee remuneration

# Remuneration policy for the CEO and Executive Committee

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 Board to create shareholder value. Shares and stock options are 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. Unicore benchmarks the total remuneration of the CEO and the Executive Committee members against BEL 20 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 Group ROCE and performance against 2 years plan (y, y-1) for CEO / CFO / CTO / Corporate EVP; for EVP performance against 2 years Business Group plan
39 months	Deferred variable 25%	Based on Group ROCE and performance against 3 years plan (y, y-1, y-2) for CEO / CFO / CTO / Corporate EVP; for EVP performance against 3 years Business Group plan
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 / or assessed by the Nomination and Remuneration Committee subject to Board approval.

#### **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  $\in$  540,000, half of which relates to an undeferred payout 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.

The other half of the variable remuneration, for which the payout is deferred, is based (1) on the Umicore Group profitability criterion, i.e. the Return on Capital Employed (ROCE), as published in the annual report and (2) the degree of meeting the plan performance, as approved by the Board. The deferred payout 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 and the plan performance as reference. The other half is paid after a period of three years using as a reference the three year average ROCE and the plan performance. The ROCE range is set between 7.5% (= payout of 0%) and a maximum of 17.5% (= payout of 100% at plan performance). When the achieved ROCE percentage falls between any of the above targets, the payout will be pro-rated. In addition, the deferred payouts will furthermore be adjusted upwards or downwards depending on the degree of meeting the plan approved by the Board.

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 2015 was 5,200 shares. 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 currently amounts to 75,000. 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.

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#### 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.

#### 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  $\notin$  300,000, half of which involves an undeferred payout based on the annual individual performance (including adherence to the values of the Group, environmental and social performance).

The other half, involving a deferred payout, is based (1) on the Umicore Group ROCE profitability criterion, i.e. the Return on Capital Employed (ROCE), as published in the annual report and (2) the degree of meeting the plan performance, as approved by the Board. For Executive Committee members having Group responsibility such as the Chief Financial Officer, the Chief Technology Officer and the Corporate Executive Vice-President the plan performance is on Group level. For the Executive Vice-Presidents having full Business Group responsibility, the plan performance is their respective Business Group plan performance. The deferred payout is assessed over a multi-year timespan, with half of it paid after a period of two years, using the two years average ROCE and the plan performance as reference. The other half is paid after a period of three years based on the three years average ROCE and the plan performance. The ROCE range is set between 7.5% (= payout of 0%) and a maximum of 17.5% (= payout of 100% at plan performance). When the achieved ROCE percentage falls between any of the above targets, the payout will be pro-rated. In addition, the deferred payouts will furthermore be adjusted upwards or downwards depending on the degree of meeting the plan approved by the Board.

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 group's sustainability objectives.

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 2015 was 3,700 shares. 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 amounts to 17,500. 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 2015

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 €)		CEO	Executive Committee (in aggregate)
Status		Self-employed	
Time to cash convers	ion		
Current year	Fixed	660,000	2,471,250
15 months	Undeferred Variable 50% (ref year 2015)	220,000	690,000
27 months	Deferred Variable 25% (ref year 2014)	74,250	272,250
39 months	Deferred Variable 25% (ref year 2013)	76,950	256,500
3 years	Shares	172,978	773,527
3 to 7 years	Stock options	403,896	565,452
Dessies	Defined contribution plan	201,630	201,409
Pension	Defined benefits plan (service cost)	114,019	471,275
Others benefits	Representation allowance, benefit in kind company car, insurance benefits	47,388	334,146
Total		1,971,111	6,035,809

# G14 Share and share option ownership and transactions 2015

Executive Committee share option ownership and transactions 2015

Name	Options at 31 Dec 2014	Options granted in 2015	Number of options exercised	Average exercise price (in €)	Year of grant of optionsexercised	Number of options forfeited	Options at 31 Dec 2015 [*]
Marc Grynberg	540,000	75,000	112,000	18.19	2006 / 2008 / 2009	0	503,000
Stephan Csoma	31,000	17,500	7,500	38.07	2011	0	41,000
Denis Goffaux	77,500	17,500	10,000	38.07	2011	0	85,000
Géraldine Nolens**	33,000	6,000	15,000	30.19	2010 / 2011	0	24,000
Filip Platteeuw	45,500	17,500	10,500	36.89	2011 / 2012	0	52,500
Pascal Reymondet	102,500	17,500	25,000	32.57	2008	0	95,000
Marc Van Sande	106,338	17,500	28,838	31.20	2008 / 2010	0	95,000

* These options can be exercised at strike prices between € 22.30 and € 39.25

** Options granted in her capacity prior to appointment to the Executive Committee

Details of all options exercised and other share-related transactions of Executive Committee or Board members can be found on **www.fsma.be**.

# Executive Committee share ownership 2015

Name	Shares owned at 31/12/2014	Shares owned at 31/12/2015
Marc Grynberg	158,800	240,500
Stephan Csoma	3,500	7,200
Denis Goffaux	10,500	12,700
Géraldine Nolens	-	-
Filip Platteeuw	4,500	8,200
Pascal Reymondet	20,750	24,450
Marc Van Sande	12,000	15,700
Total	210,050	308,750

# Board of Directors share ownership 2015

Name	Shares owned at 31/12/2014	Shares owned at 31/12/2015
Thomas Leysen	572,920	573,920
Ian Gallienne	-	
Mark Garrett	-	333
Ines Kolmsee	1,305	1,805
Barbara Kux	500	1,000
Eric Meurice	-	333
Jonathan Oppenheimer	1400	1,900
Rudi Thomaes	1,705	2,205
Total	577,830	581,496

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# **Contractual relationships**

# Contract between Umicore and Marc Grynberg, Chief Executive Officer

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 as to 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 twelve 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.

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# G15 Changes to Remuneration since the end of 2015

#### Non-executive directors' remuneration

At the request of the Nomination & Remuneration Committee, Umicore conducted in end 2015 a survey of director's fees of Umicore against those of quoted companies on the BEL 20 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 of 3 February 2016. The Nomination & Remuneration Committee concluded that Umicore remains reasonably positioned against the benchmarks and therefore recommended to the Board not to change the fees, but to re-assess the fee structure next year.

The Board of Directors of 4 February 2016 followed this recommendation.

#### **CEO's remuneration**

On 3 February 2016 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 BEL 20 index companies.

On proposal of the Nomination & Remuneration Committee, the Board of Directors of 4 February 2016 decided to leave the fixed gross remuneration of the CEO unchanged and to increase the number of Umicore shares granted from 4,400 to 5,200.

#### **Executive Committee Members' remuneration**

The Nomination & Remuneration Committee of 3 February 2016 reviewed the remuneration of the Executive Committee members. On proposal of the Nomination & Remuneration Committee and taking into account that no salary increase was granted in 2015, the Board of Directors of 4 February 2016 decided to increase slightly the annual fixed remuneration of the Executive Committee members.

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# Risk management and internal control framework

# G16 Risk management

Taking calculated risks is an integral part of the development of any company. Umicore's Board of Directors is ultimately responsible for assessing the risk profile of the Company within the context of the Company strategy and external factors such as market conditions, competitor positioning, technology developments etc and ensuring that adequate processes are in place to manage these risks. Umicore's management is tasked with successfully exploiting business opportunities whilst at the same time limiting possible business losses. In order to achieve this, Umicore operates a comprehensive risk management system. The aim of this system is to enable the Company to identify risks in a proactive and dynamic way and to manage or mitigate these identified risks to an acceptable level wherever this is possible. Internal control mechanisms exist throughout Umicore to provide management with reasonable assurance of the Company's ability to achieve its objectives. These controls cover the effectiveness and efficiency of operations, the reliability of financial processes and reporting, the compliance with laws and regulations, and provide for the mitigation of errors and fraud risks.

# 16.1 Risk management process

Each of Umicore's business units operates in an environment which carries specific growth expectations and differing degrees of market and technological uncertainty. Therefore, the primary source of risk identification lies with the business units themselves.

The first step in the risk management process is to enable and channel the identification of the various material risks. Umicore has established a business risk assessment process to be undertaken by each business unit and corporate department. The process requires that all units carry out a risk scan in order to identify all significant risks (financial and non-financial) that might affect the ability of the business unit to meet its objectives as set out in its strategic plans. The process then requires that each of these risks be described in detail in a risk card. Besides the assessment of potential impact and likelihood, the risk card also contains information on the status of any management action or mitigation plan and the ownership thereof.

These risk cards are then fed back to the member of the Executive Committee responsible for that peculiar business area. A consolidated review takes place at the level of the Executive Committee, the outcome of which is presented to the Audit Committee and to the Board of Directors. The Audit Committee, on behalf of the Board of Directors, carries out an annual review of the Company's internal control and risk management systems and looks into specific aspects of internal control and risk management on an on-going basis.

Each business unit and corporate department is responsible for the mitigation of its own risks. The Executive Committee intervenes in cases where managing a certain risk is beyond the capacities of a particular business unit. The Executive Committee and the Chief Executive Officer are also responsible in a broader context for identifying and dealing with those risks that affect the broader group such as strategic positioning, funding or macroeconomic risks. A specific monitoring role is given to Umicore Internal Audit department in order to provide oversight for the risk management process.

# 16.2 Internal control system

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" (<u>http://www.umicore.com/en/vision/values/</u>) 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-organizational 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 annual self-assessments to be signed off by the senior management. The outcome is reported to the Executive Committee and to the Audit Committee of the Board of Directors. Up till 2014 the control entities (in average 130 entities) aimed at reaching the established compliance threshold for each control activity. The Internal Audit department reviews the compliance assessments during its missions.

During 2015, the self-assessment process has been redesigned with the purpose to move from a judgemental to an objective methodology by using questionnaires. The first tests of the new self-assessment occurred successfully towards the end of 2015. In parallel the requirements are being reedited in order to simplify and to bring even more focus on segregation of incompatible tasks.

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# G17 Risk categorization

Umicore faces risks that in broad terms can be categorized as follows:

#### Strategic:

including risks related to macro-economic and financial conditions, technological changes, corporate reputation, political and legislative environment.

**Operational:** including risks related to changing customer demand, supply of raw materials, distribution of products, credit, production, labour relations, human resources, IT infrastructure, occupational health and safety, emission control, impact of current or past activities on the environment, product safety, asset and data security, disaster recovery.

Financial: including risks related to treasury, tax, forecasting and budgeting, accuracy and timeliness of reporting, compliance with accounting standards, metal price and currency fluctuation, hedging.

Most industrial companies would normally expect to face a combination of the risks listed above. It is not the intention to provide exhaustive details on each risk posed to the Company in this report. However, the most noteworthy strategic and operational risks either in their relevance to Umicore and its strategic goals or in the Company's way of dealing with them have been highlighted below. Financial risks are discussed in greater detail in note F3 to the Consolidated Financial Statements.

# G18 Risk descriptions

#### 18.1 Strategic and operational risks

#### 18.1.1 Market risk

Umicore has a diverse portfolio of activities serving a number of different market segments and in most of its business has a truly global presence. No one end-user market segment or industry accounts for more than 50% of Umicore's sales. In terms of overall exposure the main end markets served by Umicore are automotive, consumer electronics and construction. Umicore's business model also focuses on sourcing secondary or end-of-life materials for recycling. In many instances the availability of these materials is dependent on the levels of activity in specific industries or at specific customers where Umicore provides closed-loop recycling services. A diverse portfolio and wide geographical presence help to mitigate the risk of over-exposure to any one particular market.

**Comments on 2015:** Overall conditions for most of the product businesses improved in 2015. Strong growth in Catalysis and Energy & Surface Technologies more than offset the impact of lower metal prices on the recycling activities. The revenue growth, which was in part driven by the ramp-up of recent growth investments, was the main factor behind the REBIT growth of 21%.

## 18.1.2 Technology risk

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. In order to manage this risk and to enhance the effectiveness of technology screening and implementation processes Umicore has implemented a Group-wide Technology Innovation Management process and carries out technology reviews at Executive Committee level every year. All business units are also expected to carry out an annual technology review. The purpose of these technology reviews is to verify the suitability, potential and risks of those technologies that are screened and pursued and to ensure that they are in line with Umicore's strategic vision. In 2015, Umicore established an Innovation Excellence Board (IEB) composed of senior R&D management in the group. The IEB identified specific self-assessment tools aimed at improving R&D efficiency and clarifying technology roadmaps.. This system is primarily based on a self-assessment tool for the business units and Group R&D.

In terms of organization Umicore's R&D efforts comprise initiatives at both Group and business unit level. The position of Chief Technology Officer (CTO) was created in 2005 with the aim of stimulating the various R&D efforts through the Group, ensuring the alignment of the R&D roadmap with strategic priorities and achieving a balance between current technology needs and longer-term opportunities. Five R&D platforms provide a framework for those elements that have a high degree of relevance across the Group namely Functional Materials, Recycling & Extraction Technology, Expert Services, Analytical Competence Centre and Support Functions. Efforts are also made to promote best practice in knowledge management, information sharing, training and networking throughout the R&D community at Umicore.

To the greatest extent possible, the financial support for the Group's R&D efforts is maintained irrespective of short-term fluctuations in the financial performance of the Group. With regard to intellectual property (IP) risk, a Group IP committee co-ordinates the protection of IP at Group level and promotes best practice in this regard at the level of the business units, which have their own IP committees.

**Comments on 2015:** In 2015 the Executive Committee undertook four dedicated technology reviews compared to five reviews in 2015. These reviews focus on the technology developments that will be key to achieving Horizon 2020 growth ambitions and cover product and process developments but also some support functions and the management of innovation at group level.

# 18.1.3 Supply risk

Umicore is reliant on supplies of certain metals or metals-containing raw materials in order to manufacture its products. Some of these raw materials are comparatively rare. In order to mitigate the risk of supplies becoming difficult to source Umicore enters into longer-term contracts with its suppliers wherever possible. In some cases the Company holds strategic reserve stocks of certain key raw materials. The Company also attempts to source its materials from a geographically diverse range of locations. Umicore's focus on recycling also means that its supply needs are only partially dependent on supplies of virgin material from mines – a significant proportion of the Company's feed coming from secondary industrial sources or end-of-life materials. Where possible Umicore seeks to partner with customers in a "closed-loop" business model thereby integrating sales and the recycling of the customer's residues in one package. Umicore has developed a Sustainable Procurement Charter that has been designed to drive further improvements in the Company's approach to sustainable procurement and is being rolled out towards Umicore's suppliers.

**Comments on 2015:** Umicore demonstrated continued compliance with the Dodd Frank Act in the US. While Umicore does not source conflict minerals and is not itself subject to the Dodd Frank Act, the Company is proactively addressing the issue with a number of its customers and suppliers. In Precious Metals Refining the Hoboken and Guarulhos facilities were awarded the conflict-free smelter certification by the London Bullion Market Association (LBMA) following an audit of processes and supply streams. The Jewellery & Industrial Metals operations in Pforzheim, Vienna and Bangkok are certified as part of the Responsible Jewellery Council's (RJC) Chain of Custody programme. For more information see p. 31. To access Umicore's conflict minerals policy see <a href="http://www.umicore.com/en/media/topics-of-interest/conflict-minerals/">http://www.umicore.com/en/media/topics-of-interest/conflict-minerals/</a>. For general comments on the progress in implementing Umicore's Sustainable Procurement Charter please see page 30-31 and note S8.

#### 18.1.4 Substitution risk

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 to integrate in their products should those of Umicore not provide this optimum balance. The risk is especially present in those businesses producing materials containing expensive metals (especially those with historically volatile pricing characteristics). Umicore actively seeks to pre-empt this search for substitute materials by developing such substitutes itself using less costly materials with lower pricing volatility and where possible without impacting the performance provided for the customer's product.

Comments on 2015: No specific developments took place with regards to substitution risk during 2015.

#### 18.1.5 Regulatory risk

Like all companies, Umicore is exposed to the evolution of the regulatory environment in the countries or regions within which it does business. It should be noted that Umicore's businesses stand to benefit from certain regulatory trends, notably those regarding more stringent emission controls for vehicles and enforced recycling of end-of-life products such as electronic goods.

However, some environmental legislation does present operational challenges. The REACH Directive came into force in the European Union in June 2007 and it introduced the need for new operational procedures regarding the registration, evaluation and authorization of chemical substances. Umicore has created an operational network of REACH managers from all of its business units, coordinated by a corporate REACH implementation manager.

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.

While the regulatory landscape may shift in the future, only a few of our substances feature today on the Candidate list for potential REACH authorization. In total, the products sold that contain these substances account for less than 0.5% of Umicore's revenues. 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.

**Comments on 2015:** As part of regular maintenance, about 20 REACH dossiers have been updated in 2015 with new information on composition, uses, Chemical Safety Report. Four of them were updated in line with a request of ECHA, including additional study results. Also 6 new registrations were submitted.

#### 18.2 Financial risk

As indicated above, Umicore has implemented a specific series of Minimum Internal Control Requirements to mitigate financial risks. The 12 specific areas covered by MICR are: Internal Control Environment, Financial Closing & Reporting, Fixed Assets, Procure-To-Pay, Order-To-Cash, Inventory Management, Hedging, Treasury, Tax, Information Systems Management, Human Resources, Travel & Entertainment. An internal guide – the Umicore Financial Reporting Standard – provides the framework for common understanding of Umicore's accounting policies, application of IFRS, and general reporting practices. Below three of the most salient financial risks have been summarized. A full description of pure financial risks and their management can be found in note F3 to Consolidated Financial Statements.

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#### 18.2.1 Debt and credit risk

Umicore aims to safeguard the business through sound financial management and by maintaining a strong balance sheet. Although there is no fixed target regarding debt levels the Company aims to maintain an investment grade status at all times. We also seek to maintain a healthy balance between short term and longer term debt and between debt secured at fixed and floating interest rates. Umicore has a monitoring process to screen banks for counterparty risk. Umicore is exposed to the risk of non-payment from any counterparty in relation to sales of goods or other commercial operations. Umicore manages this risk through application of a credit risk policy. Credit insurance is often used to reduce the overall level of risk but in certain businesses no insurance is used. This is primarily in those businesses with a significant level of customer concentration or those with a specific and close relationship with their customers and where the cost of insurance is not deemed justifiable in proportion to the risks involved. Business managers are also encouraged to pay particular attention to the evolution of trade receivables. This is done in the broader context of working capital management and Group efforts to reduce capital employed. A major part of the variable pay of managers is linked to return on capital employed (ROCE).

#### 18.2.2 Currency risk

Umicore is exposed to structural, transactional and translational currency risks. Structural currency risk exists where the Company generates more revenues in one currency compared to the costs incurred in that currency. The biggest sensitivity of this nature exists for the US dollar. Transactional currency exposure is hedged systematically while the Company sometimes engages in structural currency hedges that help secure future cash flows.

Umicore also faces translational currency risks where it consolidates the earnings of subsidiaries not using the Euro as their reporting currency. While Umicore does not systematically hedge its translational currency exposures, it may enter into ad hoc translational hedges.

#### 18.2.3 Metal price risk

Umicore is exposed to risks relating to the prices of the metals which it processes or recycles. The structural metals-related price risks relate mainly to the impact that metal prices have on surplus metals recovered from materials supplied for treatment. Transactional metal price risks are linked to the 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"). A risk also exists in the Company's permanently tied up metal inventories. This risk is related to the market metal price moving below the carrying value of these inventories. Transactional metal price exposure is hedged systematically to the maximum extent possible. In addition, the Company sometimes engages in structural metal price hedges that help secure future cash flows.

#### 18.2.4 Taxation

The tax charge included in the financial statements is the Group's best estimate of its tax. There is a degree of uncertainty regarding the final tax liability for the period until completion of tax audits by the authorities. 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 financial results.

Comments on 2015: No material changes took place with regards to the nature of the financial risks faced by Umicore during 2015.

# Stakeholder engagement

Umicore is a publicly listed company. As such, it interacts with a number of parties who have an interest in the way in which the company conducts business. The relationship that the company is able to foster with these parties or stakeholders has a direct impact on the company's success.

Stakeholder engagement at Umicore is, in the first instance, based on a localized approach whereby all sites are required to identify their respective stakeholders and to establish suitable ways of engaging with local stakeholders. This approach was formalized in the Vision 2015 objective relating to local communities. In many instances, such as the dialogue with customers and suppliers, the stakeholder relationships are primarily managed by the business units themselves, in line with Umicore's de-centralized approach to managing its businesses.

At Group level the Vision 2015 objectives were developed partly from the lessons learned from an external sounding board in 2009 to review Umicore's sustainability approach and reporting. This sounding board complemented an internal exercise conducted with representatives of business units, shared operational functions and corporate departments. To find out more about Umicore's stakeholder approach to its Horizon 2020 strategy please see page 34-37.

Umicore is an active participant in various industry associations through which it engages with policy makers in order to contribute to the 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 Umicore's senior management are often called upon or volunteer to participate in public fora to discuss Umicore's business performance and sustainable development approach. Such events provide the opportunity to interact with various groups including business leaders, academics and civil society.

Highlighted below are Umicore's main stakeholder groups. These have been categorized in broad terms using generic stakeholder categories that apply to most industrial organizations. Also shown are the nature of the transactions that occur and a brief description of how the dialogue between Umicore and the stakeholders operates.

# **G19 Suppliers**

# **Umicore provides: revenues**

#### Suppliers provide: raw materials, transportation, energy and other goods and services

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 more than 10,000 suppliers world-wide. These suppliers benefit from Umicore's presence as a customer; during 2015 Umicore paid these suppliers some  $\in$  8.7 billion (including the metal content of raw materials).

Umicore is engaged in constant dialogue with its suppliers, primarily to define technical specifications as well as 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 primarily responsible for the purchases of raw materials while the corporate Purchasing and Transportation department is involved in ensuring the Group's transportation, energy and other provisioning needs are met.

Umicore's approach is shaped by its Sustainable Procurement Charter (<u>http://www.umicore.com/en/sustainable-procurement-charter/</u>). This charter forms the basis for the Vision 2015 objective on sustainable procurement. For information on the level of achievement on this objective please see page 30-32 of this report.

# **G20 Customers**

# Umicore provides: materials and services

#### **Customers provide: revenues**

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

Umicore has an international customer base, with 49% of 2015 revenues being generated outside Europe.

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Umicore's customer base tends to be other industrial companies who use Umicore's materials to make products. Only in a very few instances does Umicore make products that are sold directly to the public. The business units are responsible for providing support to their customers in order to better understand the hazards and risks of any products that are either in the market or in development. Interaction with customers is an on-going process and is managed by the business units. All business units have a customer feedback process where they are able to gauge periodically 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.

# **G21 Employees**

#### Umicore provides: remuneration, training and learning opportunities

#### Employees provide: skills, competences & productivity

Umicore employs some 10,000 people around the world. The company invests significant resources in ensuring its status as an employer of choice in all the regions in which it operates. During 2015 Umicore paid a total of  $\in$  516 million in the form of salaries and other benefits to the employees of its fully consolidated companies. Social security payments totalled  $\in$  96 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 Umicore's Code of Conduct. Open dialogue is promoted between the company and its employees. This dialogue includes a three-yearly employee opinion survey.

Umicore respects the principle of collective bargaining wherever it is requested. While such practice is commonplace in Europe, in some other locations collective bargaining mechanisms and trade unions are less common or face local legal restrictions. Umicore has signed a sustainable development agreement with the international union IndustriALL on the global Group-wide 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 sees to the implementation of the agreement.

Supplementary channels of company-wide communication include the Group intranet, company and business unit newsletters and a world-wide in-house magazine "umicore.link" published in six languages. 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.

# **G22 Investors and funders**

#### Umicore provides: return on investment

#### Investors provide: capital and funds

Umicore's investor base is largely diversified. At the end of 2015 the company's shareholders were primarily situated in Europe and North America. For the latest information on the shareholder base please see <u>http://www.umicore.com/en/investors/</u>.

Umicore strives to provide timely and accurate company information to the investment community. These communication efforts include management roadshows and site visits, conferences, investor fairs for individual investors, webcasts and conference calls. During 2015 20 brokerage firms published equity research notes on Umicore.

Banks make up the vast majority of the company's creditors and debt investors. Umicore has 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 the banking community.

# **G23 Society**

# Umicore provides: wealth and innovative products and processes

# Society provides: licence to operate

Through employment Umicore participates in the generation of wealth in the areas in which it operates. Although wealth generation is an obvious benefit, the manner 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. In order to maintain this licence, Umicore does the utmost to operate in a way which promotes sustainable development. This goes beyond operating within the legally defined boundaries set for all companies. Umicore sets its own standards which are applicable across the Group and which frequently surpass the demands of legislation in many areas where the company operates. In addition to this commitment to sound operating practices, Umicore also strives to develop materials which will enhance peoples' quality of life.

Contact with the communities in which Umicore operates is the most direct way in which the company can interact with society. Open and transparent dialogue with such communities is an integral part of Umicore's stakeholder engagement and makes up one of the Vision 2015 objectives. Certain civil society groups (non-governmental organizations) also periodically declare a stake in Umicore's operations and the way the company does its business. Umicore welcomes such interest and attempts to engage with such groups in an open and constructive manner.

Umicore makes voluntary contribution at site and Group level to a range of charitable causes in line with an internal policy and guidelines. Umicore manages Group-level engagement efforts through a Group Donations Committee which has the mandate of engaging with civil society groups and determining the extent of partnerships at Group level. For information on these initiatives in 2015 please see pages 32-33 of this report.

# G24 Associate and joint venture companies

# Umicore provides: investment and guidance

# Associate and joint venture companies provide: contribution to Umicore profits, technological complementarities, market access

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

Umicore is rigorous in safeguarding any intellectual property that it shares with associate or joint venture partners. A full list of associate and joint venture companies can be found on page 64 of this report.

# G25 Public sector and authorities

# **Umicore provides: taxes**

# Public sector and authorities provide: services and formal licence to operate

Umicore paid a total of  $\in$  61 million in taxes as a result of its operations in 2015. Umicore and its employees also contributed a total of some  $\in$  96 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 organizations. A total of some  $\in$  7.4 million of grants were awarded in 2015 relating primarily to planned R&D projects. Previously-awarded grants contributed for some  $\in$  7.2 million to the EBIT in 2015. The company has a policy of not making donations to political parties or organizations.

In 2015 Umicore continued its efforts to inform public policy and foster contacts with public authorities worldwide. These efforts are co-ordinated through the Government Affairs department and focus primarily on Europe and North America, as well as on China. Umicore aims to raise the profile and understanding of Umicore's technologies, and to add its voice to the discourse about materials-related issues. In Europe this has centred on three main topics: resource efficiency, with policies dealing with waste and raw materials as well as particular emphasis on the ongoing developments for a Circular Economy

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in the EU; advanced materials as a key enabling technology for low carbon technologies; material technologies for the purification of exhaust gases from automobiles and trucks with combustion engines. Umicore's initiatives also encompass gaining 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.

In several cases Umicore experts are invited as members of working groups and panels initiated by European or national authorities. In this respect we are part of, among others, the European Innovation Partnership for Raw Materials, the High Level Group on Key Enabling Technologies and the ERA-MIN network on industrial handling of raw materials for European Industries. Additionally, Umicore is part of the more than 100 partners which builds the Knowledge and Innovation Community on Raw Materials, a consortium to address the accessibility, availability and efficient use of raw materials in Europe.

When specific issues arise which are of interest to Umicore the company usually communicates its position through the industry groups to which it is affiliated. The company is mindful of the sensitivity of taking positions on issues of public interest. With this in mind Umicore has developed Group-wide guidelines regarding how this should be done in a responsible way (these can be downloaded on the Group website). The main organizations of which Umicore is currently member (both at corporate and business unit level) are listed below:

## Corporate

- European Round Table of Industrialists (ERT)
- Eurometaux (European Non-Ferrous Metals Association)
- European Technology Platform for Advanced Engineering Materials and Technologies (EuMaT)
- TransAtlantic Business Council
- Agoria (Belgian multi-sector federation for the technology industry)

# Catalysis

- Emission control associations at regional and national level (US, SA, Brazil, China, European Union) see **www.automotivecatalysts.umicore.com/en/links/** for a selection of links
- German Chemical Federation (VCI)

#### **Energy & Surface Technologies**

- Cobalt Development Institute
- Nickel Institute
- Energy Materials Industrial Research Initiative (EMIRI)
- European Association for Battery, Hybrid and Fuel Cell Electric Vehicles (AVERE)

# Recycling

- European Electronics Recyclers Association (EERA)
- European Battery Recycling Association (EBRA)
- International Association of Portable Rechargeable Batteries (RECHARGE)
- International Platinum Group Metals Association
- International Precious Metals Institute
- European Precious Metals Federation

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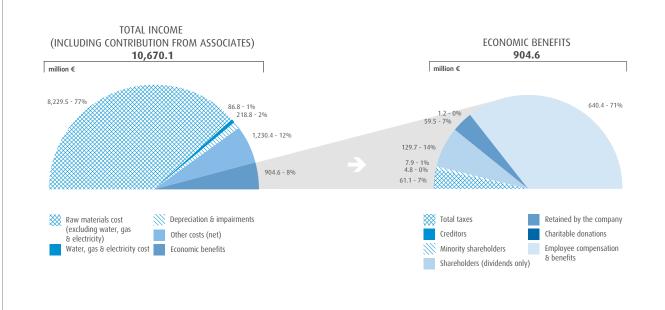
Umicore

# G26 Distribution of economic benefits

Of Umicore's total income, the most significant portion was used to secure the metal component of raw materials (the cost of which is passed through to the customer). After subtracting other raw materials costs, energy-related costs and depreciation, the remaining economic benefits available for distribution stood at  $\in$  905 million.

The biggest portion ( $\notin$  640 million) was distributed to employees in the form of salaries and other benefits. The bulk of employee benefits were in the form of salaries, with the balance being in the form of national insurance contributions, pensions and other benefits. Net interest to creditors amounted to  $\notin$  5 million, while taxes to the governments and authorities in the places where it operates, totalled  $\notin$  61 million. The earnings attributed to minority shareholders were  $\notin$  8 million.

Subject to approval by shareholders at the AGM in April 2016, a gross dividend of  $\notin$  1.20 per share will be distributed for the year 2015, resulting in a total provisional pay-out of  $\notin$  130 million (using the number of shares outstanding at the end of 2015). Of this figure a portion was already paid out in September 2015 in the form of an interim dividend, and the remainder will be paid out in 2016. This is in line with Umicore's policy of paying a stable or gradually increasing dividend. Umicore bought back 920,000 of its own shares in 2015 for a total sum of  $\notin$  33 million. Although this is not included in the distribution charts it can also be considered as an indirect return to shareholders. Umicore spent some  $\notin$  1.2 million on charitable donations.



# **Board of Directors**









#### Thomas Leysen, 55

Chairman, Non-Executive Director

Thomas Leysen became Chairman of Umicore in November 2008 after having served as Chief Executive Officer of Umicore since 2000. Since October 2011 he is Chairman of the board of KBC Group, a banking and insurance group. Thomas is also Chairman of Corelio, a Belgian media company. He also serves as Chairman of the King Baudouin Foundation.

#### Director since:

10 May 2000 Expiry of mandate: Ordinary General Meeting of 2018 Chairman since: 19 November 2008 Chairman of the Nomination & Remuneration Committee since: 19 November 2008

#### Marc Grynberg, 50

Chief Executive Officer, Executive Director

Marc Grynberg was appointed Chief Executive Officer of Umicore in November 2008. He was head of the Group's Automotive Catalysts business unit from 2006 to 2008 and served as Umicore's CFO from 2000 until 2006. He joined Umicore in 1996 as Group Controller. Marc holds a Commercial Engineering degree from the University of Brussels (Ecole de Commerce Solvay) and, prior to joining Umicore, worked for DuPont de Nemours in Brussels and Geneva. Director since: 19 November 2008 Expiry of mandate: Ordinary General Meeting of 2018 Chief Executive Officer since: 19 November 2008

#### Ines Kolmsee, 45 Independent,

Non-Executive Director

Ines Kolmsee holds several degrees in engineering (TU Berlin, Germany and Ecole des Mines de Saint-Etienne, France) as well as an MBA degree (Business School INSEAD - France/Singapore). From 2004 to 2014 she was Chief Executive Officer of SKW Stahl-Metallurgie Group, a specialty chemicals company with operations worldwide. After working as an entrepreneur in the rural electrification sector, she joined EWE AG, a large German utility company as CTO as of May 2015. She is also a member of the Supervisory Board of Suez Environnement S.A. In the past she occupied different positions, including as Chief Financial Officer at Argues Industries AG.

#### Director since:

26 April 2011 Expiry of mandate: Ordinary General Meeting of 2017 Member of the Audit Committee since: 26 April 2011

Chairman of the Audit Committee since: 28 April 2015

#### Barbara Kux, 59 Independent,

Non-Executive Director

Barbara Kux holds an MBA with Distinction from INSEAD. She serves as a Member of the Board of Directors of Engle and Total in France, as well as of Firmenich and Pargesa Holding in Switzerland. In addition she is a Member of the Supervisory Board of Henkel, Germany. She was a member of the Managing Board at Siemens AG with the responsibility for a major improvement in supply chain management and sustainability. Prior to that, she held management positions in leading global companies and was a Management Consultant at McKinsey.

#### **Director since:**

1 January 2014 Expiry of mandate: Ordinary General Meeting of 2017 Member of the Nomination and Remuneration Committee since: 1 January 2014

# Rudi Thomaes, 63

Independent, Non-Executive Director

Rudi Thomaes, of Belgian nationality, studied law at the University of Antwerp. From 2004 to 2012 he was the Chief Executive Officer of the Belgian employers' federation (FEB-VBO) and Regent of the National Bank of Belgium. He previously served as Managing Director and Chairman of the management committee of Alcatel Bell NV. He is currently Chairman of the Belgian Chapter of the International Chamber of Commerce, Chairman of Restore NV, an Antwerp based energy technology start-up company, and independent director at Armonea NV.

# **Director since:** 24 April 2012

Expiry of mandate: Ordinary General Meeting of 2018 Member of the Audit Committee since: 30 April 2013 Member of the Nomination and Remuneration Committee since: 24 April 2012

#### Eric Meurice, 59

Independent, Non-Executive Director

Eric Meurice, of French nationality, was formerly President and Chief Executive Officer of Dutch-based ASML Holding, a major provider of advanced technology systems for the semiconductor industry. Under his stewardship between 2004 and 2013, ASML achieved a very impressive growth in earnings and shareholder returns and became recognized as an industry leader in innovation. Eric was previously Executive Vice President in charge of Thomson Multimedia TV Division and prior to that he held senior positions in several technology groups such as Intel, ITT and Dell Computer.



He is a non-executive director of NXP Semiconductors and of IPG Photonics. He holds Master's degrees in Economics and Mechanical Engineering from the Sorbonne and Ecole Centrale de Paris (France) respectively and an MBA from Stanford (US).

#### Director since: 28 April 2015 Expiry of mandate: Ordinary General Meeting of 2018

#### Mark Garrett, 53

Independent, Non-Executive Director

Mark Garrett, of dual Australian / Swiss nationality, graduated in Economics and Systems Analysis from the University of Melbourne and the Royal Melbourne Institute of Technology respectively. He has enjoyed a long career in the chemical industry working with wellknown companies such as Ciba-Geigy and DuPont. Since 2007, Mark is CEO and Chairman of the Borealis Executive Board. Borealis is an Austrian based leading provider of innovative solutions in the field of polyolefins, base chemicals and fertilizers. He is also a member of the Board of Directors / Supervisory Board of Abu Dhabi Polymers Company Ltd. (Borouge ADP, a joint venture between Borealis and the Abu Dhabi National Oil Company), NOVA Chemicals and Webster University.

#### Director since:

28 April 2015 Expiry of mandate: Ordinary General Meeting of 2018 Member of the Audit Committee since: 28 April 2015

#### Jonathan Oppenheimer, 46 Non-Executive Director

Jonathan Oppenheimer has responsibility for various Oppenheimer Family investment activities across different asset classes. Within the group he chairs Tana Africa Capital, an Africa-focused joint venture with Temasek, and sits on a number of other boards. He is primarily focused on the direct investment activities of the group in Africa. Jonathan was an Executive Director of De Beers S.A. from 2006- 2012, working in a variety of roles.

# Director since:

5 September 2001 Expiry of mandate: Ordinary General Meeting of 2017

## Ian Gallienne, 44

Non-Executive Director

Ian Gallienne, of French nationality, is Managing Director of Groupe Bruxelles Lambert (GBL), Umicore's largest shareholder. He has been a Director of GBL since 2009 and Managing Director since January 2012. Ian began his career in Spain, in 1992, as co-founder of a sales company. From 1995 to

1997, he managed a consulting firm specialising in turning around businesses in France. From 1998 to 2005, he was manager of the private equity funds Rhône Capital LLC in New York and London. In 2005 he founded the private equity funds Ergon Capital Partners in Brussels and was Managing Director of such funds until 2012. Ian Gallienne is a non-executive director at Lafarge, Imerys, Pernod Ricard and SGS. He has a degree in Management and Administration from the Ecole Supérieure des Dirigeants d'Entreprises (E.S.D.E.) in Paris and an MBA from INSEAD in Fontainebleau.

#### Director since: 28 April 2015 Expiry of mandate: Ordinary General Meeting of 2018

Karel Vinck Honorary Chairman



# **Executive Committee**

1. Marc Grynberg, 50 Chief Executive Officer

Marc Grynberg was appointed Chief Executive Officer of Umicore in November 2008. He was head of the Group's Automotive Catalysts business unit from 2006 to 2008 and served as Umicore's CFO from 2000 until 2006. He joined Umicore in 1996 as Group Controller. Marc holds a Commercial Engineering degree from the University of Brussels (Ecole de Commerce Solvay) and, prior to joining Umicore, worked for DuPont de Nemours in Brussels and Geneva.

#### 2. Filip Platteeuw, 43 Chief Financial Officer

Filip Platteeuw joined Umicore in 2004 and was instrumental in the Cumerio spin-off in 2005. He then led the project team for the creation of Nyrstar and its successful IPO in 2007. He became Vice President of Corporate Development in 2010. He took up the position of Chief Financial Officer (CFO) in November 2012. Filip holds a master's degree in Applied Economics from the University of Ghent and a master's degree in Financial Management

from the Vlerick Management School. Filip has extensive experience in investment banking, corporate banking and equity research with KBC Bank. He is also responsible for Corporate Development, InfoDoc and Procurement & Transportation.



## 3. Denis Goffaux, 48

Chief Technology Officer

Denis Goffaux holds a degree in mining engineering from the University of Liège. He joined Umicore Research in 1995 and has lived and worked in Belgium, Chile, China and Korea. He was head of the Rechargeable Battery Materials business line and successfully developed the business into a world leader in cathode materials for lithium ion rechargeable batteries. In his capacity as Country Manager Japan, Denis Goffaux laid strong foundations for Umicore to grow its industrial presence and commercial activities in Japan. He was appointed to his present post in July 2010. Besides his position as Chief Technology Officer, he is responsible for the Precious Metals Refining business (part of Recycling).

#### 4. Pascal Reymondet, 56

Executive Vice-President Catalysis

Pascal Reymondet holds an MSc from Stanford University and an Engineering degree from the Ecole Centrale in Paris. He held different management positions within the Degussa group including management of the Port Elizabeth and Burlington automotive catalyst plants. He joined the Umicore Executive Committee in 2003 to be in charge of the Precious Metals Products group. In September 2007, he was appointed to head the Zinc Specialties business group. In June 2010 he assumed responsibility for the Performance Materials business group. Since November 2012 he is responsible for the business group Catalysis.

#### 5. Marc Van Sande, 63

Executive Vice-President Energy & Surface Technologies

Marc Van Sande holds a PhD in Physics from the University of Antwerp as well as an MBA. He joined Umicore in 1980, and held several positions in research, marketing and production. In 1993 he was appointed Vice-President of the Electro-Optic Materials business unit and he joined the Executive Committee as Executive Vice-President of Advanced Materials in 1999. He assumed the role of Chief Technology Officer between 2005 and 2010 after which he took the helm of the Energy & Surface Technologies business group (previously Energy Materials).

### 6. Stephan Csoma, 51

Executive Vice-President Recycling

Stephan Csoma joined Umicore in 1992. He holds diplomas in economics from the UCL University of Louvain and Chinese/Mandarin from Fudan University in Shanghai. He set up Umicore's first industrial operations in China in the mid-1990s. Between 2001 and 2005, he led the Zinc Chemicals business unit and from 2005 to 2009 he was SVP for Umicore South America. Between 2009 and 2012 he was SVP for the newly-established Government Affairs. He joined the Executive Committee in 2012 as EVP of the former Performance Materials business group. He assumed his current responsibilities in 2015 with continued oversight for Government Affairs and Umicore Marketing Services.

## 7. Géraldine Nolens, 44

Executive Vice-President

Géraldine Nolens joined Umicore in 2009. She studied law in Belgium and Germany before obtaining her LL.M at the University of Chicago. 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. Her career has involved periods working and living in the US, Germany, Italy and Belgium. She joined the Executive Committee in 2015. She is Umicore's Chief Counsel and has responsibility for Environment Health & Safety, Corporate Security and Internal Audit.

## Assurance reports



STATUTORY AUDITOR'S REPORT TO THE GENERAL SHAREHOLDERS' MEETING ON THE CONSOLIDATED ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2015

In accordance with the legal requirements, we report to you on the performance of our mandate of statutory auditor. This report includes our opinion on the consolidated financial statements, as well as the required additional statement. The consolidated financial statements comprise the consolidated balance sheet as a 31 December 2015, the consolidated income statement, the consolidated statements of compressive income, the consolidated statement of changes in equity and the consolidated statement of cash flow for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

#### Report on the consolidated financial statements - Unqualified opinion

We have audited the consolidated financial statements of Unsicore ("the Company") and its subsidiaries (jointly "the Group"), prepared in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium. The total of the consolidated balance sheet amounts to EUR (000) 4.030.075 and the consolidated income statement shows a profit for the year (Group share) of EUR (000) 169,225

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

The board of directors is responsible for the preparation and fair presentation of these consolidated financial statements 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 financial statements that are free from material misstatement, whether due to fraud or error.

Statutory auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our mulit. We conducted our sudit in accordance with International Standards on Auditing (ISAs). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the statutory auditor's jodgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, In making those risk assessments, the istatutory auditor considers internal control relevant to the Group's preparation and fair presentation of the coasolidated financial statements 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. An audit also includes evaluating the appropriationess of accounting policies used and the reasonableness of accounting estimates made by the board of directors, as well as evaluating the overall presentation of the consolidated financial statements.

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

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

Ungualified Opinion

In our opinion, the consolidated financial statements set forth on pages 45 to 114 of the Annual Report 2015 give a true and fair view of the Group's net equity and consolidated financial position as at 31 December 2015 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.

#### Report on other legal and regulatory requirements

The board of directors is responsible for the preparation and the content of the annual report on the consolidated financial statements.

In the context of our mandate and in accordance with the Belgian standard which is complementary to the International Standards on Auditing (ISAs) as applicable in Belgium, our responsibility is to verify, in all material respects, compliance with certain legal and regulatory requirements. On this basis, we provide the following additional statement which does not impact our opinion on the consolidated financial statements:

 The directors' report on the consolidated financial statements set forth on pages 1 to 44 and 115 to 190 of the Annual Report 2015 includes the information required by law, is consistent with the consolidated financial statements and does not present any material inconsistencies with the information that we became aware of during the performance of our mandate.

Sint-Stevens-Woluwe, 22 March 2016

The Statutory Auditor PwC Bedrijfsrevisoren BCVBA Represented by

15-

Marc Daelman* Registered Auditor

*Marc Daelman BVBA Board Member, represented by its fixed representative, Marc Daelman

PwC Bedrijfsrevisoren cvba, burgerlijke vennootschap met handelsvorm - PwC Reviseurs d'Entreprises scrl, société civile à forme commerciale - Financial Assurance Services Maatschappelijke zetel/Siège social: Woluwe Garden, Woluwedal 18, B-1932 Sint-Stevens-Woluwe T: +32 (0)2 710 4211, F: +32 (0)2 710 4299, www.pwc.com BTW/TVA BE 0429.501.944 / RPR Brussel - RPM Bruxelles / ING BE43 3101 3811 9501 - BIC BBRUBEBB / BELFIUS BE92 0689 0408 8123 - BIC GKCC BEBB pwc

INDEPENDENT LIMITED ASSURANCE REPORT ON THE ENVIRONMENTAL AND SOCIAL STATEMENTS OF THE ANNUAL REPORT 2015 OF UMICORE AND ITS SUBSIDIARIES

This report has been prepared in accordance with the terms of our engagement contract dated 30 June 2014, whereby we have been engaged to issue an independent limited assurance report in connection with the Environmental and Social Statements as of and for the year ended 31 December 2015 in the accompanying Annual Report 2015 of Umicore and its subsidiaries (the "Report"). Responsibility of Board of Directors

The Board of Directors of Unicore ("the Company") is responsible for the proparation of the information and data in the Environmental and Social Statements set forth in the Report of Unicore and its subsidiaries as set out on pages 121 to 149 ("the Subject Matter Information"), in accordance with the criteria disclosed in the Environmental and Social Statements (the "Criteria").

This responsibility includes the selection and application of appropriate methods for the preparation of the Subject Matter Information, for ensuring the reliability of the underlying information and for the use of assumptions and estimates for individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the responsibility of the Board of Directors includes the design, implementation and maintenance of systems and processes relevant for the preparation of the Subject Matter Information.

#### Auditor's Responsibility

Our responsibility is to express an independent conclusion about the Subject Matter Information set forth in the Report based on the work we have performed. We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information". This standard requires that we comply with ethical requirements and that we plan and perform the engagement to obtain limited assurance as to whether nothing has come to our attention that causes as to believe that the Subject Matter Information is not fairly stated, in all material respects, based on the Criteria.

The objective of a limited-assurance engagement is to perform the procedures we consider necessary to provide us with sufficient appropriate evidence to support the expression of a conclusion in the negative form on the Subject Matter Information. The selection of such procedures depends on our professional judgment, including the assessment of the risks of management's assertion being materially misstated. The scope of our work comprised the following procedures:

- assessing and testing the design and functioning of the systems and processes used for data-gathering, collation, consolidation and validation, including the methods used for calculating and estimating the information and data presented in the Environmental and Social Statements as of and for the year ended 31 December 2025 on pages 121 to 149 of the Annual Report 2015; conducting interviews with responsible officers including site visita;
- inspecting internal and external documents.

We have evaluated the Subject Matter Information against the Criteria. The accuracy and completeness of the Subject Matter Information are subject to inherent limitations given their nature and the methods for determining, calculating or estimating such information. Our Limited Assurance Report should therefore be read in connection with the Criteria.

#### Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA), which is founded on fandamental principles of integrity, objectivity, professional completence and due care, confidentiality and professional behaviour. Our audit firm applies International Standard on Quality Control (USQC) n° 1 and accountingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### Conchusion

Based on our work, as described in this Independent Limited Assurance Report, nothing has come to our attention that causes us to believe that the information and data presented in the Environmental and Social Statements as of and for the year ended 31 December 2015 on pages 121 to 149 of the Annual Report of Uniforce and its subsidiaries is not fairly stated, in all material respects, in accordance with the Criteria.

#### Restriction on Use and Distribution of our Report

Our assurance report has been made in accordance with the terms of our engagement contract. Our report is intended solely for the use of the Company, in connection with their Environmental and Social Statements as of and for the year ended 31 December 2015 and should not be used for any other purpose. We do not accept, or assume responsibility to anyone else, except to the Company for our work, for this report, or for the conclusions that we have reached.

Sint-Stevens-Woluwe, 22 March 2016

PwC Bedrijfsrevisoren bevba Represented by

15

Mare Daelman* Registered auditor

*Marc Daelman BVBA Board Member, represented by its fixed representative, Marc Daelman

PwC Bedrijfsrevisoren cuba, burgerlijke vennootschap met handelsvorm - PwC Reviseurs d'Entreprises scrl, société civile à forme commerciale - Financial Assurance Services

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BTW/TVA BE 0429.501.944 / RPR Brussel - RPM Bruxelles / ING BE43 3101 3811 9501 - BIC BBRUBEBB / BELFIUS BE92 0689 0408 8123 - BIC GKCC BEBB Annual report

Umicore

# Glossary

## **Economic definitions**

### API – active pharmaceutical ingredient

Biologically active substance used in pharmaceutical products.

### Associate

An entity in which Umicore has a significant influence over the financial and operating policies but no control. Typically this is evidenced by an ownership of between 20% and 50%. Associates are accounted for using the equity method.

## Catalysis / catalyst

Catalysis is a chemical process whereby one of the elements used in the reaction process, the catalyst, makes this chemical reaction possible, or speeds up this process, without being consumed in the reaction process, and therefore can be re-used.

## Carboxylate

A carboxylate is a salt of a carboxylic acid.

## Cathode

The cathode is the positive side in a (rechargeable) battery. In the charging phase ions are released from the cathode and migrate to the anode (negative side), thereby storing electricity. In the discharging phase, the ions move back to the cathode, thereby releasing electricity.

## **Charitable donation**

A donation to a not-for-profit organization that is not for the commercial benefit of Umicore. Donations can be in cash or in kind. Political donations are not permitted.

## **Closed loop**

For Umicore a "closed loop" involves taking back secondary materials from customers (eg production residues) or end-of-life materials (eg used mobile phones, automotive catalysts) to recover the metals to be fed back into the economic cycle.

### **Dodd Frank Act**

Full title: Dodd–Frank Wall Street Reform and Consumer Protection Act. The Dodd Frank Act aims to promote the financial stability of the United States by improving accountability and transparency in the financial system.

### Electroplating

Electroplating is a plating process in which metal ions in a solution (electrolyte) are moved by an electric field to coat another material. The process is primarily used for depositing a layer of material to bestow a desired property on that other material.

#### Euro 6

European emission standard for exhaust emissions of new passenger vehicles set for implementation in 2014.

#### Frascati Manual

The Frascati Manual is a document prepared and published by the Organisation for Economic Co-operation and Development that sets forth the methodology for collecting statistics about research and development.

## GDP

Global domestic product (recognized indicator of economic growth).

## HDD - Heavy Duty Diesel

Large diesel vehicles – either onroad, such as trucks and buses, or non-road such as heavy plant and mining equipment or locomotives and agricultural equipment.

#### (H)EV - (Hybrid) Electrified Vehicle

Vehicle (passenger car or other) that runs fully or partially (hybrid) on electricity, rather than on conventional fuel. pHEV is a plug-in hybrid vehicle the battery of which can be charged using external electricity source.

### ITO – Indium Tin Oxide

A transparent conducting oxide used in specific layers for its electrical conductivity and optical transparency. It is used in diverse applications, such as flatscreen displays, photovoltaics and architectural glass.

## Joint venture

A contractual arrangement whereby Umicore and another party undertake an economic activity that is subject to joint control. Joint ventures are accounted for using the equity method.

## LCO – lithium cobaltite

Cathode material used in lithium ion rechargeable batteries, particularly suited for portable electronic applications.

## LDV - Light Duty Vehicle

Primarily passenger cars – using either diesel or gasoline fuel, or other.

## LED - Light Emitting Diode

LEDs are a semiconductor-based light source offering many advantages over traditional incandescent light sources, among which long lifetime and energy efficiency.

## LFP - Lithium iron phosphate

A type of cathode chemistry for lithium ion rechargeable batteries.

## Li-ion – Lithium ion battery

Lithium ion is a technology for rechargeable batteries in which lithium ions move from the positive electrode (the cathode) to the negative electrode (the anode) during the charging phase, thereby storing electricity. In the discharging phase, the lithium ions move back to the cathode, thereby releasing electricity.

## NMC – Lithium (Nickel-Manganese-Cobalt) oxide

Relatively new type of cathode material, which is used in the emerging (H)EV market and also more and more in portable electronic applications.

#### OEM

Original equipment manufacturer. In the automotive industry context it refers to car manufacturers.

## PGM - platinum group metals

Platinum, palladium, rhodium, ruthenium, iridium and osmium (in Umicore's case it refers mainly to the first three).

## Platform (automotive)

A combination of chassis and engine type that is used on one or more models of passenger car, sometimes between different manufacturers.

#### Precursor

Chemical substance that participates in the chemical reaction that produces another compound.

#### **PV - Photovoltaics**

Photovoltaics is a method of generating electrical power by converting solar radiation directly into electricity.

### Substrate

A surface onto which a layer of another substance is applied. In automotive catalysts the substrate is the honeycomb structure, which enhances the surface area, on which the catalytic solution is deposited. In photovoltaics, semiconductors such as germanium are used as substrates, on which the rest of the solar cell layers are deposited.

## **Financial definitions**

#### Average capital employed

For half years: average of capital employed at start and end of the period; For full year: average of the half year averages.

#### **Capital employed**

Total equity (excluding fair value reserves) + net financial debt + provisions for employee benefits – deferred tax assets and liabilities – IAS 39 impact.

#### **Capital expenditure**

Capitalized investments in tangible and intangible assets, excluding capitalized R&D costs.

#### Cash flow before financing

Net cash generated by (used in) operating activities + net cash generated by (used in) investing activities.

#### EBIT

Operating profit (loss) of fully consolidated companies, including income from other financial investments + Group share in net profit (loss) of companies accounted for under equity method.

### EPS

Earnings per share for equity holders.

#### EPS, basic

Net earnings, Group share / average number of outstanding shares.

#### EPS, diluted

Net earnings, Group share / (average number of outstanding shares + number of potential new shares to be issued under the existing stock option plans x dilution impact of the stock option plans).

#### Gearing ratio

Net financial debt / (net financial debt + equity of the Group).

#### IAS 39 effect

Non-cash timing differences in revenue recognition in case of nonapplication of or non-possibility of obtaining IAS hedge accounting to:

a) transactional hedges, which implies that hedged items can no longer be measured at fair value, or

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

c) Derivatives embedded in executory contracts, which implies that the change in fair value on the embedded derivatives must be recognized in the income instatement as opposed to the executory component where the fair value change in the income statement cannot be recognized.

#### Market capitalization

Closing price x total number of outstanding shares.

#### Net financial debt

Non-current financial debt + current financial debt - cash and cash equivalents.

#### Non-recurring EBIT

Includes non-recurring items related 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. Any writedowns on those metal inventories permanently tied up in operations are part of the non-recurring EBIT of the business groups.

#### **Outstanding shares**

Issued shares - treasury shares.

#### **Recurring EBIT**

EBIT - non-recurring EBIT - IAS 39 effect.

#### Recurring EBIT margin

Recurring EBIT of fully consolidated companies / revenues excluding metals.

#### **Recurring EBITDA**

Recurring EBIT + recurring depreciation and amortization of fully consolidated companies.

#### Recurring effective tax rate

Recurring tax charge / recurring profit (loss) before income tax of fully consolidated companies.

## **Recurring EPS**

Recurring net earnings, Group share / average number of (issued shares – treasury shares).

## Return on capital employed (ROCE)

Recurring EBIT / average capital employed.

#### Revenues (excluding metal)

All revenue elements - value of purchased metals.

#### Revenues by geography

Group revenues attributable to a geographic destination, including associates and joint ventures revenues adjusted for Umicore's shareholding. This means that for recycling activities the revenue component is based on the location of the suppliers of raw materials, as determined by the refining charges.

#### **R&D** expenditure

Net research and development charges of fully consolidated activities (ie excluding R&D income such as research grants). Includes capitalized costs.

The above financial definitions relate to non-IFRS performance indicators except for EPS, basic and EPS, diluted. Umicore

# Social, environmental and other definitions

## APS (Assessment of Product (and services) Sustainability)

This Umicore specific methodology is used for assessing the sustainability of Umicore's products and services and uses a tool consisting of 58 preformatted questions and answers with scoring and weighting factors and organized around eight themes.

### Biodiversity

The variability among living organisms from all sources including, inter alia, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

#### **Biomarker of exposure**

Substance or its metabolite that is measured in biological fluids (e.g. blood) to assess internal body exposure.

#### COD - Chemical Oxygen Demand

Indirect measure of the amount of organic pollution that cannot be biologically oxidized in a sample of water.

## **CO**₂ equivalent

The universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis.

## **Conflict minerals**

Minerals mined in conditions of armed conflict or human rights abuses, particularly gold, tin, tungsten and tantalum in the context of the Dodd Frank Act (see above).

#### **COSO** framework

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a voluntary private-sector organization which has established a common internal control model against which companies and organizations may assess their control systems.

#### EHS

Environment, health & safety.

#### **Employee turnover**

Expressed in terms of voluntary leavers: number of employees leaving at their own will (excluding lay-offs, retirement, and end of fixed-term contract). This number is related to the total workforce.

#### Excess reading

A result of a biological monitoring analysis that exceeds the (internal) target level.

## Frequency rate lost time accidents

Number of lost time accidents per million hours worked. Accidents on the road to and from work are excluded.

### **Global warming potential**

A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given greenhouse gas relative to one unit of CO₂.

#### Greenhouse gases

GHGs are the six gases listed in the Kyoto Protocol: carbon dioxide ( $(CO_2)$ ; methane ( $CH_4$ ); nitrous oxide ( $N_2O$ ); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride ( $SF_4$ ).

### Hours of training per person

Average number of training hours per employee - including internal and external training and training on-the-job. Training on-the-job can include the hours a person is being trained on the shop-floor, without being fully productive. The total number of training hours is divided by the total workforce.

#### ISO 14001

'International Standards Organisation' specification for environmental management systems (ref. ISO).

#### Lost-time accident

A work related injury resulting in more than one shift being lost from work.

## Microgramme per gramme creatinine

Unit of metal content in urine.

## Microgramme per deciliter blood

Unit of metal content in blood.

#### OHSAS 18001

'Occupational Health and Safety Assessment Series': a Health & Safety management system.

#### **PNEC**

Predicted no effect concentrations representing the concentration of a chemical which has no predicted effect on the environment.

#### **Process emissions**

Emissions generated from manufacturing processes, such as the  $CO_2$  that is arising from the breakdown of calcium carbonate (CaCO₃).

#### **Process safety**

Safety issues related to the use and storage of hazardous chemical substances that may present a hazard to the employees, neighbouring people and the environment.

#### REACH

'Registration, Evaluation and Authorization of Chemicals'; EU chemicals policy.

#### **Recordable injury**

A work related injury resulting in more than one first aid treatment or in a modified working programme but excluding lost-time accidents.

#### **Recycled materials**

Materials that have ended a 1st life cycle and will be re-processed through recycling leading to a  $2^{nd}$ ,  $3^{rd}$ ... lifetime.

#### **SafeStart**®

An advanced safety awareness training and skills development program.

#### Scope 1, 2, 3 CO₂e emissions

Scope 1  $CO_2$ e emissions: A reporting organization's direct GHG emissions.

Scope 2 CO₂e emissions: A reporting organization's GHG emissions associated with the generation of electricity, heating/ cooling, compresses air or steam purchased for own consumption.

Scope 3 CO₂e emissions: A reporting organization's indirect emissions other than those covered in Scope 2.

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## Secondary raw materials

By-products of primary material streams.

## Severity rate lost time accidents

Number of calendar days lost per thousand hours work. Accidents on the road to and from work are excluded.

## Temporary contracts

Umicore employees with a temporary contract. They are not considered part of the stable workforce, but are included in the total workforce.

## **Voluntary leavers**

Number of employees leaving at their own will (excluding lay-offs, retirement, and end of fixed-term contract). This number is related to the total workforce. Umicore Annual report 2015

# **GRI Index**

GRI Reference	Indicator	Page reference in Annual Report 2015	
General			
Strategy and analysis			
1.1	CEO and Chairman statement	6-7	
1.2	Description of key impacts, risks, and opportunities.	6-7; 34-37; Corporate governance statements: G18	
Organizational profile			
2.1	Name of the organization	Front cover	
2.2	Primary brands, products and services	1; 5; 8-17	
2.3	Operational structure of the organization, including	1; 4-5; 8-17; Corporate governance statements: G2; Economic and	
	main divisions, operating companies, subsidiaries, and joint ventures	financial statements: F5, F17	
2.4	Location of organization's headquarters	Inside back cover; back cover	
2.5	Number of countries where the organization operates	5; Social statements: S2	
	and names of countries with major operations		
2.6	Nature of ownership and legal form	Back cover	
2.7	Markets served	1; 5; 8-17; 34-37	
2.8	Scale of the organization	4-5; Social statements: S2; Economic and financial statements: consolidated balance sheet	
2.9	Significant changes in size, structure or ownership	4-5; 6-7; 14-15; Social statements: S2; Economic and financial statements: consolidated balance sheet	
2.10	Awards received in 2015	17; 20; Social statements: S4	
Report parameters			
3.1	Reporting period	Front cover; Inside front cover; 192; Environmental statements: E2	
3.2	Date of most recent report	Annual reports: http://annualreport.umicore.com/home/	
3.3	Reporting cycle	Front cover; Inside front cover; Annual reports:	
		http://annualreport.umicore.com/home/	
3.4	Contact points for questions regarding the report or its	Inside back cover:	
	content	General: benedicte.robertz@umicore.com;	
		Financial: evelien.goovaerts@umicore.com;	
		Social: mark.dolfyn@umicore.com;	
		Environmental: bert.swennen@umicore.com;	
3.5	Process for defining report content	192; Corporate governance statements: Stakeholder engagement	
3.6	Boundary of the report	192; Social statements: S1, S8, S9, S10; Environmental statements: E1, E3, E8, E9	
3.7	Limitations on the scope or boundary of the report	192; Social statements: S1, S8, S9, S10; Environmental statements: E1, E3, E8, E9	
3.8	Basis for reporting on joint ventures & subsidiaries	192; Social statements: S1; Environmental statements: E1; Economic and financial statements: F17; Corporate governance statements: G2	
3.9	Data measurement tech-	192; Social statements: S1-S10; Environmental statements: E1-E10;	
	niques and the bases of calculations	Economic and financial statements: F1	
3.10	Explanation of the effect of any restatements of infor-	192; Social statements: S1, S9, S10; Environmental statements: E1;	
	mation provided in earlier reports, and the reason for	General management approach: http://annualreport.umicore.com/	
	such re-statement	management-review/group-review/management-approach/	
3.11	Significant changes from previous reporting period in	192; Social statements: S1, S8, S9, S10; Environmental statements:	
	scope, boundary or measurement	E1, E2; E3	

iRI Reference	Indicator	Page reference in Annual Report 2015
3.13	Assurance	192; General management approach: http://annualreport.umicore. com/management-review/group-review/management-approach/ general-approach/; Supervision and compliance: http://www.umi- core.com/en/corporate-governance/supervision-compliance/
Governance, commitn	nents and engagement	
4.1	Governance structure of the organization	Corporate governance statements: G2, G4, G5; General managemen approach: http://annualreport.umicore.com/management-review/ group-review/management-approach/
4.2	Non-executive status of Chairman	176; Corporate governance statements: G2
4.3	Number, gender and status of Board members as independent and executive / non-executive	
4.4	Mechanisms for shareholders and employees to pro- vide recommendations to the Board	Corporate governance statements: G3, G9, G10, G11, G21; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/en/corporate-governance/
4.5	Linkage between compensation and the organization's performance (including social and environmental performance)	Corporate governance statements: G12-G15; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/en/ corporate-governance/
4.6	Processes in place to ensure conflicts of interest are avoided	Corporate governance/ Corporate governance statements :G7, G9-G11; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/en/corporate-governance/
4.7	Process for determining the qualifications or expertise of the members of the highest governance body	Corporate Governance Charter: http://www.umicore.com/en/ corporate-governance/corporate-governance-charter/
4.8	Internal guidelines and policies	Corporate governance statements: G1; G9; The Umicore Way: http:// www.umicore.com/en/vision/values/#materialsforabetterlife; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/en/corporate-governance/
4.9	Procedures for identifying risks and opportunities	Corporate governance statements: G16-G18
4.10	Process for evaluating the Board's own performance	Corporate governance statements: G4, G5; Corporate Governance Charter: http://www.umicore.com/en/corporate-governance/ corporate-governance-charter/
4.11	Explanation of how the precautionary principle is addressed	Corporate governance statements: G16, G18
4.12	Externally developed economic, environmental and social charters, principles or other initiatives to which the organization subscribes or endorses	COSO; OECD Guidelines; ILO Human Rights; SRI, FTSE; PACI; GRI
4.13	Membership of industry associations	Corporate governance statements: G25
4.14	List of stakeholder groups engaged by the organization	Corporate governance statements: G19-G26
4.15	Basis for identification and selection of stakeholders	Corporate governance statements: Stakeholder engagement, G19-G26; Approach to Stakeholder engagement: http://www.umicore.com/en/vision/our-vision/sustainability/
4.16	Approach to stakeholder engagement, including fre- quency of engagement	Corporate governance statements: Stakeholder engagement, G19-G26; Approach to Stakeholder engagement: http://www.umicore.com/en/vision/our-vision/sustainability/
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, in- cluding through its reporting	Corporate governance statements: stakeholder engagement; Genera management approach: http://annualreport.umicore.com/man- agement-review/group-review/management-approach/general- approach/; Approach to Stakeholder engagement: http://www.umicore.com/en/vision/our-vision/sustainability/
Disclosure on manage	ement approach	
5	9, <b>4</b> 7, 5 7, 7 7, 7 7, 7 7, 7 7, 7 7, 7 7, 7	Disclosures on management approach: http://annualreport.umicore com/management-review/group-review/management-approach/

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**EN18 (ADDITIONAL)** 

**GRI Reference** Indicator Page reference in Annual Report 2015 Economic indicators **Economic performance** EC1 (CORE) Economic value generated and distributed 4-5; 8-17; Economic and financial statements: F8, F9, F39; Corporate governance statements: G26 EC2 (CORE) Financial implications and other risks and opportunities 25; Corporate governance statements: G18; Environmental Management Approach: http://annualreport.umicore.com/managefor the organization's activities due to climate change ment-review/group-review/management-approach/environment/ Approach/; The Umicore Way: http://www.umicore.com/en/ vision/values/#materialsforabetterlife EC3 (CORE) Coverage of the organization's defined benefit plan Economic and financial statements: F27 obligations EC4 (CORE) Significant financial support received from government Corporate governance statements: G25 Indirect economic impacts Development and impact of investments for public 4; 31-33; Social statements: S5; Environmental statements: E8; EC8 (CORE) Corporate governance statements: G25 benefit **Materials** Percentage of materials used that are recycled input EN2 (CORE) 5; Environmental statements: E6 materials Energy EN3 (CORE) Direct energy consumption by primary energy source Environmental statements: E4 EN4 (CORE) Indirect energy consumption by primary energy source Environmental statements: E4 **EN5 (ADDITIONAL)** Energy saved due to conservation and efficiency Environmental statements: E4 improvements **EN6 (ADDITIONAL)** Initiatives to provide energy-efficient or renewable 10; 16-17; 25; Environmental statements: E4; Umicore's position energy based products and services statements on carbon footprint reduction: http://annualreport. umicore.com/management-review/group-review/managementapproach/environment/positionStatements/carbonReduction.htm (partially reported) **EN7 (ADDITIONAL)** Inititatives to reduce indirect energy consumption and 25; Social statements: S8; Umicore's position statements on carbon reductions achieved footprint reduction: http://annualreport.umicore.com/managementreview/group-review/management-approach/environment/positionStatements/carbonReduction.htm (partially reported) Water EN8 (CORE) Total water withdrawal by source Environmental statements: E5 **Biodiversity** EN11 (CORE) Location and size of operations in or adjacent to Environmental statements: E10 (partially reported) protected areas and areas of high biodiversity value outside protected areas Emissions, effluents and waste EN16 (CORE) Total direct and indirect greenhouse gas emissions by Environmental statements: E3 weight EN17 (CORE) Other relevant indirect greenhouse emissions by Environmental statements: E3 weight

25; Environmental statements: E3

Initiatives to reduce greenhouse gas emissions and

reductions achieved

GRI Reference	Indicator	Page reference in Annual Report 2015		
EN20 (CORE)	NOx SOx and other significant air emissions by type	Environmental statements: E2		
	and weight Total water discharge by quality and destination	Fauireamantal statements F2		
EN21 (CORE) EN22 (CORE)	Total weight of waste by type and disposal method	Environmental statements: E2 Environmental statements: E7		
Products and services				
EN26 (CORE)	Initiatives to mitigate environmental impacts of prod- ucts and services	24-29; Environmental statements: E2, E6 (partially reported)		
Labour practices and	decent work			
Employment				
LA1 (CORE)	Total workforce by employment type and region	4-5; Social statements: S2		
LA2 (CORE)	Total number and rate of employment turnover	4-5; 19-21; Social statements: S4		
Labour/management re	elations			
LA4 (CORE)	Percentage of employees covered by collective bargaining agreements	Social statements: S6		
Occupational health and	l safety			
LA7 (CORE)	Rates of injury, occupational diseases, lost days and absenteeism and number of work-related fatalities by region	4; 19- 21; Social statements: S9, S10 (partially reported)		
LA9 (ADDITIONAL)	Health and safety topics covered in formal agreements with trade unions	21; Social statements: S6; Global framework Agreement on Sustainable Development: http://annualreport.umicore.com/ management-review/group-review/management-approach/social/ GFA_SustDev/GFA_SustDev2015.pdf		
Training and education				
LA10 (CORE)	Average hours of training per year per employee by employment category	4; 19-20; Social statements: S3		
LA12 (ADDITIONAL)	Percentage of employees receiving regular performance and career development reviews	20; Social statements: S3 (partially reported)		
Diversity and equal opp	ortunity			
LA13 (CORE)	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	176-179; Corporate governance statements: G4, G5; Social state- ments: S2. Minority groups are not identified in Umicore considering that in some countries where Umicore operates, it is forbidden to ask questions related to this topic (eg. U.S.A. and France)		
Human Rights				
Investment and procure	ment practices			
HR2 (CORE)	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken	30-31; Social statements: S8; Corporate governance statements: G18		
HR3 (CORE)	Total hours of employee training on policies and procedures concerning aspects of human rights including percentage of employees trained	20; Social statements: S8; All employees receive informal training on the Code of Conduct: http://www.umicore.com/en/ corporate-governance/code-of-conduct/		
Freedom of association	and collective bargaining			
HR5 (CORE)	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk and actions taken	Social statements: S6, S8; Global framework Agreement on Sustainable Development: http://annualreport.umicore.com/ management-review/group-review/management-approach/social/ GFA_SustDev/GFA_SustDev2015.pdf		

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	Page reference in Annual Report 2015
Operations identified as having significant risk for inci- dents of child labour and measures taken to contribute to the elimination of child labour	Social statements: S6, S8; Global framework Agreement on Sustainable Development: http://annualreport.umicore.com/ management-review/group-review/management-approach/social, GFA_SustDev/GFA_SustDev2015.pdf
bour	
Operations identified as having significant risk for inci- dents of forced or compulsory labour and measures taken to contribute to the elimination of forced or compulsory labour	Social statements: S6, S8; Global framework Agreement on Sustainable Development: http://annualreport.umicore.com/ management-review/group-review/management-approach/social, GFA_SustDev/GFA_SustDev2015.pdf
Percentage of operations with implemented local com- munity engagement, impact assessments, and devel- opment programs	3; 32; Social statements: S5
	Corporate governance statements: G15; G24; Umicore is signatory o PACI
Percentage of employees trained in organization's anti- corruption policies and procedures	All employees receive informal training on the Code of Conduct: http://www.umicore.com/en/corporate-governance/ code-of-conduct/ when joining the company
Public policy positions and participation in public policy	Corporate governance statements: G25
Total value of financial and in-kind contribution to po-	Corporate governance statements: G25
tv	
	26; Environmental statements: E6 (partially reported)
ing	
Type of product and service information required by procedures and percentage of significant products and service categories subject to such information requirements	26; Environmental statements: E6
	<ul> <li>dents of child labour and measures taken to contribute to the elimination of child labour</li> <li>Dour</li> <li>Operations identified as having significant risk for incidents of forced or compulsory labour and measures taken to contribute to the elimination of forced or compulsory labour</li> <li>Percentage of operations with implemented local community engagement, impact assessments, and development programs</li> <li>Percentage and total number of business units analysed for risks related to corruption</li> <li>Percentage of employees trained in organization's anticorruption policies and procedures</li> <li>Public policy positions and participation in public policy development and lobbying</li> <li>Total value of financial and in-kind contribution to political parties, politicians and related institutions</li> <li>ty</li> <li>Life cycle stages in which health and safety impacts of products and services are assessed for improvement and percentage of significant products and service categories subject to such procedures</li> <li>ng</li> <li>Type of product and service information required by procedures</li> </ul>

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Umicore Annual report 2015

## About this report

Umicore's Annual Report 2015 offers a comprehensive and integrated view of Umicore's economic, financial, environmental and social performance for 2015.

The report consists of two sections – a Management Review and a statements section. The Management Review (pages 1 to 37) provides an introduction to Umicore and focuses on the key performance aspects of 2015, the achievements of Umicore's Vision 2015 strategy and an overview of Horizon 2020 ambitions. The statements section (pages 38 to 192) includes full financial, environmental, social & governance statements and notes. All elements of the Annual Report 2015 can be consulted at Umicore's on-line reporting centre at http://annualreport.umicore.com/.

## An integrated approach

One of the key objectives of Umicore's Annual Report has been to reflect Umicore's integrated strategic approach which combines economic, environmental and social performance targets. This approach to reporting is the result of a period of consultation with internal and external stakeholders between 2009 and 2011 and is inspired by the concept of "integrated reporting" as being developed by the International Integrated Reporting Council.

## Reporting scope

In terms of overall scope, Umicore's Annual Report 2015 covers Umicore's operations for the financial / calendar year 2015. The planned divestment of the Zinc Chemicals and Building Products business units announced in the course of 2015 does not have any significant impact on the reporting. This report can be considered as the closing report on the company's Vision 2015 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 is available, the performance indicators in the document are reported with a comparison base going back five years to 2011.

The economic scope of the report covers all fully consolidated operations. In addition, the financial contributions of all associate and joint venture companies are included in the financial reporting. The scope of the environmental and social elements of the report is limited to the fully consolidated entities (including the planned divestments) – any divergence from this scope is explained in the relevant chapter or note in the report.

## Data

The data for the economic and financial elements of the report are collected through the company's financial management and consolidation process. The environmental and social data is 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 46 to 119 and page 180 of the report. The social 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 121 to 149. The independent auditor's report of PwC on the social and environmental statements can be found on page 181 of the report.

Umicore has followed the Global Reporting Initiative (GRI) framework since 2007. Although GRI has transitioned to G4, this year's reporting is based on GRI G3.1 for the sake of consistency and comparability over the Vision 2015 reporting period. A GRI index can be found on page 186 to 190. Umicore evaluates suitable reporting frameworks for reporting on the progress towards the Horizon 2020 objectives for the period 2016-2020.

## 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 through both the print and on-line versions of the report (see facing page for details).

## **Other information**

Other additional information includes a summary of Umicore's approach to economic, environmental and social management. These elements have been provided on Umicore's website (http://annualreport.umicore.com/management-review/group-review/management-approach/) and should be considered as part of this report.

# Financial calendar⁽¹⁾

## 26 April 2016

General meeting of shareholders (financial year 2015) Trading update for the first quarter of 2016

## 28 April 2016 Share traded ex-dividend

2 May 2016 Payment of dividend starts

29 July 2016 Results for the first half of 2016

21 October 2016 Trading update for the third guarter of 2016

# Additional information

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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

#### Publisher responsible at law

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