# Annual





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### About this report

Assurance reports

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& Senior Management profiles

This Annual Report is an integrated view of our economic, social and environmental performance in 2013. To access the full web-based report please visit our dedicated reporting centre via the link below. For mobile users the QR codes will direct you to relevant parts of our on-line report.

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Our report is externally verified and reaches the GRI reporting level B+. A full overview of the scope of our reporting can be found on page 190.

Consult the online report www.umicore.com/reporting









## Vision 2015

Umicore's strategy, Vision 2015, is shaped by global economic, social and environmental megatrends. Our competencies, market positions and expertise in metallurgy, materials science, application know-how and recycling give us strong growth potential in the following areas:

**Resource scarcity:** in today's world metals are in greater demand but are becoming ever scarcer. Umicore's recycling capabilities recover 26 elements including precious and other metals.

**Clean air:** the drive towards stricter emissions standards provides global growth opportunities in automotive catalysts for both light and heavy duty vehicles.

**Vehicle electrification:** the growing market for lithium ion batteries used in electrified vehicles is driving demand for our rechargeable battery cathode materials.

**Clean energy:** Umicore develops materials that form the heart of highly efficient photovoltaic technologies and which enable other energy efficient products.

Our Vision 2015 objectives cover our economic ambitions and also challenging goals for environmental and social performance:

#### **Economic**

**Growth and returns:** our key growth projects have the potential to achieve double digit revenue growth. Our long-term goal is to generate an average return on capital employed of 15-20%.

#### Great place to work

Safety: we aim to have zero lost time accidents.

**Occupational exposure:** we will reduce the body concentrations of specific metals to which our employees have an exposure: Cd, Pb, Co, Ni, As, Pt.

**People development:** all employees worldwide will receive an annual appraisal to discuss individual development.

**Preferred employer:** we will target specific actions based on the results of the 2010 People Survey.

#### **Eco-efficiency**

**Reduce carbon footprint:** we aim to reduce our CO<sub>2</sub> emissions by 20% vs the level of 2006 and using the same scope of activities as 2006.

**Emission reduction:** we aim to reduce by 20% the impact of metal emissions to water and air vs 2009 levels.

**Product sustainability:** we will invest in tools to better understand and measure the life cycles and impacts of our products.

#### Stakeholder engagement

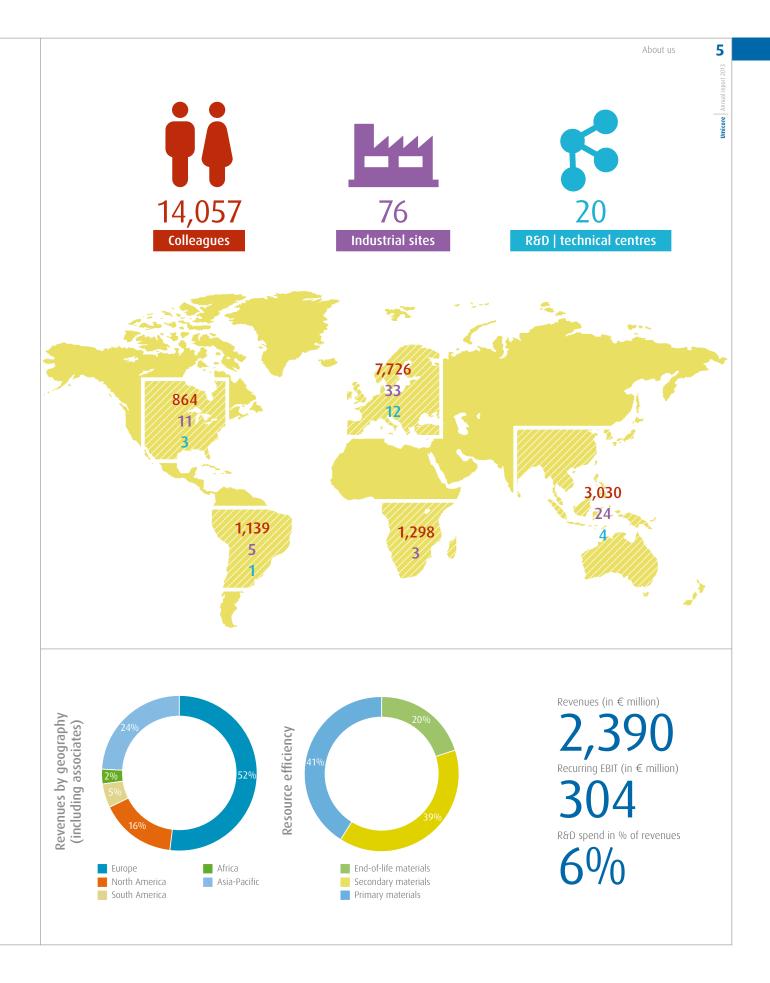
**Sustainable procurement:** we will implement our new sustainable procurement charter throughout our business.

**Local community:** all our sites will be expected to make further steps in identifying key stakeholders and engaging with the local community.

## Key figures

Economic performance (in million € unless stated otherwise)	2009	2010	2011	2012	2013
Turnover	6,937.4	9,691.1	14,480.9	12,548.0	9,819,3
Revenues (excluding metal)	1,723.2	1,999.7	2,318.6	2,427.4	2,390.0
Recurring EBIT	146.4	342.5	416.1	372.1	304.0
of which associates	(6.1)	30.1	22.9	22.2	11.8
Total EBIT	141.2	324.0	432.7	328.6	260.0
Recurring EBIT margin (in %)	8.9	15.6	16.9	14.4	12.2
Return on Capital Employed (ROCE) (in %)	8.1	17.5	18.6	16.7	13.0
Recurring net profit, Group share	139.7	158.0	304.6	275.2	218.0
Net profit, Group share	73.8	248.7	325.0	233.4	179.0
R&D expenditure	119.5	119.2	136.7	149.0	140.0
Capital expenditure	181.6	156.6	196.2	235.7	279.6
Net cash flow before financing	258.4	(68.2)	308.6	150.3	185.9
Consolidated net financial debt of continued operations, end of period	176.5	360.4	266.6	222.5	215.0
Gearing ratio of continued operations, end of period (in %)	11.4	18.6	13.4	11.0	111.
Group shareholders' equity, end of period	1,314.2	1,517.0	1,667.5	1,751.7	1,677.
Recurring EPS (in €/share)	0.73	2.33	2.69	2.47	1.90
EPS including discontinued operations, basic (in €/share)	0.66	2.20	2.87	2.09	1.6
Gross dividend (in €/share)	0.65	0.80	1.00	1.00	1.00
Great place to work	2009	2010	2011	2012	2013
Total workforce (incl. associates)	13,728	14,386	14,572	14,438	14,05
of which associates	4,415	4,828	4,408	4,042	3,86
Lost Time Accidents (LTA)	48	56	60	49	3.
LTA frequency rate	3.12	3.54	3.61	2.86	2.08
LTA severity rate	0.08	0.13	0.11	0.11	0.10
Exposure ratio 'all biomarkers aggregated' (in %)	-	-	5.15	4.32	2.60
Average training hours per employee	44.05	43.30	51.94	50.72	45.18
Voluntary leavers - ratio	2.59	3.78	3.84	3.20	3.3
Eco-efficiency	2009	2010	2011	2012	2013
CO <sub>2</sub> e emissions (scope1+2) (in tonne)	529,628	543,807	695,733	701,898	693,839
Metal emission to water (load in kg)	5,915	6,495	5,781	5,701	5,56
Metal emission to water (impact units)	442,575	389,676	306,627	245,935	313,88
Metal emission to air (load in kg)	11,950	13,582	13,867	16,614	12,53
Metal emission to air (impact units)	214,650	184,066	129,900	135,059	140,34
Stakeholder engagement	2009	2010	2011	2012	2013
Total donations (in € thousand)	1,106.5	1,009.4	1,751.0	1,759.2	THHIIII

The application of the R&D and Capex definitions have been reviewed and figures have been restated for comparability reasons. The new definitions are explained in the glossary p. 181-182.





Umicore Chairman, Thomas Leysen and CEO, Marc Grynberg look back on 2013 and give their view on the prospects and priorities for 2014 and beyond.

As we anticipated this time last year, 2013 turned out to be a challenging period for several of Umicore's businesses. We generated a recurring EBIT of € 304 million, which was some way below the record profits we generated in 2011. The main reasons for this decrease were the impact of lower metal prices and the sluggish economy in Europe. The metal price tailwind of the last few years turned into a headwind, reducing the profitability of our Recycling activities. Despite this, the Recycling activities continued to produce by far the most significant level of returns of all our businesses. In Catalysis, a less favourable product and regional mix in addition to higher start-up costs continued to impact profitability. The results of Energy Materials improved from the lows of 2012 while Performance Materials overall posted a robust performance, considering an economic context that remained highly challenging. The difficult but necessary cost reduction efforts initiated in 2012 and continued in 2013 helped to improve our competitiveness and profitability in a number of business units.

In 2013 we continued to invest strongly in our Vision 2015 growth initiatives. We spent € 280 million on capital expenditures with a clear emphasis on those businesses offering the highest growth potential. In Catalysis we continued to deploy new production infrastructure to enable our customers to meet more stringent emission norms around the world. These investments included new production lines for heavy duty diesel catalysts and technology development centres in Japan and South America. In Energy Materials the focus was on a further expansion of production capabilities for rechargeable battery materials to cater for emerging demand in automotive applications. In Recycling a series of investments in the Hoboken facility neared completion and we announced a major project to expand the capacity at the plant which should receive final approvals in the course of 2014. We also continued to invest strongly in research and development programmes, although the absolute level of spending was lower than the previous years as some of our key projects are moving to a commercialization phase. While these

investments confirm the confidence we have in our growth prospects, they also placed a burden on short term financial performance through increased depreciation charges and start-up costs.

Operational cashflows remained very positive during the year. Despite the high level of investments that we outlined above and paying for a medium-sized acquisition in the Energy Materials business, we were still able to show a year-on-year increase in net cashflow before financing. We continued to buy back our own shares during the year and returned some € 85 million to shareholders in the process. The Board of Directors has recommended a stable dividend pay-out of € 1.00 a share which represents a dividend yield in excess of 3%. Together the buyback and proposed dividend represent a return to shareholders of close to € 200 million for the year.

"The metal price tailwind of the last few years turned into a headwind, reducing the profitability of our Recycling activities."

#### CEO & Chairman's review

# "In terms of sustainability performance we again made good progress."

The continued ability of the business to produce these strong cash-flows means that Umicore's financial position remains very solid. Notwithstanding the lower earnings and high level of investments, net financial debt decreased further in 2013. This will allow us to continue funding our various growth projects and also provides us with the financial flexibility to look at larger acquisition opportunities should they provide a compelling strategic fit and, of course, be available at the right price.

In terms of sustainability performance we again made good progress. On the environmental front we further reduced our CO<sub>3</sub> emissions compared to the baseline year. The most significant part of the improvement is sustainable and is the result of targeted energy efficiency measures that are now bearing fruit. Although metal emissions to air and water increased, largely as a result of increased activity levels, the overall environmental impact of these emissions is still well below the challenging targets that we have set ourselves for 2015. In terms of product sustainability we have now conducted sustainability assessments for a broad sample of our products and services. The challenge in the coming years will be to harness the results to generate value for our customers and to provide a more complete view on our sustainability contribution as a Group.

Our initiatives to promote sustainability in the supply chain moved to another level. We attained conflict-free smelter status for our main recycling operations with other

activities scheduled to be certified during 2014. We also continued to deploy our own Sustainable Procurement Charter to our suppliers with over 1,000 key suppliers having signed up to the charter by the end of the year. Although engagement with some suppliers to address areas for improvement is, in some cases, a difficult and complex process we are pleased with the overall level of progress made.

We also continued to make strides in being recognized as a great place to work with the vast majority of our employees now working in sites that have received preferred employer recognition. We will conduct the next edition of our employee survey in 2014 and this will provide a barometer of the progress that we've made since the last survey in 2011 and will also give us an indication of where we can make further improvements. Our efforts in the area of employee health particularly in the area of workplace exposure to metals - also made excellent progress in 2013.

Umicore's safety performance in 2013 improved further with the number of accidents dropping by more than a quarter and the vast majority of our operations ending the year accident free. The tragic accident in Olen in January 2014, in which two of our employees lost their lives, has removed all satisfaction that we had derived from these improvements. We have started an initiative to intensify the focus on process safety company-wide and we are adamant that the necessary lessons will be learned from the accident. Wherever needed, improvements

will be made to further reduce the risk of a similar accident happening in future, either in Olen or elsewhere in Umicore. More than ever we remain committed to our goal of making Umicore a zero accident workplace.

Looking forward to 2014, there are positive signs but uncertainties remain. There are indications that some of our key markets are starting to show signs of recovery and the European economy has recently moved out of recession and is expected to grow modestly. Many of our businesses are set to benefit from this trend and are better positioned from a competitive perspective than before the economic crisis. In addition, a number of recent investments will start their contribution to Group revenues and earnings. Conversely, the global economy remains in a state of flux and the impact of shifting monetary policy on emerging market growth has recently become an area of attention. It remains to be seen how all these factors will play out on metal prices.

In the 2014 outlook that we gave in February we indicated that full year recurring EBIT could end up slightly The longer term prospects of Umicore are sound and well recognized. We have the financial strength, the products, the technologies and the people to succeed. By focusing on the right priorities, 2014 will bring us closer to realizing our Vision 2015 objectives. Our ultimate aim is to deliver on these objectives and to improve our performance from one economic cycle to the next. It's not a question of focusing on either long term growth or managing the current economic conditions capably – to succeed we must do both.

We would like to take this opportunity to extend our thanks and appreciation to Umicore's employees for their commitment in 2013, to our shareholders for their continued support and to our customers, suppliers and other business partners for their continued loyalty.

# "By focusing on the right priorities, 2014 will bring us closer to realizing our Vision 2015 objectives."

below that of 2013 if current metal prices persist. While we expect a definite improvement in the performance of our product businesses, this may not be sufficient to fully offset the impact of lower metal prices on the profitability of the Recycling business group.



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# "Capital expenditures totalled € 280 million, with the vast majority relating to Vision 2015 growth projects."

#### **Overview**

While some businesses started to show signs of recovery during the year, this was not enough to offset the impact of lower metal prices on recycling revenues and margins. Earnings were lower year-on-year due to a combination of this metal price effect, mix effects and higher costs linked to our Vision 2015 growth initiatives. Some business units did see profitability recover somewhat as a result of the benefits of selective cost reduction measures taken in previous periods as well as in 2013.

From a financial perspective Umicore's position remained very strong. Cash flows were strong and we were able to reduce net debt further, even after a buying back more than 2% of our own shares during the year and making an acquisition.

### Revenues, earnings & returns

#### (See the charts on p. 9-10)

Revenues were down 2% compared to 2012, reaching € 2.4 billion. An increase in Catalysis and Energy Materials was more than offset by a decrease in Recycling.

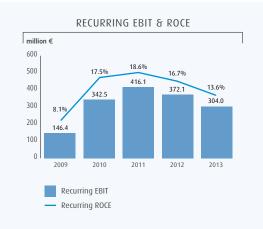
Turnover (which includes metal values) was 22% lower year-on-year.

This was due to the significant decrease in the prices of most precious and specialty metals from the second quarter onwards. For Umicore, revenue is a more meaningful metric of "top-line" performance than turnover as it excludes the price of metals passed through to customers.

Recurring EBIT was 18% lower than in 2012 at € 304 million. This primarily reflected the impact of lower precious and specialty metals prices and this effect was most pronounced in the second half of the year. Some of our activities felt the effects of a less favourable product and regional mix while others saw profitability recover

somewhat as a result of the benefits of selective cost reduction measures. In Catalysis, recurring EBIT was 19% lower as a result of a less favourable mix as well as higher costs related to the start-up of new growth investments and additional depreciation charges. Revenues in Energy Materials grew strongly, driven by the increasing sales of materials for use in rechargeable batteries. Recurring earnings in Energy Materials recovered largely as a result of the cost reduction programmes that had been implemented from 2012. In Performance Materials, although revenues were down 3%, recurring EBIT was at the same level as 2012 with the benefits of cost

#### REVENUES (EXCLUDING METAL) million € 3,000 2,427.4 2.390.0 2,500 2,318.6 1.999.7 2.000 1.723.2 1,500 1,000 500 2009 2010 2011





reduction measures counterbalancing the economic headwinds experienced by several business units. Recycling revenues and recurring EBIT were down 13% and 23% respectively as a result of a sharp drop in metal prices. Lower demand in certain end-markets of Jewellery & Industrial Metals and a lower contribution from its recycling activities also had a negative impact on revenues and performance of the business group. Net recurring corporate costs were at roughly the same level as those of 2012 at € 48 million. For a full discussion of segment economic performance see pages 26 to 41.

Non-recurring items had a negative impact of € 43 million on EBIT. Restructuring charges accounted for € 31 million, the majority of which related to the closure of Element Six Abrasives' plant in South Africa and the closure of Zinc Chemicals' plant in Melbourne, Australia, as well as the implementation of cost reduction measures in Building Products. Umicore also booked environmental provisions of € 8 million related to the remediation of historical pollution on site surroundings. Impairments on permanently tied-up metal inventories,

#### Economic review

resulting from lower metal prices, accounted for € 2 million. The impact of non-recurring charges on the net result (Group share) amounted to € 39 million.

Depreciation charges on property, plant & equipment and intangible assets totalled € 159 million compared to € 152 million in 2012. This was due to the completion of more new growth investments in 2013. Overall recurring EBITDA decreased by 12% to € 463 million.

Average capital employed was slightly above the levels of 2012 with higher fixed assets more than offsetting the effects of lower working capital requirements. Umicore generated a return on capital employed (ROCE) of 13.6% compared to 16.7% in 2012. This was below our Vision 2015 target of generating a return on capital employed of above 15%.

#### Financial costs & taxes

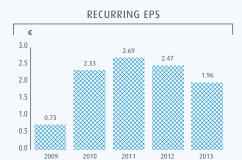
Net recurring financial charges totalled € 23 million, similar to the level of 2012, with negative foreign exchange results offsetting the effect of lower interest charges. The average weighted net interest rate decreased further to 1.61% (compared to 1.92% in 2012).

The recurring tax charge for the period amounted to € 57 million. The overall recurring effective tax rate for the period was 21.3%, compared to 20.6% in 2012.

#### **Cashflows**

Cashflow from operations increased by 8.7% to € 523 million, including a release of working capital of € 97 million partly as a result of lower metal prices.

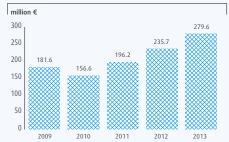
Net cashflow before financing increased to € 186 million, including





Consolidated net financial debtNet debt/ (net debt + equity)

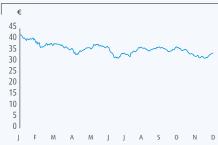
#### CAPITAL EXPENDITURE



#### **R&D EXPENDITURE**



SHARE PRICE



**GROSS DIVIDEND** 

R&D expenditure / revenues



the amount paid for the Palm Commodities International acquisition. Total net cashflow for the period stood at € -33 million, including € 196 million of cash returned to shareholders in the form of share buybacks and dividends, which corresponded to 38% of cashflow generated from operations.

#### Net debt evolution

At 31 December 2013 Umicore's net financial debt stood at € 215 million versus € 222 million at the start of the year. Group equity stood at € 1,723 million and the gearing ratio (net debt / net debt + equity) was 11.1%. The average net debt to recurring EBITDA ratio stood at 0.4x.

#### Capital expenditure

Capital expenditures totalled € 280 million. The vast majority of capital expenditures relates to Vision 2015 growth projects. Compared to 2012, investments were up in Catalysis, linked to the addition of light duty and HDD production capabilities in Asia and Europe and the construction of the technology development centres in Japan and Brazil. Investments were also up in Energy Materials with capacity investments for cathode materials in Korea and China and the construction of a new precursor facility in Korea. In Recycling, capital expenditure continued to run at a high level as a result of the expansion of the sampling facilities and new water and gas cleaning equipment in Hoboken, Belgium. Investments were stable in Performance Materials. Umicore revised its definition of capital expenditures in 2013 and capital expenditures now excludes capitalized R&D costs (see glossary for the new definition). The figures for previous periods have been restated accordingly.

### Economic review





### Research, development & innovation

R&D expenditure in fully consolidated companies was € 141 million, corresponding to an R&D spend to revenue ratio of 6%. Overall net R&D spending for 2013 was slightly lower than in 2012 as a result of some projects moving to commercialization and a higher level of grants received.

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 was dedicated to recycling technologies as well as processes for the production of catalysts and rechargeable battery materials. From 2013 Umicore decided to deduct any research grants that are received from third parties from its reported R&D figures. We also applied the internationally recognized Frascati Manual definitions

for R&D expenditure. The R&D expenditure figures for previous periods have been restated accordingly. The reported R&D expenditure in this report also exclude R&D of associates.

Our fuel cell materials joint venture, SolviCore, continued to develop its presence in projects for sustainable mobility.

A total of 36 new patent families were filed in the course of 2013, compared to 45 in 2012.

We have prioritized R&D programmes to offer the best possible support to our Vision 2015 ambitions with a focus on the development of innovative materials and processes in Catalysis, Recycling and Energy Materials. The Executive Committee focuses its technology reviews on the top ten innovation projects that form part of these Vision 2015 growth ambitions to ensure quality of implementation and speed of execution. These top

Umicore awarded the € 10,000 Umicore Scientific Award for 2013 to Dominik Berg, a German physicist, for his PhD work in the field of thin film photovoltaics when studying at the Laboratory for Photovoltaics of the University of Luxembourg. Dominik's entry was one of 35 submitted from all over Europe.

Marc Grynberg, CEO of Umicore, commented: "It was a pleasure to hand over the 2013 Umicore Scientific Award to Dominik for his brilliant PhD thesis. I attach great value to this award as it rewards scientific research of a very high level and it contributes to our mission to develop materials for clean technology applications."

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; technology for metal-containing compounds such as recycling; sustainable energy related topics; catalysis and finally, economic or societal issues linked to metal-containing compounds.

Since its launch 6 years ago, Umicore and its partners have judged over 200 entries and awarded approximately € 120,000 to 28 scientists across Europe.

#### **CASE**



#### Creating a brighter future

LEDs are the biggest thing in lighting since the light bulb. They last a long time, save their owners money, and are environmentally friendly. Making LEDs shine brighter is a great example of how Umicore can improve a customer's product performance.



An LED (Light Emitting Diode) is a semiconductor device which glows when an electric current is passed through it. The LED semiconductor crystals need carrier systems to reflect the light to the outside, and this is where Umicore plays a key role.

Leading the way in LEDs

With the market for LEDs expected to show significant growth, Umicore is set to play a leading role in creating a brighter future. LED carrier systems coated with Umicore's new ARGUNA® 630 and ARGUNA® 4500 silver electrolytes reflect like mirrors. This enables displays of smartphones and tablet PCs to shine incredibly brilliantly - even at low power consumption. In TV sets, ARGUNA®-coated high-performance LEDs enable pictures and movies to be shown

in brilliant colour at extremely high resolution.

Adding value

"Our detailed electroplating knowledge helps customers improve their overall process performance," explains Thomas Engert, Vice-President Electroplating. "For example, our know-how has enabled us to improve the process stability and thermal stability of the silver layer on LED carrier systems, which helps LEDs shine brighter." This not only means a better product, it also reduces a customer's cost.

#### A satisfied customer

Customers choose Umicore for its reliability and competence in precious metal electroplating. Shenzhen ChongHui Surface Technology Development in

China works closely with our Electroplating division in China. Mr. Zheng Jianguo, Managing Director, comments: "Besides the good performance of the final coatings, Umicore's local team in China provides me with the field service I need to adjust electroplating processes to the specific needs of our production environment. This helps us make the whole process more efficient."

About electroplating

Electroplating is a technique to put a thin metal layer on a product to change its appearance or surface behaviour. The coating protects the product against corrosion or adds value through its brilliant metallic surface. The challenging aspect is to get the formulation of chemical ingredients exactly right for the particular application and process conditions. Umicore's considerable expertise and experience in electroplating gives customers a valuable helping hand in this respect.

Thin layer

An everyday example is electroplating a metal necklace with a layer of gold to impart a richer colour or hide surface defects. The coated layer is exceptionally thin: an electroplated layer of gold is typically 50 times thinner than a human hair. Apart from jewellery and LEDs, you can see electroplating applications everywhere: car bumpers and tyre rims, office furniture, bathroom equipment, telecom switchgear, electronic devices.

ten projects cover product technologies in automotive catalysis, fuel cell catalysis and rechargeable battery materials. They also include recycling technologies as well as processes for the production of catalysts, rechargeable battery materials and thin film materials. In 2013 the Executive Committee undertook six dedicated technology reviews.

From an open innovation perspective, we continued to develop our collaboration network with universities and research institutes around the world in 2013. We continued to host close to one hundred internships for students as part of their masters and bachelors' studies and directly sponsor 26 PhD students over the course of their studies. Umicore holds four guest 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 May we awarded the Umicore Scientific Award to Dominik Berg, a German physicist, for his PhD work in the field of thin film photovoltaics when studying at the Laboratory for Photovoltaics of the University of Luxembourg. Dominik's entry was one of 35 submitted from all over Europe.

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; technology for metal-containing compounds such as recycling; 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 200 entries and awarded approximately € 120,000 to 28 scientists across Europe.

#### The Umicore share

Equity markets in general recovered during the course of 2013. Although the global economy remained rather unpredictable and Europe's recovery slow and erratic, confidence in equities was buoyed by monetary stimulus and growing optimism about global growth.

In 2013 Umicore's share price decreased by 18.6%, from € 41.69 to € 33.96, which was in contrast to the 8.5% increase in the Dow Jones Specialty Chemicals Index in relative and currency-adjusted terms. The share price was down 31% compared to our "home" Bel20 Index. This decrease can be primarily linked to the negative evolution of precious metals prices during the course of the year. During the year we retained our place in the FTSE4Good sustainability index and a number of other sustainability oriented funds.

At the end of 2013 4 investment companies had holdings in Umicore that were above the declaration threshold of 3%. These companies had combined declared holdings of 16.06% at year's end. In the course of 2013, Umicore bought back 2,437,385 of its own shares. During the year 296,912 shares were used in the context of exercised stock options, while another 21,900 were

used as share grants to the members of the Board of Directors and Executive Committee. At the end of the year we held 10,228,661 or 8.5% of our own shares in treasury.

If the appropriation of profit proposed to shareholders is approved, a stable gross dividend of  $\in$  1.00 per share will be paid for the financial year 2013. Taking into account the gross interim dividend of  $\in$  0.50 paid in September 2013, a balance gross amount of  $\in$  0.50 would be paid in May 2014.



In September, Umicore was recognised by tyre manufacturer Michelin for its exceptional contribution as a supplier of cobalt salts and zinc oxides. Umicore is one of six suppliers from around the world to receive such an award, which is the result of many years of dedicated customer service and supply of the highest quality cobalt and zinc products.

Guy Beke, Senior Vice-President Zinc Chemicals commented: "Getting such a prestigious award from a leading tyre manufacturer in the world is a great honour. Reaching this level of recognition would not have been possible without our people's high level of dedication each and every day for over 20 years."

Jan Vliegen, Senior Vice-President Cobalt & Specialty Materials added: "For more than ten years we have been supplying high-quality cobalt products to the Michelin Group. I am proud of our colleagues who deliver a dedicated customer service. Thanks to their commitment Michelin has grown into a top five customer for our cobalt products."

Zinc oxide is used as an accelerator in a process called vulcanization, which makes rubber resistant enough to use in a tyre. Cobalt salts are used as a 'rubber adhesion promoter' to help the rubber bind to the steel wires that reinforce the tyre.

Michelin used the EcoVadis scorecard which showed an outstanding level of maturity for Umicore in terms of corporate social responsibility.











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## "We took further steps to refine our approach to diversity management in 2013."

#### Zero accidents

(See the charts on p. 15)

In 2013 Umicore's safety performance made further improvements. We recorded 35 lost time accidents compared to 49 the year before – a reduction of more than 25%. This resulted in a frequency rate of 2.1 (compared to 2.9 in 2012) and a severity rate of 0.10 (compared to 0.11 in 2012). Interestingly, close to 80% of all our sites were accident-free in 2013 while two sites accounted for half of the lost time accidents in the whole company.

An increasing number of sites and business units have defined indicators to measure the effectiveness of their accident prevention efforts, such as the number of action items finalised following safety audits, remediation measures following near miss reports, safety training hours or preventive measures suggested by staff. These measures are being used as leading indicators of safety in sites to provide site management with an improved ability to diagnose the level of risk and take the necessary action. A range of other safety initiatives are being implemented in the business units, involving both in-house developed initiatives as well as external programmes such as SafeStart®. More details on some of these initiatives can be found in the business group reviews between pages 26 and 41.

We held the third edition of our Safety Award in 2013 with the winner, the Maintenance Team of the Automotive Catalysts site in Tulsa, being chosen by a jury from a field of 62 submissions covering more than 500 people. The jury was most impressed by the way



Scan this QR-code to access the full online case study



"I like to work for Umicore because Umicore gives us the chance to grow."

Mykhailo Guch, Markham, Canada

#### Great place to work

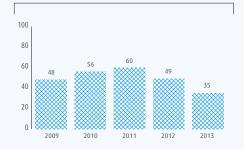
the nine-person team integrates safety in all aspects of their work and by the way they combine careful risk evaluation with a strong customer focus. Their attitude was also a factor in influencing safety performance in the Tulsa plant as a whole, which has not had lost time accident for staff in 5 years. 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 addition to individual awards we recognize sites that have achieved the benchmark of three years or five years with no lost time accidents or recordable injuries to Umicore staff and no lost time accidents involving contractors. At the end of 2013, 11 sites had achieved the three year benchmark and five of these sites had also achieved the five year benchmark.

In January 2014 an accident at the Olen plant in Belgium cost the lives of two Umicore employees. Preliminary findings indicated that the accident was due to an unexpected accumulation of hydrogen in the storage tank on which the two employees were carrying out maintenance work. A preliminary report was submitted to the Health and Safety Inspectorate and a process was launched to share the learning from the accident through the Group.

#### 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 is to ensure that all employees receive an appraisal at least once a year regarding their personal development.

#### LOST TIME ACCIDENTS (LTA)



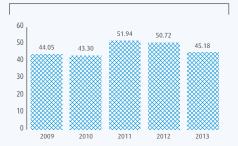
#### ACCIDENT FREQUENCY RATE



#### ACCIDENT SEVERITY RATE



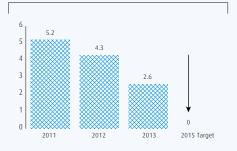
#### AVERAGE TRAINING HOURS PER EMPLOYEE



#### **VOLUNTARY LEAVERS - RATIO**



#### EXPOSURE RATIO 'ALL BIOMARKERS AGGREGATED'



Our initial findings in 2011 showed that 87% of all employees already receive such an appraisal. In 2013 we made further progress in this area and by the end of the year 96% of employees had received an appraisal.

One indication of people development is the intensity of training. In 2013, the average training hours per employee was 45.18 compared to 50.72 hours in 2012. The reduction from the highs of 2011 / 2012 can be partially attributed to a significantly reduced level of on-boarding training resulting from lower levels of recruitment and the fact that no major new sites came on-stream during the year. In 2013 we continued to strengthen our focus on on-the-job training where learning is focused on hands-on practical experience and / or integrated into the dayto-day work environment. We held more than 50 "Lunch & Learn" seminars throughout the year, covering a wide range of topics.

In 2013 we deployed a new learning management platform (My Campus). The initial scope of the roll out was the sites in Belgium and the larger sites in Germany followed by sites in Brazil, US and China. 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 on-line 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.

In 2013 our management population of some 1,900 people

completed the biennial Talent Review, the Group-wide talent mapping exercise. This process enables managers to express their career and mobility aspirations and have these reviewed in a career panel. We also completed specific competence and talent exercises in North America and Asia Pacific. The new platform for commercial functions at Umicore held two summit meetings in Europe and Asia, one aim of which was to further develop the sales and marketing competences within the company.

#### Preferred employer

Attracting and retaining people is becoming an ever-greater challenge, particularly in technologyintensive sectors such as the ones in which Umicore is present. We have based our 2015 preferred employer objectives on the results of the 2010 People Survey. Each site is expected to have a plan in place to be considered as a preferred employer in its own operating context. In some countries preferred employer programmes exist that offer high levels of visibility and recognition – this is particularly the case in the European Union.

All the sites in Belgium, France and Brazil as well as the largest sites in Germany obtained national recognition as a Top Employer. By the end of 2013, 73% of employees worked in a site that was considered as a preferred employer in its local context. This compares to a level of 68% in 2012. By the end of 2013, 82% of the sites had a plan to be considered as a preferred employer, compared to a level of 76% in 2012. 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 2013 the employee turnover rate remained quite stable at 3.3% compared to a level of 3.2% in 2012. 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.

As part of the Sustainable Development Agreement with the international union IndustriALL, we participated in a Monitoring Committee meeting at the IndustriALL headquarters in Geneva where we shared information on topics such as working conditions, training, education and social policies.

We took further steps to refine our approach to diversity management in 2013. We introduced a pilot mentoring programme that pairs mid-career women managers with senior management mentors. This is designed to share experiences, increase the exposure of mid-career women managers to senior management and raise awareness of the possible career paths in the company. Gender diversity at senior management level has increased steadily in recent years and there are now more nationalities represented in senior management. Umicore was selected as one of the two best

performers in Belgium in the Vigeo Assessment on discrimination prevention and diversity promotion.

The next edition of the Umicore People Survey is scheduled for 2014 and an overview of the results will be provided in the 2014 Annual Report.

#### Occupational exposure

Umicore is making all 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 is to reduce to zero the number of individual readings that indicate an exposure for an employee that is higher than the internal target levels. While these excess readings do not necessarily indicate a risk for the person concerned they are



Scan this QR-code to access the full online case study



"Safety is number one. We make sure that whatever we are doing, it's is going to be safe." Steve Kotsiris, Auburn Hills, USA

#### **U**:

Employees at the Automotive Catalysts plant in Burlington (Canada) came up with innovative ideas to create a safety culture, which led to them being nominated for the Umicore Safety Award.



#### **Posters and slogans**

One idea that has really taken off in Burlington is that every time the plant holds a family day or family event, employees make a poster and all family members put their stamp on it. This could be their handprint or footprint and their name. The posters are then hung up around the plant.

"The posters remind employees to stay safe at work because we all have families at home and we want to return home safe to them," says Hilsia Ponce, Production Support Administrator.

Another idea was to hold a contest in which everyone at the plant was invited to come up with safety ideas and slogans. Winners were selected, and the winning slogans were displayed all over the plant so that everyone can read and see them on a daily basis.

#### A good beginning: SafeStart®

The Burlington plant has implemented the SafeStart safety awareness programme, which helps people develop a habit of thinking about what leads to accidents in the first place, and provides tools and techniques to prevent them.

SafeStart kicked off at Burlington when external consultants visited the plant and trained facilitators for two days. Facilitators are internal people from all departments and levels with good communication skills. Once trained, they were then able to lead groups of 20-25 people in half-day safety sessions. A large part of the agenda at these sessions is about people sharing their personal stories on accidents and near misses; what led to them and how they could be avoided.

"If we can incorporate this way of thinking into our everyday life at home and at work, it allows us to self-trigger; to work on habits and to analyse those close calls that had the potential to cause an injury," explains Steve De Rubeis, EHS Specialist.

#### **Safety nomination**

Safety awareness continues to improve year over year at Burlington. As a result, the plant was nominated for the Umicore Safety Award. "It was an honour to be nominated for this award as it comes from the people we work with," says Sean Gahagan, Account Manager. "It is not coming from somebody telling you what to do, but from our peers."



#### Great place to work



"My favourite Umicore value is openness: the willingness to give an honest opinion about things that can be improved."

Gordson Cheung, Burlington, Canada

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.

At group level we detected an excess rate of 2.6% in 2013 which was a significant improvement on the 2012 level of 4.3%. This means that, of the 4,461 readings from employees who have a workplace exposure to the metals mentioned above (excluding platinum salts), 118 individuals returned at least one reading that indicated a metal exposure that was above our target level. Most employees are tested at least twice a year. The most significant reductions came in the Energy Materials business group and were related to exposure to cobalt and nickel. This has been brought about through the systematic implementation of engineering improvements and workplace hygiene programmes at a number of sites in the Cobalt & Specialty Materials and Rechargeable Battery Materials business units.

In 2013 four employees were diagnosed with a platinum salt sensitization and either moved to a workplace with no platinum salt exposure or provided with workplace clothing and equipment that offers an even higher level of protection.

In 2013 a US National Toxicology Program study concluded that cobalt metal is presumed to have carcinogenic potential for humans. This more recent understanding of toxicity has led to a stricter classification. Umicore – together with industry groups – is participating in additional studies to look at what further initiatives might be required in the areas of workplace exposure and product stewardship. 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.



# "Although the impact of metals emissions increased compared to 2012 it remained well ahead of our Vision 2015 reduction target."

#### Carbon emissions

(See the charts on p. 19)

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 such as the Kyoto protocol and is 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 identifies

significant growth opportunities in industries that are linked to the response to these challenges, for example electrified cars, photovoltaics and recycling.

In terms of our operations we have chosen 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 is the Group objective to achieve by 2015 a 20% reduction in COequivalent 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 CO<sub>2</sub> 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 2013 we had achieved a 17% reduction compared to the 2006 benchmark year. This means that for equivalent production levels we emitted 17% less in carbon equivalent. This compares to a reduction of 12% that we had achieved by the end of 2012. The improvement in 2013 is almost

#### **Eco-efficiency**

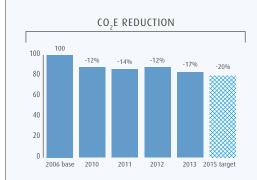
## Metal emissions

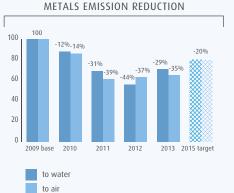
As part of our environmental management approach we have for many years been monitoring and taking steps to reduce emissions of metals into the environment – both to water and air. Our sites operate well within the established regulatory and permitting requirements in the countries where we are present.

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 seeks a 20% reduction in the environmental impact of the metals we emit compared to the levels emitted in 2009. Although our focus is on minimizing the emissions of those metals with the highest potential toxicity we are also taking 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 2013 metal emissions to air in terms of load were 12,533 kg. This represented a 25% decrease compared to 2012 and was almost exclusively due to lower emissions of zinc in our Zinc Chemicals business unit where we benefited from initiatives to improve bag filter management across all sites. Of all







entirely due to the Hoboken site in Belgium. Here, the raw materials mix plays a significant role in determining CO<sub>2</sub>e emissions with the recycling process for some residue streams requiring more energy and emitting more CO<sub>3</sub> equivalent than for other residue streams. The input mix in 2013 was positive in this regard. We also saw a reduction of emissions from the blast furnace due to adaptations made in previous years, the benefits of which are now being fully felt (see our 2012 report). We also made some further overall progress in the 24 other sites which, together with Hoboken, have the highest

emissions in the Group. For those sites that were part of Umicore at the end of 2010 and excluding the activity adjustment for measuring progress against the objective we have recorded a 4% reduction in absolute emissions since 2006, compared to a reduction of 3% registered at the end of 2012. Please see the environmental statement E3 for full details.

Next to the process improvements introduced at sites which have the highest levels of absolute emissions, our ability to reach the 20% reduction objective by 2015 depends on the evolution of both

the raw materials mix in Hoboken and the electricity mix as Europe moves away from lower-carbon sources. (see our 2012 report).

We continued to implement initiatives at some of our larger sites to promote a lower carbon footprint from employees' transportation. These include the use of electric vehicles at our sites in Olen. Hanau and Brussels. These zero-emission vehicles can be reserved by employees for use in work-related journeys or at weekends.

#### **CASE**



A new waste water treatment facility at Umicore's precious metals recycling plant in Hoboken will be able to remove 99% of any selenium and nitrate present in waste water. It puts Hoboken's water purification process among the most efficient in the industry.



"At Hoboken we are totally committed to meet or exceed the most stringent regulatory requirements for the removal of nitrate, selenium and other metals from waste water," says Peter Van Herck, Manager Environmental Affairs, Umicore Hoboken.

"With this in mind, we started experimenting with new water treatment technologies back in 2008, and conducted long-term tests of possible candidates. Finally we selected a biological process, developed by GE, which is totally in line with our environmental philosophy."

#### High success rate

The new water treatment facility will come on stream in February 2014 and can treat up to 160 cubic metres per hour of waste water.

"This low-energy, biological technology helps us meet the new, challenging regulations that came into force in Europe, and demonstrates our commitment to ecofriendly operations," adds Peter. "A further advantage is that we can re-use the metals captured from the waste water.'

#### Using nature's cleaners

The system is based on GE's Advanced Biological Metals Removal Process (ABMet) bioreactor technology. ABMet comprises naturally occurring, non-pathogenic microbes seeded in a bed of activated carbon that acts as a growth medium so that the microbes can create a biofilm.

Waste water passes through the biofilm and a reduction reaction occurs. Soluble selenium is converted into elemental selenium, which is then removed along with other metals and nitrate. A molasses-based product is used as a nutrient for the microbes. Other than this nutrient, the system is self-sustaining once established.

the metals emitted by Umicore, zinc has the lowest impact on human health and therefore the significantly lower emissions of zinc did not have a material effect on the overall environmental impact of our emissions to air which increased 4% vs 2012. This was due to higher emissions of metals with a more elevated impact such as cobalt and cadmium. The higher cobalt emissions were the result of higher activity levels in the Energy Materials activities. The higher cadmium emissions were partly due to a change in raw material feed in the Sancoale plant in India as well as process inefficiencies in the plant that are currently being addressed. Despite this year-on-year increase, in comparison to the reference year of 2009, by the end of 2013 the overall impact of our emissions to air had been reduced by 35% (37% at the end of 2012), which remains well ahead of the 20% reduction target which was defined as part of Vision 2015.

In 2013 metal emissions to water in terms of load were 5,560 kg. This represented a 2.5% decrease compared to 2012. The Catalysis, Energy Materials and Recycling business groups all registered a decrease in emission load which was partly offset by higher emissions of zinc to water in Performance Materials. In terms of impact of metal emissions to water, our emissions increased by 28% compared to 2012. This was mainly due to a higher level of arsenic and thallium emissions at the Hoboken plant. The commissioning of the new biological water treatment plant in Hoboken in 2014 is expected to to drive metal emission impacts to water down further in the coming years (see the case study on the opposite page). Despite this increase, in comparison to the benchmark year of 2009, by the end of 2013 the overall impact of our emissions to water had been reduced by 29% (44% at

the end of 2012), which remains well ahead of the 20% reduction target that was defined as part of Vision 2015.

For more information on the reduction efforts in each business group please see pages 26-41.

#### **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 requires 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 four years, Group R&D and Corporate EHS have been developing 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 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 is to test six products or services each year between 2012 and 2015 with each business unit submitting two cases to the study. This will provide us with a sustainability profile

#### **Eco-efficiency**



for a representative portion of our activities.

In 2013 six further cases were assessed in the business units Cobalt & Specialty Materials, Precious Metals Management, Electroplating, Platinum Engineered Materials, Zinc Chemicals and Jewellery & Industrial Metals. The sixteen cases assessed in the period 2011-2013 comprise products and services deployed in niche markets, 'flagship' products and services as well as a product under development. By the end of 2013 the number of products and services screened using the tool amounted to the equivalent of just above 10% of Umicore's revenues.

Through our membership of the Life Cycle Chair established by the University of Montreal (www.ciraig.com) we continued to seek scientific advice and peer review for our aproach. This included an assessment of the potential carbon savings of recycling metals at our Hoboken facility compared to mining.

In 2013, 41% of Umicore's incoming materials were of primary origin. 59% of the materials were from secondary origin or end-of-life products. These levels are comparable to 2012.

By June 2013, the second REACH registration deadline, Umicore had submitted another 21 registrations for 17 different substances to the European Chemicals Agency (ECHA). The files were either jointly prepared with other companies acting in consortia or by Umicore alone. About a third of all dossiers were updated in 2013 with additional information or newly available data. In total, the Umicore products sold that contain

substances that are on the REACH Candidate List account for less than 0.5% of Umicore's revenues. For comments on our on-going REACH compliance efforts please refer to Environmental note E6.

Umicore has calculated the upstream greenhouse gas (GHG) savings realized by the raw materials mix at our recycling facility in Hoboken, Belgium, compared to the equivalent amount of metals produced exclusively from primary production. Depending on the variations in the raw materials feed, going from end-of-life materials and industrial by-products to primary materials, the potential GHG savings of the Hoboken process varied from 657,000 tonnes of CO<sub>2</sub>e emissions in 2010 to 1,085,000 tonnes in 2011.



AH:

# "We established a new initiative called 'Powered by Umicore' to support student sustainable mobility projects in various universities."

#### 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.

Umicore's Purchasing & Transportation function was selected as the most appropriate entity in Umicore to carry out the first phase of intensive and systematic application of the charter. This process provided experience and learning to help the business units in their application of the charter.

In the course of 2013, our regional procurement centres 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). Several business units also defined their key suppliers and asked the selected suppliers to acknowledge the principles of the Sustainable Procurement Charter ('the charter').

The companies selected by the regional procurement centres included many suppliers of goods and services and some suppliers of raw materials (eg.metals). In total, 671 suppliers have now been selected, compared to 642 at the end of 2012. By the end of 2013, 84% of these 671 suppliers had formally acknowledged their adherence to the terms of the charter. In addition the business units selected 396 suppliers, of which 86% had formally acknowledged their adherence to the terms of the charter by the end of 2013. The supplier acknowledgement rate in the business units that sent the request for

adherence to the charter is now about the same as that of the regional procurement centres suppliers. The total spend with suppliers who adhered to the charter in 2013 is some € 800 million.

Umicore asked Ecovadis to assess the sustainability performance of 272 of the 1,067 suppliers highlighted above. The selection of those suppliers was made based on a risk assessment carried out by Ecovadis in relation to critical dependency, duration of relationship and spend with these suppliers. The result of the assessment is a score card with an overall score and



#### Stakeholder engagement

In June, the Umicore Precious Metals Refining operations in Hoboken, Belgium, received two important certifications regarding the sourcing of the materials that it recycles. It passed the Responsible Gold audit of the London Bullion Market Association. a leading trade association for the silver and gold industry. It was also recognised as a Conflict-free Smelter by the Electronics Industry Citizenship Coalition. Both recognitions uphold Umicore's commitment to conduct business honestly and ethically, and will further reinforce customer confidence in the origin of its materials.

a score for each of the four sustainability categories: environment, labour, fair business practices and supply chain. The scores ranged from 1 to 10 with 1 representing a high risk regarding sustainability issues.

Of the 272 selected suppliers, 57 suppliers did not respond to the questionnaire. Of the 215 received score cards, 152 companies had a score of 3 or 4, meaning that they have taken basic steps on sustainability issues. Only 4 companies had a score equal to or below 2, representing a high risk regarding sustainability issues. 55 companies scored, overall, higher than 4, meaning that they have "an appropriate sustainability management system" and 4 companies scored higher, showing advance practices on sustainability. As to the average score in each category, the suppliers attained the highest average score in environment, while scoring the lowest in promoting

sustainability in their own supply chain.

The Umicore Group has been assessed by Ecovadis and was scored 6.7, which classifies the company in the advanced category 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".

In the course of 2013 several business units launched a program with low-scoring suppliers to develop an action plan for improvement. With regard to the regional procurement centres, a number of improvement plans were put into action with suppliers to the Belgian, Brazilian and French regional procurement centres.

In order to increase awareness of sustainable procurement within the company a web-based

learning tool was made available on the newly-deployed My Campus platform in 2013. In 2013, 337 people participated in this e-learning module. In Brazil, a specific training programme was deployed over 11 on-site learning sessions. This resulted in 122 employees being trained on sustainable procurement.

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 successfully passed

an independent audit and were certified as "conflict-free smelters" in 2013 for their operations of the previous year by the London Bullion Market Association (LBMA) - see news items here. The Jewellery & Industrial Metals operations in Pforzheim and Bangkok were certified as part of the Responsible Jewellery Council's (RJC) Chain of Custody programme for three years. Similar independent audits are either underway or scheduled at two other Umicore operations.

In addition to existing policies and charters such as the Umicore Code of Conduct, Human Rights Policy and Sustainable Procurement Charter, in 2013 Umicore published a specific policy regarding "Responsible global supply chain of minerals from conflict-affected and high-risk areas".

www.umicore.com/ sustainability/stakeholders/ ConflictMineralsPolicy/ conflictMineralsPolicy.htm

#### **Local community**

Umicore's 2006-2010 objective in this area required all industrial sites to develop and implement a plan to address accountability to the local community. In the context of Vision 2015 it was 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. Some 65% of our sites had an engagement plan in place by the end of 2013. This was slightly higher than the level of 2012. In 2013, the number of sites





As part of its sustainability objectives, Umicore has developed a partnership with UNICEF to fund education projects. One of the projects receiving Umicore's support is in Jaipur, the capital of the Indian state of Rajasthan. Here, women and girls face harsh discrimination, resulting in a severe educational gender gap. The UNICEF programme aims to get girls into school and enable them to continue their studies. The programme also helps to improve the knowledge and skills of officials and teachers.

Much of the work involves community dialogue to change attitudes, by attending village meetings and bringing up the topic of village girls not being in school. Theatre, street games and puppet shows are also effective. Local community workers explain the advantages of education, for example how well-educated girls with jobs will be able to take better care of elderly parents later in life.

In the so-called tribal areas, where people are most marginalised and there are very few female teachers, UNICEF is working with master trainers who are training teachers to become more gender sensitive.

employing structured communications as part of these engagement plans with their local community remained stable. Depending on the size of the site, these communications 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 some 200 visits by members of the local community in 2013. Initiatives included the Ecomagie magic show on environmental awareness that was run in 100 regional schools as well as the sponsorship of the Antwerp Museum aan de Stroom among others. The site also supported the Engage+ initiative of the City of Antwerp to combat youth unemployment. The Olen site (Belgium) continued its programme of visits for local schools and neighbours "Umicore te kijk" and hence welcomed 1,300 visitors to an open event for Flemish Science Day and invited neighbours to observe a major SEVESO safety training exercise. The site also initiatied an art project called Glamuur in which local artists and school children

painted murals on the perimeter walls of the site. In Guarulhos (Brazil) we continued to engage with the local authorities regarding the issue of soil and groundwater pollution around the site and supported the "Better Life" projects for more than 100 disadvantaged children in the community. The Hanau site (Germany) hosted a number of internships for students in local schools. The site also registered a high level of employee participation in local sporting events such as the JP Morgan Corporate Challenge and Hanau City Run with Umicore being main sponsor of the latter. The site also provided support to the provincial Albert Schweitzer-Kinderdorf that is situated in Hanau. These establishments provide education to children who, for whatever reason, cannot grow up in their own families.

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

Umicore donated € 40,000 to support the relief efforts in the wake of the three natural disasters that struck the Philippines in late 2013: Typhoons Usagi and Haiyan, and the Bohol earthquake. Half of this amount went to Médecins sans Frontières.

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 € 1,044,840 in 2013 compared to € 1,016,860 in 2012 with some 15% of this amount coming in the form of volunteering and donations in kind (down from 23% in 2012 when there was a significant donation of materials for use in solar energy projects in Belgium, Benin, Congo and Tanzania). More information on the various business unit donations can be found in the business group review between pages 26 and 41 of this report.

In addition to the business units' contribution, the Group donated € 567,960, the vast majority of

#### **CASE**



Umicore works with WorldLoop to provide an environmentally sound solution for waste electronics collected and dismantled in Africa. The partnership was one of the finalists at the Belgian Business Awards for the Environment in the category 'international business cooperation'.



The jury at the Belgian Business Awards commented: "This project - based on solid economic environment-friendly logic makes it possible to break away from the negative image of trade relations between the North and the South and to promote the philosophy of the best of both worlds".

#### Efficient, environmentfriendly recycling

The partnership involves WorldLoop connecting local dismantling and sorting entrepreneurs with Umicore's best-in-class recycling technologies. The objective is to avoid the uncontrolled dumping of e-waste and its improper dismantling, burning and leaching, which causes environmental and health issues in the developing world.

The focus is on ICT material that has reached its end of use in the developing world. E-waste recycling facilities have been constructed in Kenya, Tanzania, Rwanda and Chile, accounting

for over 750 tonnes of e-waste. Of this, 50 tonnes of hazardous fractions have been sent to Europe to be treated using more efficient recycling processes with lower environmental impact than local treatment or landfill. This includes 25 tonnes of printed circuit boards shipped to Umicore's recycling facility in Hoboken. Umicore processes the waste and recovers precious and other metals, the value of which is reinvested to finance further collection and recycling.

#### Umicore walks the talk

Umicore donates its own used PCs to Close the Gap, a strategic partner of WorldLoop. Close the Gap collects computers from donor companies, refits them for use and then offers this IT equipment to socio-educational projects (such as schools and hospitals) in Africa. Once these PCs reach the end of their life, WorldLoop makes sure they are collected and dismantled by local recyclers and the hazardous fractions are transported back to Umicore... to be recycled.



#### Stakeholder engagement



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. We seek to channel most of these contributions to initiatives that have an educational focus or raise awareness of sustainable technologies.

In 2011 we entered into a threeyear partnership with UNICEF to support educational projects in different parts of the world. The initial projects that we are supporting are an initiative to improve the access to quality education for underprivileged girls in the Rajasthan province of India as well as the "Back to School" campaign in Haiti where we are funding the building of a school for child victims of the 2010 earthquake. You can read a case study on the UNICEF project in Rajasthan on the page 24.

We continued to support the initiatives of Entrepreneurs for Entrepreneurs (www.cfp.be) in the Philippines, Cambodia and Tanzania and Humasol's programmes for groups of engineering students to install solar energy in remote areas of Uganda and Senegal (www.humasol.be). We established a new initiative to support student sustainability projects in various universities. Called "Powered by Umicore", 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.

We made several donations to initiatives in the Philippines – where Umicore has a production site – to support the relief efforts following the devastation caused by typhoons Usagi and Haiyan.



### Catalysis

Catalysis plays a significant role in the abatement of global automotive emissions. Umicore provides automotive catalysts for gasoline and diesel light duty vehicles as well as for heavy duty diesel applications including trucks and other large vehicles. The business group also produces precious metals based compounds for use in the fine chemicals, life science and pharmaceutical industries.



会

While revenues in Catalysis were up, the profitability was impacted by a less favourable mix as well as costs related to the start up of various growth investments.



#### **Economic performance**

(See the charts on p. 27)

Revenues were up by 3% for the business group as a result of volume growth and the first time consolidation of Umicore Shokubai Japan, more than offsetting lower pass-through costs. Recurring EBIT was 19% lower due to a less favourable product and regional mix as well as costs related to new product introduction and infrastructure. Capital expenditures continued to increase as we invested in new production and technology capabilities. Overall R&D expenditure was

lower as a number of projects moved to commercialization.

In **Automotive Catalysts**, car production worldwide increased by 3% in 2013. Growth in China and the Americas more than offset a decrease in South Korea and Japan while the production level in Europe was stable year on year. Excluding the effect of the consolidation of Umicore Shokubai and lower pass through costs, Umicore's global catalyst revenues were up year on year. Margins, however, were negatively impacted by the above mentioned mix effects, costs related to the introduction

of heavy duty diesel catalysts and products for Euro 6 compliant light duty vehicles as well as the expansion of the technology development infrastructure.

After a decline in the first half of the year, European car production stabilized in the second half of the year and showed a modest year-on-year increase towards the end of the year. Full year production was at a similar level to 2012. The purchasing trend towards smaller vehicles continued and the share of diesel cars produced stabilized at around 45% of the total market. Umicore's sales volumes

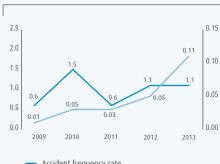
#### REVENUES (EXCLUDING METAL)



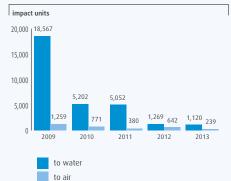
#### RECURRING EBIT & ROCE



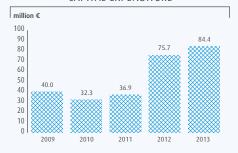
#### SAFETY PERFORMANCE



Accident severity rate



#### CAPITAL EXPENDITURE





#### METALS EMISSIONS



Catalysis

were in line with car production while revenues were lower due to a less favourable product mix.

North American car production was up 5%, with small and medium-sized vehicles gaining market share. Umicore's sales volumes followed the same trend while revenues grew slightly less due to the platform mix. In South America, car production was up 4% despite the slowdown observed at the end of the year. Umicore's sales volumes in the region grew in line with the market.

Overall Asian car production was up. In China car production grew 13% year on year. Umicore's catalyst revenues in China continued to grow faster than the market. In South Korea and Japan, car production was down by 2% and 4% respectively with lacklustre domestic sales in contrast with the success of Korean and Japanese production in overseas markets. Umicore Shokubai has improved its position with Japanese car manufacturers which resulted in additional global business awards.

Umicore inaugurated two dedicated production lines for heavy duty diesel catalysts in Florange, France, in 2013. The construction of a third line started towards the end of the year and should be completed towards the end of 2014. The construction of the HDD production facility in Suzhou, China, made good progress and will start production in the first half of 2014. New technology development centres were commissioned in Japan and Brazil and further progress was made in the new production capabilities in Onsan, South Korea, and in Suzhou, China, which are expected to come on stream in the first half of 2014. The facility in Bad Säckingen, Germany, with two new lines for the production of catalysts that meet the Euro 6 standard for light duty diesel vehicles became fully operational during 2013.



open in 2014, will manufacture the business unit's entire portfolio of precious metal-based catalysts and chemicals including advanced products such as ruthenium metathesis catalysts and palladium cross-coupling catalysts. The costs related to these development projects weighed on the overall performance of the business unit.

#### Great place to work

Although the Catalysis business group continued to report by far the best safety performance of all of our business groups, the performance in 2013 was not as strong as in 2012. The total of four lost time accidents and frequency rate of 1.1 accidents per million hours worked were the same as in 2012, while the severity rate was worse in 2013 (0.11 compared to 0.05 in 2012). This was due to a severe accident in the Hanau site, Germany. Both Automotive Catalysts and Precious Metals Chemistry continued to implement the SafeStart® safety approach to help reduce accidents to zero by 2015. The South Plainfield site in the US had achieved more than five years with no lost time accidents or recordable

The costs for the finalization and start-up of these new operations, as well as the higher depreciation charges that they bring, weighed on the profitability of the business unit in the second half of 2013.

In Precious Metals Chemistry, although sales volumes were well up compared to 2012, revenues were lower as a result of a less favourable product and regional mix.

Demand for precursors for both catalytic and non-catalytic applications was higher. The same trend was observed for products used in bulk chemical applications. In contrast, sales of organometallic

catalysts for the life science sector were lower. Sales of APIs (Active Pharmaceutical Ingredients) continued to show strong growth and sales started outside South America to customers in Asia and Europe and production capacity was therefore increased at the plant in Argentina. A pilot line for compounds used in MOCVD (Metal Organic Chemical Vapour Deposition) applications was started up in Germany. These compounds are mainly used in the production of higher-performance microprocessors. The construction of the new production facility in Tulsa, Oklahoma made good progress in 2013. This facility, which is set to



injuries to Umicore staff and no lost time accidents to contractors at the end of 2013, while the sites in Americana (Brazil), Auburn Hills (USA), Tsukuba (Japan) and Suzhou (China) had reached the three year milestone.

In terms of occupational health, no activities in the Catalysis business group involve an exposure to the five hazardous metals that are the focus of our Vision 2015 objective. The main occupational health issue for the Catalysis business is that of platinum salt sensitization potentially leading to occupational asthma. In 2013 two employees developed such a sensitization - the same number as in 2012. These employees resumed work in another part of their site where there was no platinum salt exposure.

#### **Eco-efficiency**

In terms of carbon emissions the Catalysis business group is the lowest emitter, accounting for a total of 12.5% of our CO<sub>2</sub> equivalent emissions in 2013 or 86,928 tonnes of CO<sub>2</sub> equivalent. This compares to 87,135 tonnes emitted in 2012.

Catalysis does not have an industrial profile that involves significant impact of metals on either water or air with both representing less than half a percent of the total group impact. The business units were able to reduce the overall load of metals emitted to air and water in 2013

#### Stakeholder engagement

The business units made further progress in deploying the Sustainable Procurement Charter. In 2012 the proportion of selected suppliers to whom the charter had been sent and who had signed up stood at 26%. By the end of 2013 this proportion had increased to

88%. The Automotive Catalysts business unit has a system in place of supplier audits that cover all major suppliers on a global basis with a frequency of every three years and focusing on quality, environment, health and safety issues.

In terms of accountability to the local community the business group contributed € 190,390 in charitable donations in 2013. Major projects included support for the SOS Children's Village and Umicare Schooling project in Port Elizabeth, South Africa and the Boai School for children with special educational needs in Suzhou, China. The Burlington site celebrated 20 years of support for the United Way – an organization that engages individuals and mobilizes collective actions to generate funds for those that are most vulnerable in the community. Over the past 20 years the site has donated half a million Canadian dollars to the United Way.

#### CASE



#### Catalysis

The need for clean air has never been greater. Regulators continue to tighten vehicle emission standards around the world. Umicore technologies are ensuring that these improvements happen.



The number of vehicles on our roads has grown enormously in recent years. Since the 1970's governments have introduced air quality standards to reduce the harmful effects of automotive emissions on human health and today almost all new cars produced in the world contain an automotive catalyst. In Europe the Euro VI standards for heavy duty diesel have been enforced since January 2014. A new legislation to reduce emissions of NO<sub>x</sub> (nitrogen oxides) in diesel cars by more than 50% will come into force in September 2014. It is likely that target emissions of soot particles in gasoline engines will also be introduced in a payt shace.

#### **New investments**

In 2013 Umicore commissioned a new production line for heavy duty diesel (HDD) catalysts in Florange, France. The construction of a second production line was also announced at the European Commission's Green Week on "Clean Air" held in Brussels in May. Plant manager Nicolas Clerc explained: "The demand for automotive catalysts is increasing

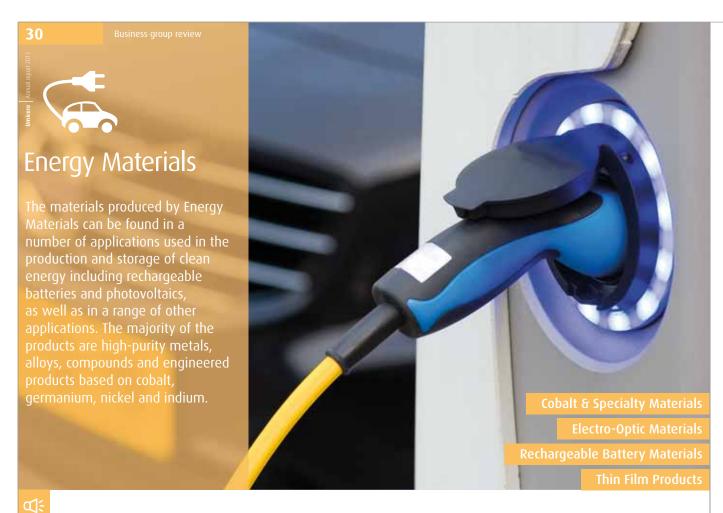
and, in response to that demand, Umicore is investing around the world. Here in France we will now be able to deliver high-quality products not only for cars but also for heavy duty vehicles".

Production also started in 2013 at Umicore's new automotive catalyst plant in Bad Säckingen, Germany. This facility will focus on producing particulate filters and lean NO<sub>x</sub> traps for diesel passenger cars.

#### A source of pride

Umicore produced its first automotive catalyst back in 1968. Since then its catalyst technology has removed billions of tonnes of pollutants, making our air safer to breathe and benefiting the environment. This is a source of great pride for the people who make the products. David Cunha, an operator at Umicore's Florange site, is particularly enthusiastic: "It's really exciting to work for Umicore. Everybody uses our products in everyday life, in their cars, even if they are not aware of it. It's very satisfying to work actively for a better environment and cleaner air."





# Revenues were well up and profitability started to recover as the benefits of cost reductions filtered through.



#### Economic performance

(See the charts on p. 31)

Revenues for Energy Material s were up 10%, primarily reflecting the growth in the Rechargeable Battery Materials and Cobalt & Specialty Materials business units. Overall profitability of the business group also benefited from the cost reduction measures that were initiated at the end of 2012.

Capital expenditure was significantly higher than in 2012 as a number of significant investments were made, notably in Rechargeable Battery Materials. R&D expenditure for the business group increased

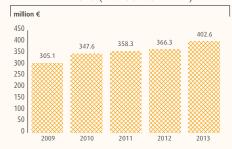
as the efforts to develop new generations of rechargeable battery materials intensified.

Revenues for the Cobalt & **Specialty Materials** business unit were up year on year, driven mainly by an increased contribution from cobalt and nickel refining and recycling. Earnings were impacted by lower average premiums as a result of increased competitive pressure in different end-markets. The ceramics and chemicals business recorded higher revenues, with an increase in sales volumes for both cobalt and nickel compounds more than offsetting lower premiums. Sales of metal carboxylates further increased due to the expansion of

the product portfolio and successful introduction of the products in new markets. Sales volumes in tool materials were flat year on year, as volume growth in Asia was offset by a decrease in demand from the European and North American construction markets.

At the end of 2013 the business unit acquired Palm Commodities International, a leading manufacturer and distributor of materials to the surface treatment industry in North America. This acquisition will enable Umicore to expand its reach into the North American plating market.

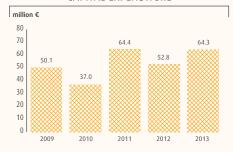
#### REVENUES (EXCLUDING METAL)



#### RECURRING EBIT & ROCE



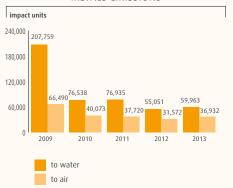
#### CAPITAL EXPENDITURE



#### SAFETY PERFORMANCE



#### METALS EMISSIONS



Go straight to the numbers

XLS

www.umicore.com/reporting/data

#### **Energy Materials**

In Rechargeable Battery Materials, sales volumes and revenues were up considerably. The strong demand for polymer cells used in high-end portable electronics, such as smart phones, tablets and ultrabooks, drove demand for high energy density cathode materials. Umicore's proprietary High Energy LCO technology and broad customer portfolio enabled the business unit to further strengthen its leadership position in this segment. Overall sales of NMC (nickel-manganese-cobalt) cathode materials were down year on year, as a result of lower demand for traditional notebook PCs which use the more standard NMC-grades. The demand for NMC-products used in automotive applications benefited from the gradual increase in sales of electrified vehicles. This trend is set to continue with more car OEMs launching new hybrid and electric models. Umicore successfully qualified for additional platforms which will further support its growth in this segment. The capacity investments for cathode materials in Korea and China were successfully completed in the course of 2013 as was the commissioning of the precursor plant in Korea.

In Electro-Optic Materials, revenues were down year on year mainly due to adverse market conditions in blank optics and the substrates activities. The effect of the downturn in revenues was mitigated by cost reduction measures that were initiated in 2012, selective price increases in certain segments and a higher contribution from the refining and recycling activities. The decrease of revenues in the germanium substrates business was largely attributable to a further deterioration in the terrestrial CPV (Concentrator Photovoltaics) market. Sales to the LED industry were also lower. Deliveries of space certified substrates were up as Umicore secured a number of

#### CASE





contracts with various customers in this segment. Within the substrate market, a migration is taking place to larger germanium wafers and Umicore is strongly positioned to benefit from this trend. The high purity chemicals business benefited from a strong increase in demand for Umicore's germanium tetrachloride used in optical fibres. Sales of finished optics were also higher year on year while demand for germanium blanks remained low in a highly competitive market.

In **Thin Film Products**, revenues increased compared to the previous year due to higher revenues for large area display applications. The overall business also benefited from the cost reductions that were initiated at the end of 2012. Sales volumes for ITO (Indium Tin Oxide) targets were up year on year driven by the success of the high efficiency rotary sputtering technology. The increased demand came mainly as a result of new investments in large area display production installations in Asia and retro-fitting of existing installations in the touch panel industry switching from planar to rotary targets. Lower revenues for optical evaporation materials reflected a somewhat slower demand, while demand from the micro-electronics industry remained largely stable year on year.

#### Great place to work

The safety performance of the Energy Materials business group improved further in 2013. Six lost time accidents were recorded compared to 9 in 2012. This represented a frequency rate of 2.0, compared to 3.0 in 2012. The severity rate for these accidents of 0.12 was higher than in 2012 (0.05). The business unit Rechargeable Battery Materials implemented a safety leadership program based on a behaviour-based



observation and intervention technique as part of its safety ACCE program (Awareness, Competence, Compliance, Excellence). As in 2012, three sites in Energy Materials had reached the landmark of five years without any lost time accidents or recordable injuries to Umicore staff and without lost time accidents to contractors: Dundee (UK), Fort Saskatchewan (Canada) and Hsinchu Hsien (Taiwan).

In terms of the metal exposure aspects of occupational health the main substances that represent a potential health risk in Energy Materials are arsenic, cobalt and nickel. There was a significant reduction in excess readings for cobalt and nickel in 2013 while the excess readings for arsenic also fell. This has been brought about through the systematic implementation of engineering improvements and workplace hygiene programmes. The work with regards to

the occupational health effects of indium tin oxide and workplace exposure reduction at the Providence plant continued in 2013.

#### **Eco-efficiency**

In terms of carbon emissions the Energy Materials business group accounted for 25.5% of our CO. equivalent emissions in 2013 or a total of 176,723 tonnes, compared to 169,995 tonnes in 2012. The main reason for the increase was higher production volumes in Rechargeable Battery Materials. Of all the sites in Energy Materials the Olen site (Belgium) and Cheonan site (South Korea) contribute the highest level of emissions. Since its inclusion in the Flemish Benchmarking Covenant in 2003 the Olen site has implemented a number of energy efficiency initiatives that apply the best international standards.



A product family from Cobalt & Specialty Materials was part of the third wave of product sustainability assessments conducted using Umicore's APS tool. This is part of the on-going process to assess the sustainability of a representative sample of Umicore's products and services (see p. 20-21).

In terms of metal emissions, Energy Materials' emissions to air were up by 1.6% in load compared to 2012. In terms of impact, an increase of 17% was recorded compared to 2012, The main reasons for the increase was a higher level of production in the Cobalt & Specialty Materials and Rechargeable Battery Materials business units. Despite this activity-related increase the emission impact was 45% below that of the benchmark year of 2009. Water emission load was down 22.5% year-on-year while emissions impact increased by 9% due to an increase in silver emission at the Olen plant. Impact levels have shown a drop of 71% compared to the benchmark year of 2009.

#### Stakeholder engagement

The business units made further progress in deploying the Sustainable Procurement Charter. In 2012 the proportion of selected suppliers to whom the charter had been sent and who had signed up stood at 9%. By the end of 2013 this proportion had increased to 84%. The Cobalt & Specialty Materials business unit has further refined its sustainable supply chain approach and engaged a third party auditor. The framework includes several tools to screen these suppliers on a regular basis and to mitigate the risks or uncertainties related to their supply chain practices.

The business units in Energy Materials contributed a combined total of € 132,040 in charitable donations in 2013. A sizeable proportion of this amount was related to support by Cobalt & Specialty Materials for a schooling project in Lubumbashi, Democratic Republic of Congo, which provides education to 800 children between the ages of 6 and 14. The business unit also provided support for the relief efforts following the typhoons Usagi and Haiyan that hit the Philippines in the autumn. Other initiatives included support for the Youchouang educational fund in Jiangmen and a bursary for a high school technology student in Quapaw. The Fort Saskatchewan site was recognized by the Alberta authorities as a Envirovista Champion for its environmental performance.



### Performance Materials

Performance Materials applies its technology and know-how to the unique properties of metals, offering materials that enable its customers to develop better, more sophisticated and safer products. Its zinc products are renowned for their protective properties while its precious metals-based compounds and materials are essential for applications as diverse as high-tech glass production, electrics and electronics. Performance Materials is organized around five business units.



**U**:

# Although revenues were down slightly, profits were at similar levels to the previous year as cost reduction measures started to have a positive impact.



#### Economic performance

(See the charts on. p. 35)

Revenues in Performance Materials were 3% lower year on year.
Recurring EBIT was at the same level as 2012 with the benefits of the cost reduction measures that were introduced during the year counterbalancing the economic headwinds experienced in several business units. Capital expenditures were at similar levels to 2012 while R&D spending was down slightly.

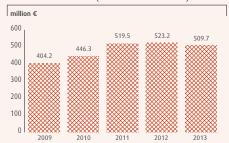
Sales volumes and revenues in **Building Products** were flat year

on year. Sales started particularly slowly in the first part of the year due mainly to the long and harsh winter in Umicore's main European markets. Although there was some improvement in certain markets, activity levels in the European building industry remained subdued. Demand for zinc building materials in the newer markets outside Europe showed further growth. The share of surfacetreated products in the mix grew further and construction of the new plant in Viviez, France, for surfacetreated products neared completion. Measures to reduce costs and improve competiveness were

implemented through the business in late 2013.

In **Electroplating**, revenues were stable with higher sales volumes in all product categories compensating for pressure on premiums in some segments. Sales for decorative applications such as fashion jewellery were up and the market remained supportive throughout the year. Sales of electrolytes used in the manufacture of printed circuit boards were well above those of 2012 while sales of non-precious metals based products for wear protection applications also increased. Competitive price pressure

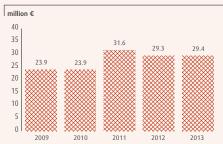
#### REVENUES (EXCLUDING METAL)



#### RECURRING EBIT & ROCE



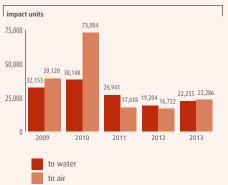
#### CAPITAL EXPENDITURE

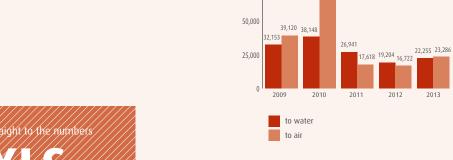


#### SAFETY PERFORMANCE



#### METALS EMISSIONS





# Performance Materials

was most evident in the market for less complex precious metals based compounds. Sales of Umicore's silver plating solutions for LEDs continued to benefit from growing customer demand, particularly in Asia (see case study on page 12).

#### In Platinum Engineered

Materials, revenues were flat while the business unit benefited from the cost reduction measures and production efficiency improvements. Demand for glass industry applications was at a similar level to 2012 with an uplift in revenues in the second half, particularly in the technical glass market. Revenues for performance catalysts remained at a high level, driven by a solid demand for platinum-based ammonia oxidation catalyst gauzes and getters used in the fertilizer and chemical intermediates industries

In **Technical Materials**, revenues were up slightly year on year and the business unit benefited from cost reduction measures implemented during the year. Overall demand for brazing alloys remained subdued. This was primarily due to the recession in Europe and intensified competition from local players in China. Sales of contact and power technology materials were stable and there was little change to demand patterns from the electrical equipment industry. Order levels for sealing materials used in medium voltage applications as well as materials used in energy-efficient lighting picked up during the year. The business unit implemented a streamlining of its product offering in China towards the end of the year.

**Zinc Chemicals'** revenues were at similar levels to the previous year. The availability of zinc containing residues remained low and, in combination with a lower zinc price, this led to lower recycling margins. Demand for fine zinc powders



used in anti-corrosive paint was lower and the regional mix was less supportive to margins. Sales of materials for chemical applications were flat. In Europe, sales volumes for zinc oxide were down due to lower order levels from the tyre and chemical industries. This was partly compensated by higher sales for feed-grade materials and ceramics applications. Sales volumes of zinc powders used in primary batteries increased. The production facility in Australia was closed in December with production capacity in Malaysia being increased to cater for demand from customers in Asia Pacific.

In Element Six Abrasives (a 40% associate) sales volumes and revenues were lower year-on-year. In Hard Materials, challenging conditions persisted in the markets for mining and wear parts. Revenues for Oil & Gas were ahead of the previous year with the uplift being driven mainly by the introduction of new products while revenues for Advanced Materials improved in the second half as a result of a pick-up in sales of products used in precision machining. In 2013, Element Six Abrasives closed its Advanced Materials plant in South Africa and opened the world's largest and most sophisticated synthetic diamond research and development facility the Global Innovation Centre (GIC) at Harwell, near Oxford.

## Great place to work

The safety performance of the Performance Materials business group was slightly better than the Umicore average. Nine lost time accidents were recorded compared with 10 in 2012. This represented a frequency rate of 2.00 and severity rate of 0.09. Six of the 9 lost time accidents occurred in the 7inc Chemicals business unit The business unit continued to



implement and improve its 'safety for a better life' programme with active involvement of all staff under the guidance of a safety committee. Key elements of the programme include safety observation tours involving the business unit leadership team, training and the implementation of standards on key safety aspects. At the end of 2013 the site in Vicenza (Italy) had achieved more than five years with no lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site while the site in Vilvoorde (Belgium) had achieved the three vear milestone.

In terms of the metal exposure aspects of occupational health the overall excess readings for Performance Materials was well below the Umicore average at 0.7%. This represented a decrease from the level of 1.4% in 2012. The trend towards cadmiumfree products coupled with even

more stringent workplace controls continues to drive the reduction in excess cadmium readings, primarily in the Technical Materials business unit.

# **Eco-efficiency**

In terms of carbon emissions the Performance Materials business group accounted for a total of 23% of the Group's CO. equivalent emissions in 2013 or 162,017 tonnes of CO<sub>2</sub> equivalent. This compares to 158,417 tonnes in 2012. The emissions are spread over around 30 industrial sites with those in Zinc Chemicals accounting for the majority of the business group total.

Products from Zinc Chemicals, Electroplating and Platinum Engineered Materials were part of the third wave of product sustainability assessments conducted using Umicore's APS tool. This is part of the on-going process to assess the sustainability of a representative sample of Umicore's products and services (see p. 20-21).

In terms of metal emissions. Performance Materials' emissions to air were down by 29% in load compared to 2012. This decrease is mainly due to lower emissions of zinc in the Zinc Chemicals business unit where we benefited from initiatives to improve bag filter management across all sites. In terms of impact an increase of 39% was recorded compared to 2012 due to higher cadmium emissions linked to a change in raw material feed in our Sancoale plant in India as well as process inefficiencies in the plant that are currently being addressed. At the end of the year a 41% reduction had been achieved compared to our benchmark year of 2009. Water emission loads and impact increased by 16% compared to 2012 due to higher zinc emissions at the Viviez plant. At



year-end the emissions impact was 31% below that of the benchmark year of 2009.

#### Stakeholder engagement

The business units made further progress in deploying the Sustainable Procurement Charter. In 2012 the proportion of selected suppliers to whom the charter had been sent and who had signed up stood at 38%. By the end of 2013 this proportion had increased to 86%.

In terms of community engagement, the soil remediation project close to the Building Products operation in Viviez made further progress in 2013. The project was visited by several groups including local residents and the media and Umicore worked with the public authorities (national and municipal) to consolidate a public road to give access to the project. Overall, the business units in Performance Materials contributed € 163,610 in charitable donations in 2013. This was the result of numerous actions at the 30 sites that are part of these business units. Examples include support for the Metallurgy Museum in Liège by the Angleur site (Belgium), contributions to the St Jude Children's Hospital by the site in Attleboro (USA) and providing work experience opportunities for school children at the site in Vienna (Austria).

#### CASE



Umicore Technical Materials business line BrazeTec delighted its customers in 2013 with the launch of BlueBraze. This innovative silver brazing alloy has a 10% lower proportion of silver, which gives customers a significant cost reduction.



It has always been regarded as an undisputable fact that if the silver content of a brazing alloy is reduced, the brazing temperature increases – with negative cost and environmental consequences. But the BrazeTec business line decided to re-question this fact by addressing it through fresh eyes.

#### An innovative spark

A combined R&D team of Technical Materials in Hanau (Germany) and Group R&D in Olen (Belgium) came together to share "out-of-the-box" ideas. Collaboration sparked innovation. A number of interesting possibilities were put on the table, and the most promising idea was sent for trials. After an intense period of testing, a first silver brazing alloy with lower silver content and a melting range comparable to existing alloys was developed.

This innovative new brazing alloy was launched under the product

family name BlueBraze at the Joining Cutting Surfacing international trade fair in Essen, Germany in mid-September to widespread amazement from customers and competitors. "We always dreamed of developing and launching this kind of product," says Hartmut Schmoor, Business Line Manager BrazeTec. "None of our competitors has something similar. BlueBraze created a big stir in Essen."

#### Advantages for everyone

The reason for the commotion is that compared to conventional brazing alloys, BlueBraze has 10% less silver, which leads to significant cost and environmental benefits. At the same time, Umicore's engineers ensured that the quality and properties of this new product remained at the same high level as conventional alloys. It is the first time that a brazing alloy manufacturer has managed to reduce the level of silver

# Performance Materials

significantly while maintaining all existing properties. BlueBraze also fully complies to RoHS and REACH.

For customers using BlueBraze the product offers a significant cost reduction through the reduced silver content, and more rods per kilogram due to a lower density of substitute metals. Additionally, BrazeTec's innovative brazing alloy offers more planning certainty as a result of reduced customer exposure to silver price fluctuations.

BlueBraze is also sustainable – BrazeTec sources a large part of silver for brazing alloys from its inhouse precious metals recycling. By both reducing the proportion of silver in BlueBraze alloys and using recycled sources BrazeTec is helping save precious resources.

#### Ambitious plans

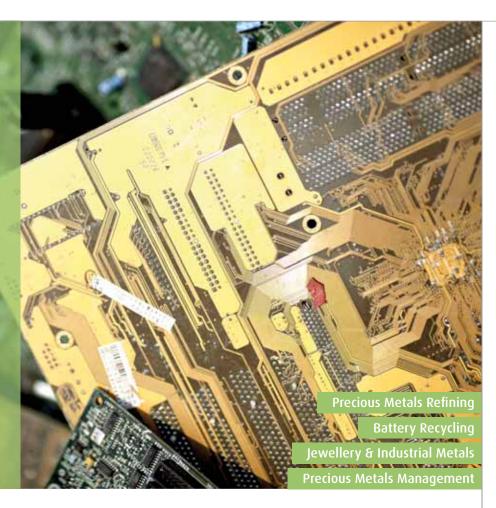
BlueBraze alloys are suitable for use in the HVACR industry (heating, ventilation, air conditioning and refrigeration). Examples of applications inclu de the production of stationary and mobile air conditioning systems as well as refrigerators, freezers and compressors.

"An ambitious plan has been developed to sell considerable volumes of BlueBraze over the next five years – significantly increasing Umicore's sales of silver brazing alloys," adds Hartmut. "Production will start in Hanau with only minor modifications to the manufacturing equipment necessary and a rollout to other Technical Materials sites will be considered in a later stage."

Umicore Amual lepont 2013

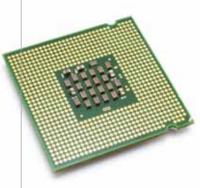
# Recycling

Recycling treats complex waste streams containing precious and other non-ferrous metals. The operations can recover some 20 of these metals from a wide range of input materials ranging from industrial residues to end-of-life materials. Recycling is unique in the range of materials it is able to recycle and the flexibility of its operations.



**U**:

# Although lower metal prices led to lower profitability, the supply environment remained positive and the return on capital continued to be the highest of all our businesses.



#### **Economic performance**

(See the charts on p. 39)

Recycling revenues and recurring EBIT were down 13% and 23% respectively as a result of a sharp drop in metal prices. Lower demand in certain end-markets of Jewellery & Industrial Metals and a lower contribution from its recycling activities also had a negative impact on revenues and performance of the business group. Capital expenditure was well up compared to 2012, as a result of increased investments in the Hoboken plant

as well as investments in silver recycling and refining in Germany and Thailand. R&D spending stayed at similar levels to those of 2012.

#### In Precious Metals Refining,

revenues decreased year on year as a result of the severe decline in metal prices. Despite a second maintenance shutdown of the Hoboken smelter, the business processed higher volumes than in 2012 leading to higher income from refining charges.

In industrial by-products, processed volumes increased compared to

the previous year driven by higher arrivals of residues from the nonferrous metal industry. While this market segment has become more competitive, Umicore managed to secure additional supply streams and expand its client portfolio. The intake of end-of-life materials was down year on year. The lower availability of electronic scrap reflected increasing competition, particularly in the market for less complex materials. Umicore remained well positioned in the high-end of the market. The supply volumes and commercial conditions of spent automotive catalysts remained

# Recycling

subdued, while Umicore continued to position itself strongly on the market for industrial catalysts.

With the exception of palladium, metal prices were substantially down compared to the previous year. For some precious metals the impact on Umicore' earnings was partly mitigated as a result of Umicore having secured longer term pricing in previous periods. Lower spot prices for certain specialty metals, such as selenium, tellurium, ruthenium and iridium, which cannot be hedged, continued to have an impact on margins.

The investments to debottleneck the Hoboken plant made good progress with the second phase of the upgrade and expansion of the sampling facility and the investments to further enhance the environmental performance of the plant all nearing completion. In line with the strategy to grow its recycling activities, Umicore announced its intention to expand the treatment capacity in Hoboken to 500,000 tonnes a year - an increase of some 40%. Umicore engaged with the authorities to obtain the necessary permits (see case study on page 40).

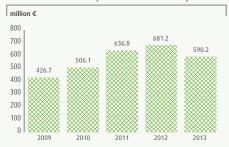
Management decreased year on year. This was mainly a consequence of a lower contribution from the trading activity, which was impacted by unfavourable price volatility and lower metal prices. Demand for investor bars increased in 2013 as lower gold and silver prices presented an attractive entry point for some investors. Physical demand for precious metals remained largely stable, with a higher demand for silver used in industrial applications and palladium for the automotive industry

compensating for a lower industrial

demand for platinum.

Revenues in **Precious Metals** 

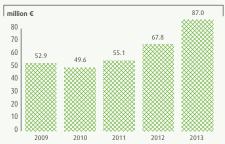
#### REVENUES (EXCLUDING METAL)



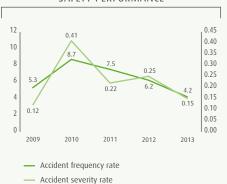
#### RECURRING EBIT & ROCE



#### CAPITAL EXPENDITURE



#### SAFETY PERFORMANCE



#### METALS EMISSIONS



Go straight to the numbers



/www.ximicore/com/reporting/data

#### CASE



Two key installations
The plan entails investments
of around € 100 million over
two years, primarily to enhance
the capabilities of the smelter and

#### Sustainable growth



#### The Jewellery & Industrial Metals

business unit recorded lower revenues year on year, primarily as a result of a lower contribution from the recycling activities. Refining volumes and revenues in Europe were down compared to the previous year, as a sharp decline in precious metal prices reduced the overall availability of gold and silver containing residues with the market for gold scrap showing the most significant contraction. Umicore's silver recycling activities in Thailand continued to grow and capacity enhancements are being made to fulfil demand. The expansion of silver recycling capacity in Pforzheim, Germany, progressed according to plan and production start-up is anticipated for the second half of 2014. Sales for silver-based industrial applications were also lower year on year. Sales of products to the jewellery industry were somewhat lower than in the previous year in both the luxury and silverbased fashion segments. Lower metal prices did encourage investor demand for gold and silver bars,

while the order levels for silver coin blanks from the German market were down year on year.

In **Battery Recycling**, Umicore successfully strengthened its position with (H)EV manufacturers for the processing of used rechargeable batteries. A number of technical enhancements were made to the UHT (Ultra High Temperature) smelter based on the results of the testing campaigns for spent batteries and other supply streams. These technical modifications should enable Umicore to further improve its processes and operational efficiency in this long term market development opportunity.

## Great place to work

While the Recycling business group continued to account for a high percentage (43%) of the total lost time accidents in Umicore, the total number of accidents decreased sharply in 2013, with 15 lost time accidents compared to 23 in 2012.

# Recycling

The business group's accident frequency (4.20 vs 6.24) also showed a marked improvement, while accident severity (0.15 vs 0.25) was also better. The Precious Metals Refining business unit has adopted the SafeStart® programme to drive safety improvements, particularly at the Hoboken site where it is also deploying a SafeMap® leadership training for all its managers and supervisors. The business unit Jewellery & Industrial Materials finalised the implementation of a safety programme focusing on four axes: roles and responsibilities, standards and training, safety dialogues, incident investigation.

In terms of the metal exposure aspects of occupational health the Recycling business performed better than the Umicore average with an excess rate of 0.8%. The main substances that represent a potential health risk in Recycling are lead, arsenic, nickel, cobalt and cadmium. No excess readings were detected for nickel or cobalt. The excess rate for cadmium was 0.7%, compared to 2.5% in 2012. The excess rate for arsenic was stable while there was a slight increase in excess rate for lead from 0.6% to 1.0%. Two employees were diagnosed with a platinum salt sensitization and were provided with workplace clothing and equipment that offers an even higher level of protection.

#### **Eco-efficiency**

The Recycling operations accounted for a total of 39% of the Group's  $\rm CO_2$  equivalent emissions in 2013 or 267,678 tonnes of  $\rm CO_2$  equivalent. This compares to 285,879 tonnes in 2012. The improvement in 2013 is almost entirely due to the Hoboken site in Belgium. Here, the raw materials mix plays a significant role in determining  $\rm CO_2$  emissions with the recycling process for some residue streams requiring more energy

and emitting more CO<sub>2</sub> equivalent than for other residue streams. The input mix in 2013 was positive in this regard. We also saw a reduction of emissions from the blast furnace due to adaptations made in previous years, the benefits of which are now being fully felt.

The products and services from Jewellery & Industrial Metals and Precious Metals Management were included as part of the third wave of product sustainability assessments conducted using Umicore's APS tool. This is part of the ongoing process to assess the sustainability of a representative sample of Umicore's products and services (see p. 20-21). The Precious Metals Refining operation in Hoboken conducted a peer-reviewed assessment of the potential carbon savings of recycling metals at the facility compared to mining. A summary of the results can be found on p. 21.

Recycling's emissions to air in terms of load were down compared to 2012. In terms of impact, a decrease of 7% was recorded compared to 2012 due to lower emissions of arsenic at the Hoboken facility. Emission impact was down 26% compared to the 2009 baseline. While water emission loads decreased compared to 2012, in terms of impact emissions were 35% higher than the levels of 2012 This was mainly due to a higher level of arsenic and thallium emissions at the Hoboken plant. The commissioning of the new biological water treatment plant in Hoboken in 2014 is expected to drive metal emission impacts to

water down further in the coming years (see the case study on page 20). At year-end the emission impact stood at 25% above those of the benchmark year of 2009.

## Stakeholder engagement

Umicore Precious Metals Refining continued to implement strict supplier checks using an in-house system called Business Partner Screening (BPS) which covers all suppliers of raw materials. We also took further steps to provide comfort to our customers with regards to the conflict-free nature of the gold we recycle and produce. In Precious Metals Refining we secured conflict-free smelter status following an audit by the London Bullion Market Association (LBMA) of our processes and supply streams in Hoboken and Guarulhos while a similar process was completed by Jewellery & Industrial Metals operations in Bangkok and Pforzheim together with the Responsible Jewellery Council (RJC).

In 2013 the sites in the Recycling business group contributed a total of € 558,800, with by far the main contributor to this total being the site in Hoboken, Belgium. Initiatives included the Ecomagie magic show on environmental awareness that was run in 100 regional schools as well as the sponsorship of the Antwerp Museum aan de Stroom and support for the Casa Blanca festival in nearby Hemiksem. The site also supported the Engage+ initiative of the City of Antwerp to combat youth unemployment. Umicore Precious Metals Refining further developed its partnership with WorldLoop to provide an environmentally sound solution for waste electronics collected and dismantled in Africa. The partnership was one of the finalists at the Belgian Business Awards for the Environment in the category 'international business cooperation'. You can read a case study of this partnership on page 25.

**4**15



In 2013, the Jewellery & Industrial Metals operations in Pforzheim, Germany, received conflict-free smelter status from the Responsible Jewellery Council (RJC). The operation is the first German precious metals refiner to have been granted both the RJC certified membership and, as a next step, this highly regarded Chain of Custody certification. "We are proud to set an example as the first German supplier on the precious metals markets that offers fine gold o certified origin from conflict-free and ethically responsible sources", explain Dietmar Becker, Senior Vice-President of the business unit.

# **Economic statements**

# **Group key figures**

#### **KEY FIGURES**

(in million EUR unless stated otherwise)	Note	2009	2010	2011	2012	2013
Turnover		6,937.4	9,691.1	14,480.9	12,548.0	9,819.3
Revenues (excluding metal)		1,723.2	1,999.7	2,318.6	2,427.4	2,390.0
Recurring EBITDA	F9	262.7	468.7	553.0	524.1	462.6
Recurring EBIT	F9	146.4	342.5	416.1	372.1	304.0
of which associates	F9	(6.1)	30.1	22.9	22.2	11.8
Non-recurring EBIT	F9	(11.4)	(9.1)	1.0	(46.7)	(43.4)
IAS 39 effect on EBIT	F9	6.2	(9.4)	15.6	3.2	(0.5)
Total EBIT	F9	141.2	324.0	432.7	328.6	260.0
Recurring EBIT margin (in %)		8.9	15.6	16.9	14.4	12.2
Return on Capital Employed (ROCE) (in %)	F31	8.1	17.5	18.6	16.7	13.6
Average weighted net interest rate (in %)	F11	3.9	3.8	3.7	1.9	1.6
Effective recurring tax rate (in %)	F13	20.7	19.1	19.9	20.6	21.3
Recurring net profit, Group share	F9	81.9	263.4	304.6	275.2	218.0
Result from discontinued operations, Group share		(4.2)	0	(0)	0 //	0
Net profit, Group share	F9	73.8	248.7	325.0	233.4	179.0
R&D expenditure	F9	119.5	119.2	136.7	149.0	140.6
Capital expenditure	F34	181.6	156.6	196.2	235.7	279.6
Net cash flow before financing	F34	258.4	(68.2)	308.6	150.3	185.9
Total assets of continued operations, end of period		2,826.7	3,511.6	3,713.2	3,667.9	3,512.3
Group shareholders' equity, end of period		1,314.2	1,517.0	1,667.5	1,751.7	1,677.1
Consolidated net financial debt of continued operations, end of period	F24	176.5	360.4	266.6	222.5	215.0
Gearing ratio of continued operations, end of period (in %)	F24	11.4	18.6	13.4	11.0	11.1
Average net debt / recurring EBITDA (in %)		94.0	54.3	59.8	47.7	44.2
Capital employed, end of period	F31	1,781.1	2,181.8	2,168.8	2,259.4	2,233.6
Capital employed, average	F31	1,797.7	1,961.6	2,233.0	2,224.5	2,241.3

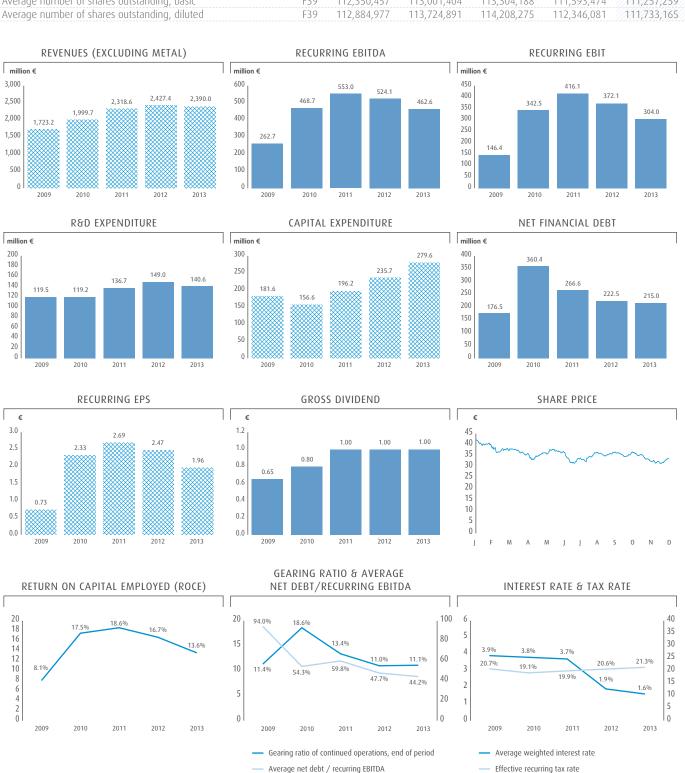
The application of the R&D and Capex definitions have been reviewed and figures have been restated for comparability reasons. The new definitions are explained in the glossary p. 181-182.

# DATA PER SHARE

(in EUR / share)	Note	2009	2010	2011	2012	2013
Earnings per share						
Recurring EPS	F39	0.73	2.33	2.69	2.47	1.96
EPS adjusted excluding discontinued operations	F39					
basic	F39	0.69	2.20	2.87	2.09	1.61
diluted	F39	0.69	2.19	2.85	2.08	1.60
EPS including discontinued operations	F39					
basic	F39	0.66	2.20	2.87	2.09	1.61
diluted	F39	0.65	2.19	2.85	2.08	1.60
Gross dividend		0.65	0.80	1.00	1.00	1.00
Net cash flow before financing, basic	F34	2.30	(0.60)	2.72	1.35	1.67
Total assets of continued operations, end of period		25.13	30.93	33.53	32.78	32.00
Group shareholders' equity, end of period		11.68	13.36	15.06	15.66	15.28
Shareprice						
High		24.32	40.37	40.09	44.12	42.12
Low		11.89	21.19	25.35	32.30	31.54
Average		17.75	28.58	34.21	38.57	35.72
Close		23.40	38.92	31.87	41.69	33.96

#### **NUMBER OF SHARES**

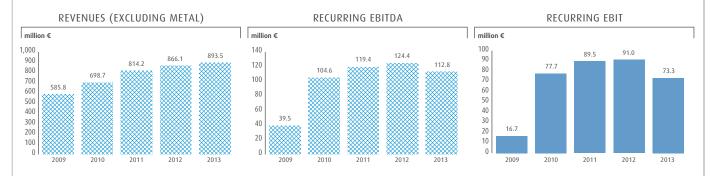
	Note	2009	2010	2011	2012	2013
Total number of issued shares, end of period	F39	120,000,000	120,000,000	120,000,000	120,000,000	120,000,000
of which shares outstanding	F39	112,493,803	113,523,353	110,756,062	111,886,512	109,771,339
of which treasury shares	F39	7,506,197	6,476,647	9,243,938	8,113,488	10,228,661
Average number of shares outstanding, basic	F39	112,350,457	113,001,404	113,304,188	111,593,474	111,257,259
Average number of shares outstanding, diluted	F39	112,884,977	113,724,891	114,208,275	112,346,081	111,733,165

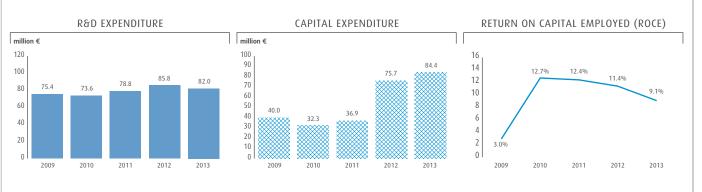


# Catalysis key figures

(in million EUR unless stated otherwise)	2009	2010	2011	2012	2013
Total turnover	1,155.7	1,548.3	1,932.0	1,871.9	2,020.2
Total revenues (excluding metal)	585.8	698.7	814.2	866.1	893.5
Recurring EBITDA	39.5	104.6	119.4	124.4	112.8
Recurring EBIT	16.7	77.7	89.5	91.0	73.3
of which associates *	(7.1)	4.8	5.7	10.5	2.5
Total EBIT	13.2	72.4	96.8	83.8	73.7
Recurring EBIT margin (in %)	4.1	10.4	10.3	9.3	7.9
R&D expenditure	75.4	73.6	78.8	85.8	82.0
Capital expenditure	40.0	32.3	36.9	75.7	84.4
Capital employed, end of period	554.4	640.3	768.2	795.5	809.5
Capital employed, average	558.5	611.3	718.7	797.6	804.6
Return on Capital Employed (ROCE) (in %)	3.0	12.7	12.4	11.4	9.1
Workforce, end of period	1,903	1,921	2,182	2,281	2,340
of which associates *	241	225	239	161	167

<sup>\*</sup> Automotive Catalysts: Ordeg Korea, ICT Co. Japan (until September 2012), ICT Inc. USA (until September 2012)

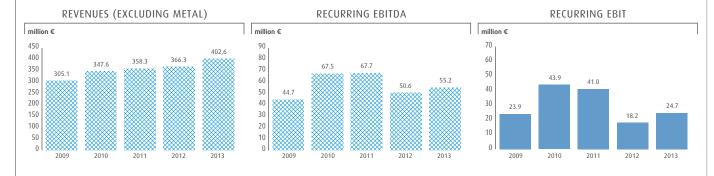


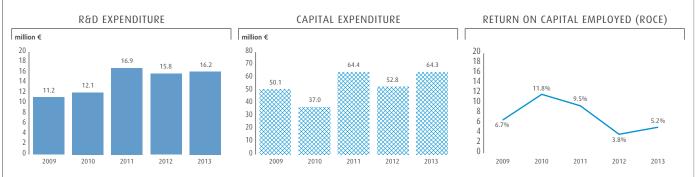


# **Energy Materials key figures**

(in million EUR unless stated otherwise)	2009	2010	2011	2012	2013
Total turnover	541.4	702.3	729.3	763.7	825.7
Total revenues (excluding metal)	305.1	347.6	358.3	366.3	402.6
Recurring EBITDA	44.7	67.5	67.7	50.6	55.2
Recurring EBIT	23.9	43.9	41.0	18.2	24.7
of which associates *	7.4	5.7	6.3	4.2	2.7
Total EBIT	31.7	43.1	34.2	(11.3)	21.4
Recurring EBIT margin (in %)	5.4	11.0	9.7	3.8	5.5
R&D expenditure	11.2	12.1	16.9	15.8	16.2
Capital expenditure	50.1	37.0	64.4	52.8	64.3
Capital employed, end of period	346.2	390.1	457.4	476.3	470.2
Capital employed, average	353.9	371.5	430.2	475.2	476.2
Return on Capital Employed (ROCE) (in %)	6.7	11.8	9.5	3.8	5.2
Workforce, end of period	2,879	3,035	3,033	2,933	2,884
of which associates *	1,232	1,314	1,206	1,057	1,056

<sup>\*</sup> Cobalt & Specialty Materials: Ganzhou Yi Hao Umicore Industries Co. Ltd., Todini and Co.; Rechargeable Battery Materials: Jiangmen Chancsun Umicore Industry Co. Ltd., beLife

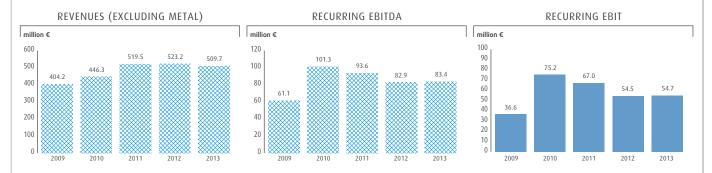


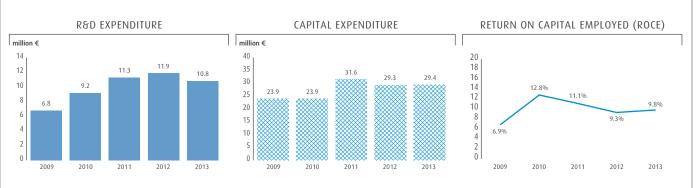


# Performance Materials key figures

(in million EUR unless stated otherwise)	2009	2010	2011	2012	2013
Total turnover	899.4	1,296.3	1,618.4	1,508.4	1,388.4
Total revenues (excluding metal)	404.2	446.3	519.5	523.2	509.7
Recurring EBITDA	61.1	101.3	93.6	82.9	83.4
Recurring EBIT	36.6	75.2	67.0	54.5	54.7
of which associates *	0.8	23.2	13.4	9.9	9.1
Total EBIT	38.5	78.6	65.1	57.1	24.9
Recurring EBIT margin (in %)	8.9	11.7	10.2	8.5	8.9
R&D expenditure	6.8	9.2	11.3	11.9	10.8
Capital expenditure	23.9	23.9	31.6	29.3	29.4
Capital employed, end of period	534.1	612.5	572.0	572.9	504.8
Capital employed, average	533.8	589.7	603.9	587.3	555.5
Return on Capital Employed (ROCE) (in %)	6.9	12.8	11.1	9.3	9.8
Workforce, end of period	5,687	6,121	5,845	5,629	5,331
of which associates *	2,888	3,244	2,915	2,775	2,594

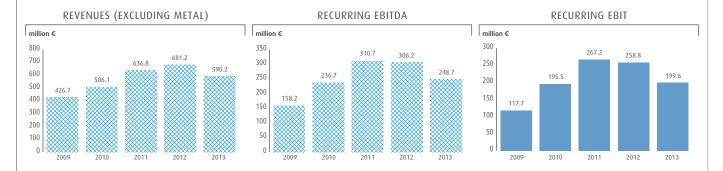
<sup>\*</sup> Zinc Chemicals: Rezinal; Building Products: Ieqsa; Element Six Abrasives

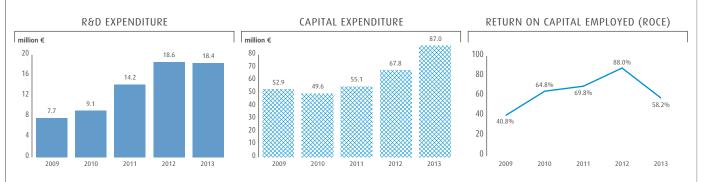




# **Recycling key figures**

(in million EUR unless stated otherwise)	2009	2010	2011	2012	2013
Total turnover	4,323.0	6,120.9	11,649.3	9,589.6	6,663.3
Total revenues (excluding metal)	426.7	506.1	636.8	681.2	590.2
Recurring EBITDA	158.2	236.7	310.7	306.2	248.7
Recurring EBIT	117.7	195.5	267.2	258.8	199.6
Total EBIT	109.8	182.2	274.3	251.8	200.0
Recurring EBIT margin (in %)	27.6	38.6	42.0	38.0	33.8
R&D expenditure	7.7	9.1	14.2	18.6	18.4
Capital expenditure	52.9	49.6	55.1	67.8	87.0
Capital employed, end of period	273.8	421.0	321.4	327.3	397.2
Capital employed, average	288.6	301.8	383.0	294.2	342.8
Return on Capital Employed (ROCE) (in %)	40.8	64.8	69.8	88.0	58.2
Workforce, end of period	2,162	2,168	2,329	2,394	2,345





# Financial statements

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# Consolidated financial statements

## Consolidated income statement

(EUR thousand)

	Notes	2012	2013
Turnover	F9	12,548,014	9,819,255
Other operating income	F9	62,670	76,232
Operating income		12,610,684	9,895,487
Raw materials and consumables	F9	(10,996,184)	(8,344,694)
Payroll and related benefits	F10	(717,025)	(707,151)
Depreciation and impairments	F9	(181,696)	(169,862)
Other operating expenses	F9	(410,388)	(411,179)
Operating expenses		(12,305,293)	(9,632,886)
Income from other financial investments	F12	988	(2,074)
RESULT FROM OPERATING ACTIVITIES		306,379	260,527
Financial income	F11	3,288	4,332
Financial expenses	F11	(23,946)	(19,052)
Foreign exchange gains and losses	F11	(10,345)	(8,131)
Share in result of companies using the equity method	F17	22,218	(511)
Profit (loss) before income tax		297,594	237,165
Income taxes	F13	(59,688)	(52,386)
PROFIT (LOSS) OF THE PERIOD		237,905	184,779
of which: Group share		233,444	179,029
Minority share		4,461	5,750
			(EUR)
Total basic earnings per share	F39	2.09	1.61
Total diluted earnings per share	F39	2.08	1.60
Dividend per share		1.00	1.00

The notes on pages 54 to 117 are an integral part of these consolidated financial statements

# Consolidated statement of comprehensive income

(EUR thousand)

			LOK (IIOG3GIIG)
	Notes	2012	2013
Profit (loss) of the period		237,905	184,779
Items in other comprehensive income that will not be reclassified to P&L			
Changes in post employment benefits, arising from changes in actuarial assumptions		(57,316)	(1,319)
Changes in deferred taxes directly recognized in other comprehensive income		17,272	1,333
Items in other comprehensive income that may be subsequently reclassified to P&L			
Changes in available-for-sale financial assets reserves		(10,788)	(12,102)
Changes in cash flow hedge reserves		7,400	1,914
Changes in deferred taxes directly recognized in other comprehensive income		(2,274)	(428)
Changes in currency translation differences		(14,021)	(61,545)
Other comprehensive income for the period	F23	(59,726)	(72,146)
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		178,179	112,633
of which: Group share		176,265	112,108
Minority share		1,914	524

The deferred tax impact on the consolidated statement of comprehensive income is due to the cash flow hedge reserves for EUR -0.3 million and to employee benefit reserves for EUR 1.3 million.

# Consolidated balance sheet

(EUR thousand)

			(EUR LIIUUSAIIU)		
	Notes	31/12/2012	31/12/2013		
Non-current assets		1,478,168	1,551,228		
Intangible assets	F14, F15	200,902	218,251		
Property, plant and equipment	F16	912,268	998,563		
Investments accounted for using the equity method	F17	214,015	201,391		
Available-for-sale financial assets	F18	37,105	21,183		
Loans granted	F18	5,087	4,971		
Trade and other receivables	F20	17,019	16,339		
Deferred tax assets	F21	91,772	90,530		
Current assets		2,189,731	1,961,069		
Current loans granted	F18	4,960	5,933		
Inventories	F19	1,235,107	1,106,259		
Trade and other receivables	F20	788,377	716,405		
Income tax receivables		29,861	33,227		
Available-for-sale financial assets	F18	3 /	0		
Cash and Cash equivalents	F22	131,427	99,245		
TOTAL ASSETS		3,667,899	3,512,297		
Equity of the group		1,805,805	1,723,428		
Group shareholders' equity		1,751,664	1,677,141		
Share capital and premiums		502,862	502,862		
Retained earnings		1,577,658	1,647,378		
Currency translation differences and other reserves	F23	(102,020)	(167,438)		
Treasury shares		(226,836)	(305,661)		
Minority interest		54,141	46,287		
Non-current liabilities		422,446	439,054		
Provisions for employee benefits	F27	258,975	267,837		
Financial debt	F24	2,861	26,396		
Trade and other payables	F25	13,922	12,908		
Deferred tax liabilities	F21	36,417	28,164		
Provisions	F29, F30	110,271	103,749		
Current liabilities		1,439,648	1,349,814		
Financial debt	F24	351,047	287,839		
Trade and other payables	F25	1,022,363	966,767		
Income tax payable		35,519	64,697		
Provisions	F29, F30	30,719	30,511		
TOTAL EQUITY & LIABILITIES		3,667,899	3,512,297		

# Consolidated statement of changes in equity

(EUR thousand)

		Part of th	ne Group			
	Share capital and premiums	Reserves	Currency translation and other reserves	Treasury shares	Minority interest	TOTAL EQUITY
Balance at the beginning of previous period	502,862	1,461,047	(43,620)	(252,760)	54,179	1,721,707
Result of the period		233,444			4,457	237,901
Other comprehensive income for the period			(57,183)		(2,543)	(59,726)
Total comprehensive income for the period		233,444	(57,183)		1,914	178,175
Changes in share-based payment reserves			5,325			5,325
Capital increase					6,283	6,283
Dividends		(122,929)			(6,882)	(129,810)
Transfers		6,542	(6,542)			0
Changes in treasury shares				25,924		25,924
Changes in scope		(444)			(1,357)	(1,801)
Balance at the end of previous period	502,862	1,577,658	(102,020)	(226,832)	54,141	1,805,805
Result of the period		179,030			5,749	184,779
Other comprehensive income for the period			(66,921)		(5,225)	(72,146)
Total comprehensive income for the period		179,030	(66,921)		524	112,633
Changes in share-based payment reserves			4,337			4,337
Capital increase						
Capital decrease					(5,848)	(5,848)
Change in accounting policies		525	(1,296)			(771)
Dividends		(111,373)			(3,764)	(115,137)
Transfers		1,538	(1,538)			0
Changes in treasury shares				(78,825)		(78,825)
Other movements					112	112
Changes in scope					1,121	1,121
Balance at the end of the financial year	502,862	1,647,378	(167,438)	(305,661)	46,287	1,723,428

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 2013 was composed of 120,000,000 shares with no par value.

IAS 19 (revised) on Employee Benefits is effective for annual periods beginning on or after 1 January 2013 and was not early adopted by Umicore. Based on calculations performed by the actuaries, it has been concluded that the impact of IAS 19 (revised) is not material and consequently the impact of EUR 0.7 million has been recorded in the statement of changes in equity of 2013 and no restatement has been applied on 2012.

The change in scope in the minorities is linked to the sale of Foshan (China).

# Consolidated statement of cash flow

(EUR thousand)

			(EUR thousand)
	Notes	2012	2013
Profit from continuing operations		237,905	184,779
Adjustments for profit of equity companies		(22,218)	511
Adjustment for non-cash transactions	F34	166,220	188,618
Adjustments for items to disclose separately or under investing and financing cash flows	F34	64,922	51,811
Change in working capital requirement	F34	34,060	96,873
Cash flow generated from operations		480,889	522,592
Dividend received		27,015	15,249
Tax paid during the period		(93,788)	(37,556)
Government grants received		1,394	485
NET OPERATING CASHFLOW	F34	415,509	500,770
Acquisition of property, plant and equipment	F16	(227,770)	(266,741)
Acquisition of intangible assets	F14	(25,688)	(26,970)
Acquisition in new subsidiaries (net of cash acquired)		(11,180)	(21,968)
Acquisition of / capital increase in associates		(116)	(7,573)
Acquisition in additional shareholdings in subsidiaries		(1,181)	0
Acquisition of financial assets	F18	(70)	(173)
New loans extended	F18	(7,531)	(1,158)
Sub-total acquisitions		(273,535)	(324,583)
Disposal of property, plant and equipment		2,937	7,800
Disposal of intangible assets		28	1,874
Disposal of subsidiaries and associates (net of cash disposed)		2,062	11
Capital decrease in associates		2,409	0
Disposal of financial fixed assets		489	14
Repayment of loans	F18	381	7
Sub-total disposals		8,306	9,706
NET CASH FLOW GENERATED BY (USED IN) INVESTING ACTIVITIES	F34	(265,229)	(314,877)
Capital increase/decrease minorities		5,483	(5,848)
Own shares		25,924	(78,825)
Interest received		2,916	4,035
Interest paid		(15,950)	(6,607)
New loans (repayment of loans)		(16,793)	(38,547)
Dividends paid to Umicore shareholders		(122,468)	(111,427)
Dividends paid to minority shareholders		(6,881)	(3,764)
NET CASH FLOW GENERATED BY (USED IN ) FINANCING ACTIVITIES	F34	(127,769)	(240,983)
Effect of exchange rate fluctuations on cash held		8,271	22,415
NET CASH FLOW FROM CONTINUING OPERATIONS		30,783	(32,675)
Net cash and cash equivalents at the beginning of the period	F22	100,205	130,988
Net cash and cash equivalents at the end of the period	F22	130,989	98,313
of which cash and cash equivalents		131,427	99,245
of which bank overdrafts		(438)	(932)

# Notes to the consolidated financial statements

The company's consolidated financial statements and the management report prepared in accordance with article 119 of the Belgian Companies Code set forth on pages 1 to 118, for the year ended 31 December 2013 were authorized for issue by the Board of Directors on 13 March 2014. 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

Umicore applies a full consolidation for its subsidiaries - entities over which the company has control - i.e. the power to govern the financial and operating policies so as to obtain benefits from its activities. Control is presumed when Umicore owns, directly or indirectly through subsidiaries, more than 50% of the voting rights.

Subsidiaries are consolidated from the date on which control is transferred to the Group and are no longer consolidated from the date that control ceases.

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

To account for an acquisition, the purchase method is used. The assets, liabilities and contingent liabilities of the acquired company are measured at their fair value at the date of acquisition. The cost of acquisition is measured as the fair value of assets given up, shares issued or liabilities undertaken at the date of acquisition, plus costs directly attributable to the acquisition. The excess of the cost of acquisition over the Group's share of the fair value of the net assets of the subsidiary is recognized as goodwill. (see Section 2.6. Intangible Assets). If the Group's share in the fair value of the net assets exceeds the cost of acquisition, the excess is recognized immediately as a profit in the income statement.

Inter-company transactions, balances and unrealized gains on transactions between Group companies are eliminated. Unrealized losses are also eliminated, unless such losses are an indication of impairment. Where necessary, the subsidiaries' accounting policies have been changed to ensure consistency with the policies the Umicore Group has adopted.

An associate is an entity in which the company has a significant influence over the financial and operating policies, but no control. Typically this is evidenced by an ownership of between 20 to 50% of the voting rights. A joint venture is a contractual arrangement whereby the company and other parties undertake, directly or indirectly, an economic activity that is subject to joint control.

Both associates and joint ventures are accounted for using the equity method. Under this method, the Group's share of the post-acquisition profits or losses is recognized in the income statement, and its share of post-acquisition movements in reserves is recognized in reserves.

The company's investments in associates and joint ventures include the goodwill on acquisitions, net of impairment.

Unrealized gains on transactions between the company and its associates or joint ventures are eliminated to the extent of the company's interest in the associates and joint ventures. Unrealized losses are also eliminated, unless the transaction provides evidence of impairment.

Investments in companies that are not consolidated through the equity method or through the full consolidation method are recorded under "available-forsale financial assets".

Note F17 lists all significant associates and joint ventures of the company as at the closing date.

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 Materials, Performance Materials and Recycling.

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 Materials segment is focused primarily on materials used in the growing markets of rechargeable batteries, in both portable electronics as well as in hybrid electric vehicles and solar energy. Its products are largely based on cobalt, 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 Performance Materials segment has a broad product portfolio used in various industries including construction, automotive, electrics and electronics. All these products apply precious metals or zinc to enhance specific product capabilities.

Operating segments are reported in a manner consistent with the internal reporting provided to the Board and the Executive Committee. The Executive Committee reviews the performance of the operating segments primarily based on Earnings before Interest and Tax (EBIT), Capital Employed and Return on Capital Employed.

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

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

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

A geographical segment is engaged in providing products or services within a particular economic environment that are subject to risks and returns that are different from those of segments operating in other environments.

#### 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
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.

#### 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 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.

#### 2.6.4 CO, emission rights

Within the framework of the Kyoto protocol, a second emission trading period started, covering 2008-2012. 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.
- \* Software and related internal development costs: are typically amortized over a period of five years.
- \* Land use rights: are typically amortized over the contractual period.

#### 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 1 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.

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#### 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 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.

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#### 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.

#### 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. In both cases, the equity is increased by the amount of the proceeds received corresponding to the exercise price. For the share programs, shares are delivered to the beneficiaries from existing own shares.

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.

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 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.

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#### 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 related to the US dollar (USD), while many of the 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 the company's results. The largest portion of this currency exposure derives from USD denominated metals prices, which have an impact on the value of surplus metal recovered from materials supplied for treatment.

Umicore has a policy of hedging forward its structural currency exposure, either in conjunction with the hedging of structural metal price exposure or in isolation, when the currency exchange rates or the metal price expressed in euros are above their historical average and at a level where attractive margins can be secured.

At prevailing exchange rates at the end of 2013 and with regard to the non-metal price related structural USD exposure at the end of 2013, a strengthening of the USD by 1 US cent towards the Euro is estimated to give rise to an increase in revenues and operating result of slightly more than EUR 1 million on an annual basis. Conversely, a weakening of the dollar by 1 US cent against the Euro gives rise to a decrease of the same magnitude on an annual basis.

The sensitivity level is a short-term guide and is somewhat theoretical since the exchange rate level often impacts changes in commercial conditions negotiated in USD and elements outside Umicore's control, such as the influence that the dollar exchange rate may have on dollar-denominated metals prices, movements in which have an effect on Umicore's earnings (see Metal Price Risk below). To a lesser extent, there is also a 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 has some structural currency hedging in place relating to its non-metal-price-related currency sensitivity: Euro/NOK and USD/NOK contracts at Umicore Norway, USD/KRW contracts at Umicore Korea and Euro/ZAR at Umicore AG KG in Germany.

#### 3.1.2 Transactional risk

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

#### 3.1.3 Translational risk

Umicore is an international company and has foreign operations which do not have the Euro as their functional currency. When the results and the balance sheets of these operations are consolidated into Umicore's Group accounts the translated amount is exposed to variations in the value of such local currencies against the Euro, predominantly the USD, the Brazilian real, the Korean won, the Chinese yuan and the South African rand. Umicore principally does not hedge against such risk.

#### 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 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 liquidity of the relevant markets.

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 linked primarily to the revenue components that are metal price related in its other business segments (Catalysis, Energy Materials and Performance Materials), 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 for 2014. In the course of 2013, as a result of increased visibility on future commercial agreements, Umicore extended such hedges to cover part of the price risks for 2014 and 2015. These contracts relate primarily to recovery of palladium, gold, silver and copper.

#### 3.2.2 Transactional risk

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

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

#### 3.2.3 Metal inventory risk

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

#### 3.3 Interest rate risk

The Group's exposure to changes in interest rates relates to the Group's financial debt obligations. At the end of December 2013, the Group's gross financial debt stood at EUR 313 million, of which 26 million at fixed rate. In January 2013, the Group entered in a 5-year interest rate swap fixing the rate for an amount of FUR 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 short-term bilateral bank facilities, two medium-term syndicated bank facilities and a commercial paper programme (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. The 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 165-168) for a description of these risks and an outline of Umicore's general approach to risk management.

## 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 2013, the carrying amount of the goodwill for the consolidated entity is EUR 108,475 thousand (EUR 99,348 thousand in 2012).

#### 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 2013, the carrying amount of rehabilitation provisions is EUR 76,732 thousand (EUR 80,441 thousand in 2012).

#### 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 2013, a liability with respect to employee benefit obligations of EUR 267,837 thousand was recognized (EUR 258,975 thousand in 2012).

#### 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 2012	% interest in 2013
Argentina	Umicore Argentina S.A.	100.00	100.00
Australia	Umicore Australia Ltd.	100.00	100.00
	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
<del>9</del>	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 Finance	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 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 Hunan Fuhong Zinc Chemicals Co., Ltd.	100.00	100.00
	Umicore Marketing Services (Shanghai) Co., Ltd.	100.00	100.00
	Umicore Marketing Services (Hong Kong) Ltd.	100.00	100.00
	Umicore Shanghai Co., Ltd.	75.00	75.00
	Umicore Autocat (China) Co. Ltd.	100.00	100.00
	Umicore Technical Materials (Suzhou) Co., Ltd.	100.00	100.00
	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
ridile		100.00	100.00
	Umicore Building Products France S.A.S Umicore Climeta S.A.S.		100.00
		100.00	
	Umicore IR Glass S.A.S.	100.00	100.00
Cormony	Umicore Autocat France S.A.S.	100.00	100.00
Germany	Umicore AG & Co. KG (*)	100.00	100.00
	Umicore Bausysteme GmbH	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
Hungary	Umicore Building Products Hungary kft.	100.00	100.00
Italy	Umicore Building Products Italia s.r.l.	100.00	100.00
	Italbras S.p.A.	100.00	100.00
India	Umicore Autocat India Pvt Ltd	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
	Umicore Shokubai	60.00	60.00
Malaysia	Umicore Malaysia Sdn Bhd	100.00	100.00
Netherlands	Schöne Edelmetaal BV	91.21	91.21
	Umicore Nederland BV	100.00	100.00
Norway	Umicore Norway AS	100.00	100.00
	Umicore Finance Norway	100.00	100.00
Philippines	Umicore Specialty Chemicals Subic Inc.	78.20	78.20

		% interest in 2012	% interest in 2013
Polska	Umicore Building Products Polska	100.00	100.00
Portugal	Umicore Portugal S.A.	100.00	100.00
	Umicore Marketing Services Lusitana Metais Lda	100.00	100.00
South Africa	Umicore South Africa (Pty) Ltd.	100.00	100.00
	Umicore Marketing Services Africa (Pty) Ltd.	100.00	100.00
	Umicore Catalyst South Africa (Pty) Ltd.	65.00	100.00
South Korea	Umicore Korea Ltd.	100.00	100.00
	Umicore Marketing Services Korea Co., Ltd.	100.00	100.00
	Umicore Materials Korea Ltd	100.00	100.00
Spain	Umicore Building Products Iberica S.L.	100.00	100.00
Sweden	Umicore Autocat Sweden AB	100.00	100.00
Switzerland	Umicore Strub	100.00	100.00
	Allgemeine Suisse SA	91.21	91.21
Taiwan	Umicore Thin Fim Products Taiwan Co Ltd	100.00	100.00
Thailand	Umicore Precious Metals Thailand Ltd	91.21	91.21
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 Building Products 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 Marketing Services USA Inc.	100.00	100.00
	Umicore Optical Materials USA Inc.	100,00	100,00
	Umicore Shokubai USA Inc,	60,00	100,00
	Umicore Technical Materials North America	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 in the consolidated accounts of Umicore which is compliant with the Section 325 of the German Commercial Code (HGB), this company is exempted from issuing consolidated financial statements according to Article 264b of the 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
		2012	2013	2012	2013
American Dollar	USD	1.319	1.379	1.285	1.328
UK Pound Sterling	GBP	0.816	0.834	0.811	0.849
Canadian Dollar	CAD	1.314	1.467	1.284	1.368
Swiss Franc	CHF	1.207	1.228	1.205	1.231
Japanese Yen	JPY	113.610	144.720	102.492	129.663
Brazilian Real	BRL	2.696	3.231	2.511	2.866
South African Rand	ZAR	11.173	14.566	10.551	12.833
Chinese Yuan	CNY	8.221	8.349	8.105	8.165
Thai Baht	THB	40.347	45.178	39.928	40.830
Korean Won (100)	KRW	14.062	14.509	14.477	14.539

# F7 Segment information

**BUSINESS GROUP INFORMATION 2012** 

(EUR thousand)

							(El	JR thousand)
			Energy	Performance		Corporate &		
	Note	Catalysis	Materials	Materials	Recycling	Unallocated	Eliminations	Total
Total segment turnover		1,871,884	763,694	1,508,441	9,589,561	28,797	(1,214,361)	12,548,014
External turnover		1,845,081	757,176	1,348,793	8,568,167	28,797		12,548,014
Inter-segment turnover		26,802	6,518	159,648	1,021,393		(1,214,361)	0
Total segment revenues		866,147	366,413	523,248	681,257		(9,500)	2,427,565
External revenues		865,347	366,413	523,248	672,557			2,427,565
Inter-segment revenues		800			8,700		(9,500)	0
Operating result	F9	73,980	(15,505)	46,517	251,791	(50,403)		306,379
Recurring operating result		80,410	13,994	44,580	258,775	(47,905)		349,854
Non-recurring operating result		(5,704)	(29,975)	1,223	(7,859)	(2,498)		(44,813)
IAS 39 effect		(726)	476	714	875	0		1,339
Equity method companies	F9	9,850	4,202	10,600		(2,433)		22,219
Recurring		10,546	4,202	9,930		(2,435)		22,243
Non-recurring		(8)		(1,834)		1		(1,841)
IAS 39 effect		(688)		2,504		1		1,817
EBIT	F9	83,830	(11,303)	57,117	251,791	(52,836)		328,599
Recurring EBIT		90,956	18,196	54,510	258,775	(50,340)		372,097
Non-recurring EBIT		(5,712)	(29,975)	(611)	(7,859)	(2,497)		(46,654)
IAS 39 effect on EBIT		(1,414)	476	3,218	875	1		3,156
Depreciation and amortization	F9	33,442	32,378	28,431	47,398	10,310		151,959
EBITDA	F9	117,272	21,075	85,548	299,189	(42,526)	0	480,558
Recurring EBITDA		124,398	50,574	82,941	306,173	(40,030)	0	524,056
Consolidated total assets		1,201,072	765,669	802,992	945,081	441,704	(488,619)	3,667,899
Segment assets		1,153,830	731,683	677,105	945,081	429,896	(488,619)	3,448,976
Investments in associates		47,242	33,986	125,887		11,808		218,923
Consolidated total liabilities		415,472	285,383	244,936	616,138	2,594,588	(488,619)	3,667,899
Capital Employed at 31/12 of previous year	F31	768,242	457,434	571,967	321,426	49,754		2,168,823
Capital Employed at 30/06	F31	813,419	483,506	602,240	264,060	71,636		2,234,861
Capital Employed at 31/12	F31	795,496	476,273	572,949	327,338	87,341		2,259,397
Average Capital Employed in first half year	F31	790,831	470,470	587,104	292,743	60,695		2,201,842
Average Capital Employed in second half year	F31	804,458	479,890	587,595	295,699	79,489		2,247,129
Average Capital Employed in the year	F31	797,644	475,180	587,349	294,221	70,092		2,224,486
ROCE	F31	11.40%	3.83%	9.28%	87.95%	(71.82)%		16.73%
Capital expenditure	F34	75,672	52,780	29,328	67,785	10,180		235,745
Total R&D expenditure	F9	85,778	15,830	11,878	18,616	16,920		149,023
R&D recognised in operating expenses	F9	72,663	11,232	11,878	18,616	16,920		131,309
R&D capitalised as intangible assets	F34	13,115	4,598					17,713

#### **BUSINESS GROUP INFORMATION 2013**

(EUR thousand)

			F	0(		Comments	(EU	R thousand)
			Energy	Performance	o 1:	Corporate &	etc	
	Note		Materials	Materials	Recycling	Unallocated	Eliminations	Tota
Total segment turnover		2,020,189	825,732	1,388,441	6,663,286	33,020	(1,111,413)	9,819,255
External turnover		1,990,567	820,108	1,256,605	5,718,955	33,020		9,819,255
Inter-segment turnover		29,622	5,624	131,836	944,330	0	(1,111,413)	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Total segment revenues		893,530	402,587	509,736	590,210	0	(6,050)	2,390,013
External revenues		892,800	402,587	509,736	584,890	0		2,390,013
Inter-segment revenues		730			5,320		(6,050)	(
Operating result	F9	70,728	18,662	28,598	200,042	(57,503)		260,527
Recurring operating result		70,800	22,028	45,602	199,552	(45,848)		292,134
Non-recurring operating result		(324)	(3,569)	(16,832)	1,767	(11,655)		(30,613)
IAS 39 effect		252	203	(172)	(1,277)	0		(994)
Equity method companies	F9	2,962	2,702	(3,709)	0	(2,467)		(512)
Recurring		2,534	2,702	9,064	0	(2,467)		11,833
Non-recurring		(49)	0	(12,773)	0	0		(12,822)
IAS 39 effect		477	0	0	0	0		477
EBIT	F9	73,690	21,364	24,889	200,042	(59,970)	0	260,015
Recurring EBIT		73,334	24,730	54,666	199,552	(48,315)	0	303,967
Non-recurring EBIT		(373)	(3,569)	(29,605)	1,767	(11,655)	0	(43,435)
IAS 39 effect on EBIT		729	203	(172)	(1,277)	0	0	(517)
Depreciation and amortization	F9	39,427	30,452	28,702	49,122	10,919		158,622
EBITDA	F9	113,117	51,816	53,591	249,164	(49,051)	0	418,637
Recurring EBITDA		112,761	55,182	83,368	248,674	(37,396)	0	462,589
Consolidated total assets		1,172,091	798,157	683,405	907,787	407,927	(457,070)	3,512,297
Segment assets		1,118,681	764,139	571,945	907,787	405,362	(457,070)	3,310,843
Investments in associates		53,410	34,018	111,460	0	2,565	0	201,454
Consolidated total liabilities		396,070	332,953	210,786	517,347	2,512,211	(457,070)	3,512,297
Capital Employed at 31/12 of previous year	F31	795,496	476,273	572,949	327,338	87,341		2,259,397
Capital Employed at 30/06	F31	806,703	479,141	572,031	323,290	54,939		2,236,103
Capital Employed at 31/12	F31	809,472	470,175	504,834	397,161	51,926		2,233,568
Average Capital Employed in first half year	F31	801,100	477,707	572,490	325,314	71,140		2,247,750
Average Capital Employed in second half year	F31	808,088	474,658	538,433	360,226	53,433		2,234,836
Average Capital Employed in the year	F31	804,594	476,183	555,461	342,770	62,286		2,241,293
ROCE	F31	9.11%	5.19%	9.84%	58.22%	(77.57)%		13.56%
Capital expenditure	F34	84,423	64,283	29,432	87,015	14,440		279,614
Total R&D expenditure	F9	81,991	16,150	10,780	18,379	13,249		140,549
R&D recognised in operating expenses	F9	71,565	13,047	10,741	18,379	12,722		126,453
R&D capitalised as intangible assets	F34	10,427	3,103	39	0	527		14,096

#### **GEOGRAPHICAL INFORMATION 2012**

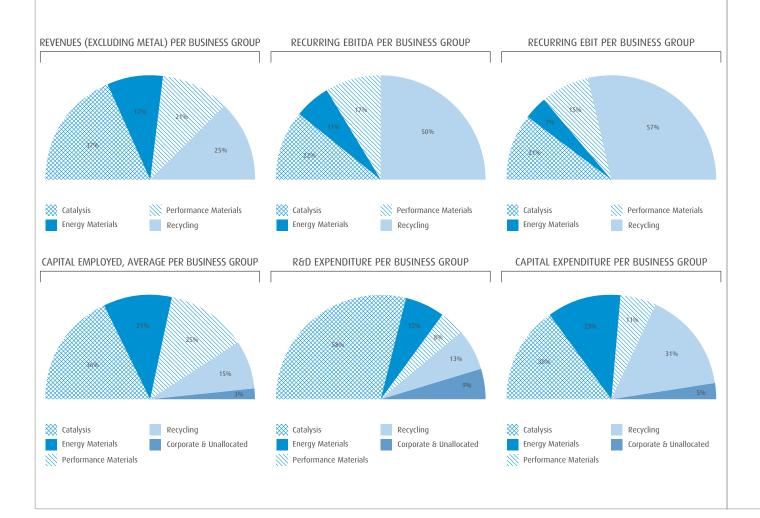
(EUR thousand)

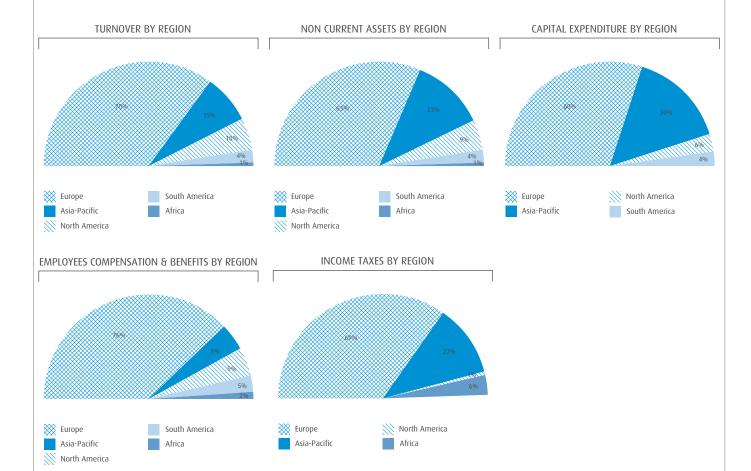
			of which	Asia-	North	South		
	Note	Europe	Belgium	Pacific	America	America	Africa	Total
Total segment turnover		9,463,047	332,547	1,170,643	1,282,130	424,937	207,257	12,548,014
Total non current assets		948,379	541,625	255,944	106,141	19,193	14,095	1,343,752
Capital expenditure	F34	142,558	80,977	63,167	17,594	11,656	770	235,745

#### **GEOGRAPHICAL INFORMATION 2013**

(EUR thousand)

							(	,
	Note	Europe	of which Belgium	Asia- Pacific	North America	303	Africa	Total
Total segment turnover		6,881,672	258,911	1,450,249	949,677	383,466	154,191	9,819,255
Total non current assets		905,679	415,162	325,828	137,207	56,156	9,188	1,434,060
Capital expenditure	F34	167,116	106.598	84.880	17.053	9,527	1.039	279,614





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.

### **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.

#### **Energy Materials**

The segment comprises the Cobalt & Specialty Materials, Electro-Optic Materials, Rechargeable Battery Materials and Thin Film Products business units. These units develop and produce materials that are primarily used in energy storage (rechargeable batteries) and the production of clean energy. The refining of metals used in these applications and coming from secondary sources belongs to the scope of activity of these units. This segment includes the associates belife, belife Intermediates, Ganzhou Yi Hao Umicore Industries, Jiangmen Chancsun Umicore Industry and Todini.

#### **Performance Materials**

The segment comprises the Building Products, Electroplating, Platinum Engineered Materials, Technical Materials and Zinc Chemicals business units. These units develop and produce functional materials that are used in decorative, electronic, electrical, high purity glass and construction applications, mainly. The Zinc Chemicals business unit also recycles secondary zinc products to secure part of its supply requirements. The segment also includes Umicore's shareholding in Element Six Abrasives, in Rezinal and IEOSA.

#### Recycling

The segment consists of the business units Precious Metals Refining, Jewellery & Industrial Metals, Precious Metals Management and Battery Recycling. Their activities focus on the recycling of end-of-life products and the refining of industrial residues which contain precious and special metals.

#### Corporate

Corporate covers corporate activities, shared operational functions and the Group's Research, Development & Innovation unit, which includes the Fuel Cells development program. This fuel cells activity includes the joint ventures Solvicore GmbH and Solvicore Management GmbH.

This disclosure only refers to continuing operations except for the balance sheet figures. In the secondary 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 in the non-recurring operating result and the IAS 39 effect for which definitions are given in the glossary.

Umicore has revised its definition of capital expenditures in 2013 and capital expenditures now exclude capitalized R&D costs (refer to Umicore definition in the Glossary). The 2012 figures have been restated accordingly.

Moreover, as from 2013, Umicore has decided to deduct R&D income such as research grants that are received from third parties from its reported R&D expenditures and to exclude R&D from associates. Umicore has also applied the internationally recognized Frascati Manual definitions for defining R&D expenditures. The R&D expenditure figures for 2012 have been restated accordingly.

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

(EUR thousand)

	Notes	Fair value
Non Current Assets		5,733
Current Assets		9,335
Non Current Liabilities		2,258
Current Liabilities		8,572
Net assets acquired		4,238
Goodwill	F15	18,071
Purchase price		22,307
Net cash & cash equivalent acquired		336
Net cash out for acquistion of subsidiaries		21,972

Umicore acquired on 30th December 2013 Palm Commodities International, a leading manufacturer and distributor of materials to the surface treatment industry in North America. Palm Commodities, based in Nashville (USA) transforms nickel and cobalt into plating chemicals and provides an extended customer portfolio, excellence in logistics support and customer service. Palm Commodities is integrated in the Cobalt and Specialty Materials business unit and will enable Umicore to expand its reach into the important North American plating market where customers serve a variety of industries including automotive, construction and electronics.

# F9 Result from operating activities

OPERATING INCOME AND EXPENSES (EUR thousand)

	2012	2013
Sales	12,476,292	9,717,176
Services	71,722	102,079
Turnover (1)	12,548,014	9,819,255
Other operating income (2)	62,670	76,232
OPERATING INCOME	12,610,684	9,895,487
Raw materials and consumables used (3)	(10,996,184)	(8,344,694)
Payroll and related benefits	(717,025)	(707,151)
Depreciation of fixed assets	(151,959)	(158,622)
Impairment loss on fixed assets	(29,856)	(11,392)
Inventory and bad debt provisions	119	151
Depreciation and impairment results (4)	(181,696)	(169,862)
Services and outsourced refining and production costs	(396,188)	(380,095)
Royalties, licence fees, consulting and commissions	(24,314)	(23,665)
Other operating expenses	(3,230)	(4,878)
Increase and decrease in provisions	(2,980)	(20,820)
Use of provisions	20,269	21,217
Capital losses on disposal of assets	(3,945)	(2,938)
Other operating expenses (5)	(410,388)	(411,179)
OPERATING EXPENSES	(12,305,293)	(9,632,886)

- 1) Services mainly include the revenues from tolling contracts.
- 2) Other operating income mainly include re-invoicing of costs to third parties (EUR 37.1 million), operating grants (EUR 5.3 million), royalties and licence fees for EUR 4.2 million, EUR 3.6 million linked to emission rights, EUR 2.5 million for insurance recovery, EUR 4.3 million for assets' sales and EUR 1.4 million for tax recovery files.
- 3) Raw materials and consumables used include water, gas and electricity for EUR 91.2 million in 2013 (EUR 80.8 million in 2012).
- 4) Impairments of fixed assets have been taken and transferred in non-recurring result. Those are mainly related to production footprint adjustments.
- 5) Taxes other than income taxes included in other operating expenses amount to EUR 17.1 million (EUR 16.0 million in 2012).

R&D EXPENDITURE (EUR thousand)

	Note	2012	2013
R&D recognised in Other operating expenses		131,309	126,453
R&D capitalised as intangible assets	F14	17,713	14,096
Total R&D expenditure		149,023	140,549

Total R&D expenditure was EUR 140.6 million in the fully consolidated companies. The part of the R&D expenditures that are going directly through the other operating expenses amounts for EUR 126.4 million.

From 2013, Umicore has decided to deduct R&D income such as research grants that are received from third parties from its reported R&D expenditures and to exclude R&D from associates. Umicore has also applied the internationally recognized Frascati Manual definitions for defining R&D expenditures. The R&D expenditure figures for 2012 have been restated accordingly.

#### NON-RECURRING ELEMENTS AND IAS 39 EFFECTS INCUDED IN THE RESULT

(EUR thousand)

		2012				2013			
				Non-	IAS 39			Non-	IAS 39
	Note	Total	Recurring	recurring	effect	Total	Recurring	recurring	effect
Turnover		12,548,014	12,548,014			9,819,256	9,819,194	61	0
Other operating income		62,670	61,071	1,861	(262)	76,232	74,555	423	1,254
Operating income		12,610,685	12,609,086	1,861	(262)	9,895,487	9,893,749	484	1,254
Raw materials and consum- ables used		(10,996,184)	(10,985,023)	(3,116)	(8,045)	(8,344,695)	(8,342,134)	(168)	(2,394)
Payroll and related benefits		(717,025)	(711,950)	(5,074)	0	(707,151)	(702,921)	(4,230)	0
Depreciation and impair- ment results		(181,696)	(160,775)	(24,986)	4,065	(169,862)	(165,476)	(5,423)	1,037
of which depreciation and amortization		(151,959)	(151,959)			(158,622)	(158,622)	0	0
Other operating expenses		(410,388)	(402,471)	(13,497)	5,580	(411,179)	(391,692)	(18,595)	(891)
Operating expenses		(12,305,293)	(12,260,220)	(46,674)	1,600	(9,632,887)	(9,602,222)	(28,417)	(2,248)
Income from other financial investments		988	988			(2,074)	606	(2,680)	0
Result from operating activities		306,379	349,854	(44,813)	1,339	260,526	292,133	(30,613)	(994)
Net contribution from equity method companies		22,218	22,243	(1,841)	1,817	(511)	11,833	(12,822)	477
EBIT		328,598	372,097	(46,654)	3,155	260,016	303,967	(43,435)	(517)
EBITDA		480,556	524,055	(46,654)	3,155	418,638	462,589	(43,435)	(517)
Finance cost	F11	(31,004)	(23,388)	0	(7,616)	(22,851)	(22,823)	0	(28)
Income taxes	F13	(59,688)	(67,325)	5,418	2,219	(52,386)	(57,413)	4,728	299
Net result		237,906	281,383	(41,237)	(2,242)	184,778	223,731	(38,707)	(246)
of which minority shares		4,461	6,148	(1,733)	46	5,749	5,689	158	(99)
of which group shares		233,444	275,235	(39,504)	(2,288)	179,029	218,042	(38,865)	(148)

Non-recurring items had a negative impact of EUR 43.4 million on EBIT. Restructuring charges accounted for EUR 30.6 million, the majority of which relates to the closure of Element Six Abrasives' plant in China, impairments of assets at the Element Six Abrasives' plant in South Africa, the closure of Zinc Chemicals' plant in Melbourne, Australia, as well as the implementation of cost reduction measures in Building Products. It also includes some impairments on the Pangaea shares under the line "Income from other financial investments".

Umicore also booked environmental provisions of EUR 7.7 million related to the remediation of historical pollution on site surroundings. Impairments on permanently tied-up metal inventories, resulting from lower metal prices, accounted for EUR 1.5 million. The impact of non-recurring charges on the net result (Group share) amounted to EUR 38.9 million.

IAS 39 accounting rules had a negative effect of EUR -0.5 million on EBIT and a negative impact of EUR -0.2 million on the net result (Group share). These impacts 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		(EUR thousand)
	2012	2013
Wages, salaries and direct social advantages	(524,350)	(515,260)
Other charges for personnel	(25,783)	(28,311)
Temporary staff	(10,435)	(11,867)
Share-based payments	(5,325)	(4,337)
Employee salaries	(565,893)	(559,775)
Employer's social security	(112,743)	(113,794)
Defined benefit contributions	(14,438)	(11,411)
Contribution to defined contribution plan	(13,696)	(16,712)
Employer's voluntary contributions (other)	(5,526)	(3,662)
Pensions paid directly to beneficiaries	(5,000)	(4,220)
Provisions for employee benefits (-increase / + use and reversals)	272	2,420
Pensions and other benefits	(38,388)	(33,585)
PAYROLL AND RELATED BENEFITS	(717,025)	(707,151)

## **AVERAGE HEADCOUNT IN CONSOLIDATED COMPANIES**

	2012	2013
Executives and managerial staff	1,872	1,901
Non managers	8,409	8,392
Total	10,281	10,293

SHARE-BASED PAYMENTS (EUR thousand)

	Notes	2012	2013
Number of stock options granted	F28	603,375	589,250
Valuation model		Present Econ	omic Value
Assumed volatility (% pa)		30.00	25.00
Risk-free interest rate (% pa)		1.40	0.83
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)		7.36	5.80
Total fair value of options granted		4,439	3,416
2,900 shares granted at 36.725 EUR			107
19,000 shares granted at 36.36 EUR			691
3,400 shares granted at 36.185 EUR			123
2,700 shares granted at 37.51 EUR		101	
21,750 shares granted at 36.07 EUR		785	
Total fair value of shares granted		886	920
SHARE-BASED PAYMENTS		5,325	4,337

The Group recognized a share-based payment expense of EUR 4,337 thousand during the year.

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 2013, shares have been granted to top management resulting in an extra charge of EUR 920 thousand.

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)

	2012	2013
Interest income	2,903	4,004
Interest expenses	(9,006)	(6,613)
Discounting of non-current provisions	(10,937)	(8,601)
Foreign exchange gains and losses	(10,345)	(8,131)
Other financial income	385	328
Other financial expenses	(4,004)	(3,838)
Total	(31,004)	(22,851)

The net interest charge in 2013 totaled EUR 2,609 thousand. This has decreased compared with the EUR 6,103 thousand of 2012, mainly because of a decreasing average weighted interest rate.

The discounting of non-current provisions relates mainly to employee benefits and, to a lesser extent to environmental provisions. 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 2013 are booked in Belgium, Germany 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)

	2012	2013
Capital gains and losses on disposal of financial investments	(499)	964
Dividend income	913	918
Interest income from financial assets	43	9
Impairment results on financial investments	531	(3,965)
Total	988	(2,074)

The impairment results on financial investments mainly includes some impairments on the Pangaea shares.

# F13 Income taxes

(EUR thousand)

	2012	2013
INCOME TAX EXPENSE		
Recognized in the income statement		
Current income tax	(58,734)	(63,490)
Deferred income tax	(954)	11,104
Total tax expense	(59,688)	(52,386)
RELATIONSHIP BETWEEN TAX EXPENSE (INCOME) AND ACCOUNTING PROFIT		
Result from operating activities	306,379	260,526
Financial result	(31,004)	(22,851)
Profit (loss) before income tax of consolidated companies	275,375	237,676
Weighted average theoretical tax rate (%)	(29.86)	(30.33)
Income tax calculated at the weighted average theoretical tax rate	(82,214)	(72,077)
Tax effect of		
Expenses not deductible for tax purposes	(12,917)	(11,825)
Tax-exempted revenues	1,371	5,134
Tax-exempt dividends from consolidates companies & Associates	(1,116)	(331)
Gains & Losses taxed at a reduced rate		0
Tax incentives deductible from the taxable base	31,956	31,723
Tax computed on other basis	(1,100)	(886)
Utilisation of previously unrecognised tax losses	32,769	12,350
Write down (or rev. of prev. write down) of DTA	(15,376)	(11,019)
Change in applicable tax rate	(65)	484
Tax holidays	1,404	1,068
Other tax credits (excluding R&D tax credits)	230	1,137
Non recoverable foreign withholding taxes	(6,831)	(5,023)
Previous years adjustments	(1,363)	(7,038)
Other	(6,436)	3,916
Tax expense at the effective tax rate for the year	(59,688)	(52,386)

The weighted average theoretical tax rate evolved from 29.86% in 2012 to 30.33% in 2013.

Excluding the impact of non-recurring items and the IAS 39 effect, the recurring effective tax rate for 2013 is 21.3%. This is slightly higher than the level of 2012 and includes the effect from the change in the geographical earnings mix. The rate is influenced by the net positive impact of tax assets.

# F14 Intangible assets other than goodwill

(EUR thousand)

						(EUR thousand)
	Development expenses	Concessions, patents,		CO <sub>2</sub> emission	Other intangible	
	capitalised	licences, etc.	Software	rights	assets	Total
At the beginning of previous year		•				
Gross value	41,793	12,899	112,930	8,845	7,504	183,971
Accumulated amortization	(2,585)	(10,047)	(76,838)	(3,842)	(5,586)	(98,898)
Net book value at the beginning of previous year	39,208	2,852	36,092	5,003	1,919	85,074
. acquisition through business combinations		2	2			5
. additions	17,414	19	1,506		6,748	25,688
. disposals		(640)	(17)	0	(2,257)	(2,914)
. amortization charged (included in "Depreciation and impairments")	(5,585)	(331)	(8,557)		(104)	(14,577)
. impairment losses recognized (included in "Depreciation and impairments")	(401)			(1,899)		(2,300)
. reversal of impairment losses (included in "Depreciation and impairments")			25	321		346
. emission rights allowances				2,419		2,419
. translation differences	(229)	(21)	(376)		(11)	(636)
. other movements		640	9,222		(1,408)	8,453
At the end of previous year	50,407	2,521	37,898	5,843	4,887	101,557
Gross value	58,959	12,889	122,068	9,522	10,568	214,006
Accumulated amortization	(8,552)	(10,368)	(84,169)	(3,679)	(5,684)	(112,452)
Net book value at the end of previous year	50,407	2,521	37,898	5,843	4,884	101,554
. acquisition through business combinations					2,861	2,861
. additions	14,096	11	5,673	2,617	4,291	26,689
. disposals		0	0	0	(64)	(64)
. amortization charged (included in "Depreciation and impairments")	(9,869)	(446)	(8,746)		(99)	(19,159)
. impairment losses recognized (included in "Depreciation and impairments")	(859)	0	(34)	(549)	0	(1,442)
. reversal of impairment losses (included in "Depreciation and impairments")		0	0	(569)	0	(569)
. emission rights allowances				1,574		1,574
. translation differences	(676)	(36)	(688)	0	(172)	(1,572)
. other movements	716	0	1,101	0	(1,917)	(100)
At the end of the 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	53,816	2,050	35,205	8,916	9,787	109,775

<sup>&</sup>quot;Additions" are mainly explained by capitalized expenses in new information systems and internally generated developments. EUR 15.9 million are linked to own productions, of which EUR 12.5 million are development expenses.

The other intangibles mainly include the customer portfolio acquired in Palm Commodities International and additions in R&D and information systems under construction.

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)

	31/12/2012	31/12/2013
At the end of the previous year	, ,	
Gross value	100,273	101,353
Accumulated impairment losses	(2,044)	(2,005)
Net book value at the end of previous year	98,229	99,348
. aquisition through business combinations	993	18,071
. impairment losses (included in "Depreciation and impairment results")	0	(5,958)
. translation differences	127	(2,986)
. other movements		
At the end of the year	99,348	108,475
Gross value	101,353	115,788
Accumulated impairment losses	(2,005)	(7,313)
Net book value	99,348	108,475

This table includes goodwill related to fully consolidated companies only. Goodwill relating to companies accounted for by the equity method is detailed in note F17.

The change of the period relates to the new goodwill linked to the acquisition of Palm Commodities International (disclosed in Note F8), to impairments in entities in Australia, France and China and to exchange differences.

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

(EUR thousand)

	Catalysis	Energy Materials	Pertormance Materials	Recycling	Total
31/12/2012	37,238	27,650	16,038	18,421	99,348
31/12/2013	37,062	44,185	8,922	18,306	108,475

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 2013 modeling used an average tax rate of 25% (25% in 2012) and a weighted average cost of capital post-tax of 8.5% (same as in 2012) 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 2012). Inflation rates are based on guidance coming from national and international institutes like the NBB or ECB.

# F16 Property, plant and equipment

(EUR thousand)

		Plant,			Construction	ok tilodsalid)
		machinery	Furniture	<b>Other</b>	in progress	
	Land and	and	and	tangible	and advance	
	buildings	equipment	vehicles	assets	payments	Total
At the beginning of previous year						******
Gross value	640,870	1,396,322	184,475	28,414	94,655	2,344,736
Accumulated depreciation	(338,169)	(991,926)	(126,055)	(24,250)		(1,480,400)
Net book value at the beginning of previous year	302,701	404,396	58,420	4,164	94,655	864,336
. aquisition through business combinations	42	6,898	569		128	7,636
. additions	32,530	48,246	10,911	566	135,611	227,864
. disposals	(86)	(3,365)	(1,645)	(273)	53	(5,316)
. depreciations (included in "Depreciation and impairments")	(27,322)	(92,567)	(16,539)	(967)		(137,395)
. net impairment losses recognized (included in "Depreciation and impairments")	(8,377)	(18,785)	(728)			(27,890)
. translation differences	(1,749)	(5,035)	(1,022)	(310)	(657)	(8,774)
. other movements	23,268	71,806	8,456	994	(112,719)	(8,195)
At the end of previous year	321,008	411,595	58,420	4,174	117,070	912,268
of which leasing	1,565		87			1,652
Gross value	691,172	1,473,474	186,519	30,379	117,070	2,498,615
Accumulated depreciation	(370,164)	(1,061,879)	(128,099)	(26,204)		(1,586,346)
Net book value at the end of previous year	321,008	411,595	58,420	4,174	117,070	912,268
Leasing						
. aquisition through business combinations		2,872				2,872
. additions	7,886	36,030	10,077	187	212,610	266,790
. disposals	(2,223)	(810)	(884)	(74)	(2,661)	(6,653)
. depreciations (included in "Depreciation and impairments")	(28,341)	(93,751)	(16,829)	(553)		(139,474)
. net impairment losses recognized (included in "Depreciation and impairments")	(2,893)	(454)	(54)		0	(3,402)
. translation differences	(9,233)	(16,149)	(2,362)	(559)	(5,487)	(33,790)
. other movements	40,967	96,666	10,964	460	(149,105)	(49)
At the end of the financial 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	327,171	435,999	59,332	3,633	172,427	998,563
Leasing						
Gross value	2,406	59	140			2,606
Accumulated amortization	(960)	(59)	(58)			(1,077)
Net book value	1,447	0	82			1,529

The non-maintenance related additions to property, plant and equipment were up in Catalysis, linked to the addition of light duty and HDD production capabilities in Asia and Europe and the construction of the technology development centres in Japan and Brazil. Investments were also up in Energy Materials with capacity investments for cathode materials in Korea and China and the construction of a new precursor facility in Korea. In Recycling, capital expenditure continued to run at a high level as a result of the expansion of the sampling facilities and new water treatment and gas cleaning equipment in Hoboken, Belgium. Investments were stable in Performance Materials.

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
			2012	2013
ASSOCIATES				
Ganzhou Yi Hao Umicore Industries	China	CNY	40.00	40.00
IEQSA	Peru	PEN	40.00	40.00
Element Six Abrasives	Luxembourg	USD	40.22	40.22
Jiangmen Chancsun Umicore Industry Co., Ltd.	China	CNY	40.00	40.00
Todini	Italy	EUR	48.00	48.00
JOINT VENTURES				
ICT Japan	Japan	JPY	50.00	0.00
ICT USA	USA	USD	50.00	0.00
Ordeg	South Korea	KRW	50.00	50.00
Rezinal	Belgium	EUR	50.00	50.00
SolviCore GmbH & Co KG	Germany	EUR	50.00	50.00
SolviCore Management GmbH	Germany	EUR	50.00	50.00
BeLife	Belgium	EUR	49.00	49.00
BeLife intermediate	Belgium	EUR	51.00	51.00

A capital increase has been done in the joint venture Ordeg (South Korea) for EUR 7.5 million.

(EUR thousand)

	Net book value	Goodwill	Total
At the end of previous year	166,928	47,088	214,017
. capital increase	7,573		7,573
. profit for the year	(511)		(511)
. dividends	(14,331)		(14,331)
. additions			
. disposal			
. change in other reserves	381		381
. translation differences	(4,897)	(697)	(5,594)
. transfers	(143)		(143)
At the end of the year	155,001	46,390	201,390
of which joint ventures	64,451	355	62,806

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

	31/12/12	31/12/13
Assets	230,903	220,395
Liabilities	106,261	109,314
Turnover	299,397	277,239
Net result	13,849	1,426

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

(EUR thousand)

	31/12/12	31/12/13
Current assets	112,843	90,529
Non-current assets	24,438	27,158
Current liabilities	65,685	44,369
Non-current liabilities	7,853	7,279

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

(EUR thousand)

	31/12/12	31/12/13
Operating result	12,634	(167)
Financial result	(1,359)	(1,069)
Tax	(2,906)	(700)
Net result Group	8,369	(1,936)

# F18 Available-for-sale financial assets and loans granted

	A	vailale-for-sale financial assets	Loans granted
NON-CURRENT FINANCIAL ASSETS			
At the beginning of previous year		47,730	1,095
. Increase		0 /////	87
. decrease		70	3,858
. impairment losses (included in "Income from other financial instruments")		(399)	(7)
. reversals of impairment losses (included in "Income from other financial instruments")		505	0
. translation differences		(19)	54
. fair value recognized in equity		(10,788)	0
. other movements		6	0
At the end of previous year		37,105	5,087
. change in scope			
. increase		190	41
. decrease		(12)	(7)
. impairment losses (included in "Income from other financial instruments")	(a)	(3,967)	0
. translation differences		(29)	(149)
. fair value recognized in equity	(b)	(12,102)	0
. other movements			
At the end of the financial year		21,183	4,971
CURRENT FINANCIAL ASSETS			
At the end of the preceding financial year		3 /////	4,960
. change in scope		0 /////	(131)
. increase		0 //////	1,100
. write-downs (included in "Income from other financial instruments")		(3)	
. translation differences		0	(4)
. other		0 /////	8/
At the end of the financial year		0 //////	5,933

- (a) mainly related to impairment losses on the Nystar bond and to Pangaea.
- (b) mainly related to the fair value adjustment on the Nyrstar shares and to Pangaea.

### F19 Inventories

(EUR thousand)

	31/12/12	31/12/13
ANALYSIS OF INVENTORIES		
Base product with metal hedging - gross value	1,053,766	962,710
Base product without metal hedging - gross value	143,951	129,497
Consumables - gross value	80,377	64,402
Write-downs	(59,844)	(59,084)
Advances paid	11,047	1,866
Contracts in progress	5,811	6,869
Total inventories	1,235,108	1,106,259

Inventories have decreased by EUR 128.8 million, mainly driven by decreased quantities and lower metal prices. Impairments related to the devaluation of permanently tied up metal inventories have been taken for EUR 1.5 million.

Based on metal prices and currency exchange rates prevailing at the closing date, the value of metal inventory would be about EUR 707.4 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	31/12/12	31/12/13
NON CURRENT			
Cash guarantees and deposits		8,304	8,193
Other receivables maturing > 1 year		8,261	7,662
Assets employee benefits		453	483
Total		17,018	16,338
CURRENT			
Trade receivables (at cost)		671,963	622,472
Trade receivables (write down)		(10,202)	(8,275)
Other receivables (at cost)		82,782	71,488
Other receivables (write down)		(6,905)	(5,801)
Interest receivable		124	92
Fair value receivable financial instruments held for cash-flow hedging	F33	8,452	9,248
Fair value receivable other financial instruments	F33	8,437	6,863
Deferred charges and accrued income		33,726	20,324
Total		788,377	716,412

Current trade receivables have decreased by EUR 72.0 million. This decrease is mainly due to lower business activity.

The decrease in other current receivables is mainly due to VAT receivables.

Other non-current receivables include an amount of EUR 6,240 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)

					(E)	ik tilousaliu)
	Total	Not due	Overdue between			
			0-30 days	30-60 days	60-90 days	>90 days
AGEING BALANCE ANALYSIS AT THE END OF PREVIOUS YEAR						
Trade receivables (not including doubtful receivables) - at cost	660,721	559,568	75,475	17,316	1,420	6,941
Other receivables - at cost	82,781	76,421	4,050	897	19	1,394
AGEING BALANCE ANALYSIS AT THE END OF YEAR						
Trade receivables (not including doubtful receivables) - at cost	612,390	513,422	67,360	13,738	2,939	14,933
Other receivables - at cost	71,487	69,219	520	1,261	(187)	674

### Credit risk - trade receivables

(EUR thousand)

	Trade receivables (write-down)	Other receivables (write-down)	Total
AT THE BEGINNING OF PREVIOUS YEAR	(12,309)	(7,508)	(19,813)
. Change in scope			
. Impairment losses recognized in P&L	(994)		(994)
. Reversal of impairment losses	977	504	1,481
. Impairment written off against asset carrying amount	1,498		1,498
. Other movements	89	97	186
. Translation differences	538	3 //	541
At the end of previous year	(10,202)	(6,905)	(17,105)
AT THE BEGINNING OF THE FINANCIAL YEAR	(10,202)	(6,905)	(17,105)
. Change in scope	70		70
. Impairment losses recognized in the P&L	(2,849)	(462)	(3,311)
. Reversal of impairment losses	3,346	1,558	4,904
. Impairment written off against asset carrying amount	43		43
. Other movements	413	(3)	410
. Translation differences	899	10	909
At the end of the financial year	(8,282)	(5,802)	(14,082)

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 375 million of the group trade receivables 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 102 million of trade receivables with a global annual deductible of EUR 5 million and a maximum indemnity per year of EUR 50 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.

# F21 Deferred tax assets and liabilities

	31/12/2012	31/12/2013
TAX ASSETS AND LIABILITIES		
Income tax receivables	29,861	33,227
Deferred tax assets	91,772	90,530
Income tax payable	(35,519)	(64,696)
Deferred tax liabilities	(36,417)	(28,164)

	Asse	ts	Liabili	ties	Net	
	2012	2013	2012	2013	2012	2013
At the end of preceding financial year	88,491	91,772	(46,089)	(36,417)	42,402	55,355
Deferred tax recognized in the P&L	2,509	3,567	(3,463)	7,537	(954)	11,104
Deferred tax recognized in equity	1,998	715	12,946	848	14,945	1,563
Acquisitions through business combination	508	(2,259)		0	508	(2,259)
Translation adjustments	(1,720)	(3,820)	105	430	(1,615)	(3,390)
Transfer	(16)	561	83	(562)	67	(1)
Other movements	3	(6)	0	0	3 ///	(6)
At the end of financial year	91,772	90,530	(36,417)	(28,164)	55,355	62,366
DEFERRED TAX IN RESPECT OF EACH TYPE OF TEMPORARY DIFFERENCE						
Intangible assets	13,244	14,931	(14,259)	(16,302)	(1,015)	(1,371)
Goodwill on fully consolidated companies	186	174	(1,515)	(1,657)	(1,329)	(1,483)
Property, plant and equipment	4,595	4,379	(22,925)	(21,998)	(18,330)	(17,619
Investments accounted for using the equity method	0	0	0	0	0 ///	
Long term receivables	414	339	(3,075)	(3,318)	(2,661)	(2,972)
Inventories	27,462	22,187	(36,294)	(26,720)	(8,832)	(4,533)
Trade and other receivables	12,455	6,052	(5,243)	(6,808)	7,212	(756)
Group Shareholder's equity	93	95	(6,979)	(6,447)	(6,886)	(6,352
Long Term Financial Debt and other payable	448	331	(1,483)	(1,335)	(1,035)	(1,004
Provisions Employee Benefits	49,761	50,725	(412)	(975)	49,349	49,750
Provisions for Environment	19,289	19,120	(2,749)	(2,828)	16,540	16,29
Provisions for other liabilities and charges	7,970	7,673	(942)	(612)	7,028	7,06
Current Financial Debt	339	2,015	0	0	339	2,015
Current Provisions for Environment	4,510	5,135	(153)	0	4,357	5,135
Current Provisions for Other Liabilities & Charges	2,885	3,622	(161)	(51)	2,724	3,57
Trade and other payables	15,919	13,664	(15,106)	(2,532)	813	11,132
Total deferred tax due to temporary differences	159,570	150,442	(111,296)	(91,583)	48,274	58,859
Tax losses to carry forward	62,580	47,923			62,580	47,923
Investments deductions	5,023	3,771			5,023	3,77
Notional interest carried forward	17,506	10,425			17,506	10,425
Exempted dividends carried forward	1,603	1,117			1,603	1,117
Other	(1,428)	(670)			(1,428)	(670
Deferred tax assets not recognized	(78,203)	(59,059)			(78,203)	(59,059
Total tax assets/liabilities	166,651	153,949	(111,296)	(91,583)	55,355	62,366
Compensation of assets and liabilities within same entity	(74,879)	(63,419)	74,879	63,419	0	0
Net amount	91,772	90,530	(36,417)	(28,164)	55,355	62,366

	2012	2013	2012	2013
	Base	Base	Tax	Tax
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	241,120	207,629	78,203	59,059

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" (negative by EUR 321 thousand) and "Provisions for employee benefits" (positive by EUR 1,851 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 59,059 thousand mainly arise from tax losses (EUR 39,367 thousand), notional interests carried forward (EUR 10,425 thousand), exempted dividends carried forward (EUR 1,060 thousand), deductions for investments (EUR 3,771 thousand) and temporary differences on property plant and equipment (EUR 3,753 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)

	31/12/12	31/12/13
CASH AND CASH EQUIVALENTS		
Short-term investments : bank term deposits	11,826	13,636
Short-term investments : term deposits (other)	142	(21)
Cash-in-hands and bank current accounts	119,458	85,630
Total cash and cash equivalents	131,427	99,245
Bank overdrafts	439	932
(included in current financial debt in the balance sheet)		
Net cash as in Cash Flow Statement	130,988	98,313

All cash and cash equivalents are fully available for the Group.

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions.

Due to the dynamic nature of the underlying businesses, the group maintains flexibility in funding by maintaining availability under committed credit lines.

Excess liquidities are invested for very short periods and are spread over a limited number of banks, all enjoying a satisfactory credit rating.

# F23 Currency translation differences and other reserves

(EUR thousand)

	Available- for-sale financial assets reserves	Cash flow hedge reserves	Deferred taxes di- rectly rec- ognized in OCI	Changes in post employ-ment benefits, arising from changes in actuarial assumptions	Share- based payment reserves	Currency translation differences	Total
Balance at the beginning of previous year	23,674	(3,461)	18,440	(79,771)	31,620	(34,121)	(43,620)
Gains and losses recognized in other comprehensive income	(10,788)	(3,410)	18,829	(57,025)	5,325		(47,069)
Gains and losses derecognized out of other comprehensive income		10,834	(4,063)				6,771
Transfer from/to retained earnings				655	(7,197)		(6,542)
Change in scope Other movements				43			43
Exchange differences		(24)	32	370		(11,980)	(11,602)
Balance at the end of previous year	12,886	3,939	33,237	(135,728)	29,748	(46,101)	(102,020)
Balance at the beginning of the year	12,886	3,939	33,237	(135,728)	29,748	(46,101)	(102,020)
Gains and losses recognized in other comprehensive income	(12,102)	6,306	(725)	(2,701)	4,337		(4,884)
Gains and losses derecognized out of other comprehensive income		(4,459)	1,779				(2,680)
Transfer from/to retained earnings				4	(1,538)		(1,534)
Change in accounting policies				(1,296)			(1,296)
Change in scope Other movements				(11)			(12)
Exchange differences		67	(100)	1,389		(56,368)	(55,012)
Balance at the end of the year	784	5,853	34,191	(138,343)	32,547	(102,469)	(167,437)

The detail of the Group's share in currency translation differences and other reserves is as follows:

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 and to the investment in Pangaea (refer to note F18 on available-for sale financial assets).

The net gains recognized in the OCI regarding cash flow hedges (EUR 6,306 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 gains derecognized from OCI (EUR 4,459 thousand) are the fair values of the cash-flow hedging instruments existing at the opening which expired during the year. A gain of EUR 17.6 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 2,701 thousand. The adoption of IAS 19 revised has an impact of EUR 1,296 thousand on the OCI.

The 2013 shares and stock option plans have led to a share-based payment reserve increase of EUR 4,337 thousand (refer to note F10 on employee benefits). EUR 1,538 thousand, linked to exercized options, have been transferred to retained earnings.

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

## F24 Financial debt

(EUR thousand)

		(10	ik tilousallu,
		Other	
	Bank loans	loans	Tota
NON-CURRENT		1	
At the beginning of previous year	20,001	3,879	23,878
. Decrease	0	(1,007)	(1,007)
. Transfers	(20,000)	(10)	(20,010)
At the end of previous year	0	2,862	2,861
. Increase	20,000	4,229	24,229
. Decrease	0	(689)	(689)
. Translation differences	0	(3)	(3)
. Transfers	0	(2)	(2)
At the end of the financial year	20,000	6,397	26,396
		Other (	
	Bank loans	loans	Tota
CURRENT PORTION OF LONG-TERM FINANCIAL DEBTS			
At the end of the preceding financial year	100,000	930	100,930
. Increase / decrease	(100,000)	(250)	(100,250
At the end of the financial year	0	680	680

	Short term bank loans	Bank overdrafts	Short term loan : commercial paper	Other loans	Total
CURRENT					
At the end of the preceding financial year	32,387	438	213,565	3,727	250,117
. Increase / decrease (including CTD's)	40,164	493	(7,771)	4,156	37,042
At the end of the financial year	72,551	932	205,794	7,882	287,159

Notwithstanding the EUR 78.8 million net shares bought back in 2013, the net financial debt of the group has decreased by EUR 7 million mainly due to the positive operating cash flow generated during the year.

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 19.9 million on 31 December 2013 based on the DCF-method;
- short term borrowings for EUR 72.6 million. The maturity dates of these bank loans are very short term and are decided at the convenience of the treasury department at market conditions as part of its daily management of treasury operations.

The current financial debt also includes EUR 205.8 million of Commercial Papers with a term of under one year.

On 31 December 2013, there were no outstanding advances under the EUR 250 million Syndicated Bank Credit Facility maturing in July 2016 nor under the new EUR 215 million Syndicated Bank Credit Facility maturing in September 2018.

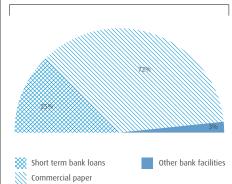
The aforementioned Syndicated Bank Credit Facilities require the Company to comply with certain financial covenants.

Umicore has not faced any breach of those covenants in 2013 or in previous years.

The long term debts mainly include Euro debts except for EUR 4.1 million which is originally a JPY loan.

The net gearing ratio end of 2013 of 11.1% (11.0% in 2012) is well within the group's targeted capital structure limits.





(EUR thousand)

	EUR Euro	USD US Dollar	Other currencies	Total
Analysis of long term debts by currencies (including current portion)				
Bank loans	20,000			20,000
Other loans	2,848	81	4,147	7,076
Non-current financial debts (including current portion)	22,848	81	4,147	27,076

# (EUR thousand)

	2012	2013
Non current financial debt	2,861	26,396
Current portion of non current financial debt	100,930	680
Current financial debt	250,117	287,159
Cash and cash equivalents	(131,427)	(99,245)
Net financial debt	222,481	214,990

# (EUR million)

	2012	2013
Net financial debt	222.5	215.0
Equity	1,805.8	1,723.4
Total	2,028.3	1,938.4
Gearing ratio (%)	11.0	11.1

# F25 Trade debt and other payables

(EUR thousand)

	Notes	31/12/12	31/12/13
NON-CURRENT			
Long-term trade payables		0 //	0
Other long-term debts		4,639	4,461
Investment grants and deferred income from grants		9,283	8,447
		13,922	12,908
CURRENT			
Trade payables		728,311	710,729
Advances received on contracts in progress		21,564	17,937
Tax payable (other than income tax)		16,664	8,796
Payroll and related charges		125,835	118,271
Other amounts payable		18,067	16,639
Dividends payable		7,518	7,485
Accrued interest payable		600	373
Fair value payable financial instrument held for cash flow hedging	F33	4,535	3,382
Fair value payable other financial instruments	F33	8,708	7,938
Accrued charges and deferred income		90,559	75,218
		1,022,361	966,767

Trade payables decreased by EUR 55.6 million, mainly due to lower volumes.

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

# F26 Liquidity of the financial liabilities

		Earliest	contractual ma	turity		
		1 to 3	3 Months -	1 to 5		
Previous financial year	< 1 Month	Months	1 Year	Years	> 5 years	Total
FINANCIAL DEBT						
Current						
Short term bank loans	2,535	5,635	24,218			32,387
Bank overdrafts	219	220				439
Short-term loan: commercial paper	213,565					213,565
Other loans	152	3,726	(152)			3,726
Current portion of long-term bank loans			100,000			100,000
Current portion of other long-term loans	39	78	813			930
Non-current						
Bank loans						
Other loans				2,861		2,861
TRADE AND OTHER PAYABLES						
Current						
Trade payables	476,548	245,914	5,849			728,311
Advances received on contracts in progress	3,324	11,645	6,595			21,564
Tax payable (other than income tax )	18,089	(4,225)	2,809			16,673
Payroll and related charges	48,061	28,087	49,686			125,834
Other amounts payable	4,293	11,742	2,032			18,067
Dividends payable	7,518					7,518
Accrued interest payable, third parties	11	571	18			600

(EUR thousand)

					(201	tilo asalia)
		Earliest c	ontractual ma	turity		
		1 to 3	3 Months -	1 to 5		
Previous financial year	< 1 Month	Months	1 Year	Years	> 5 years	Total
Fair value payable financial instrument held for cash flow hedging	2	499	3,326	708		4,535
Fair value payable other financial instruments	3,100	3,811	1,797	0		8,708
Accrued charges and deferred income	71,918	9,341	9,300			90,559
Non-current						
Long-term trade payables						
Other long-term debts					4,639	4,639
Investment grants and deferred income from grants				1,354	7,929	9,283

		Earliest	contractual ma	iturity		
		1 to 3	3 Months -	1 to 5		
Financial year	< 1 Month	Months		Years	> 5 years	Total
FINANCIAL DEBT					. //	
Current						
Short term bank loans	69,515	2,626	410			72,551
Bank overdrafts	932					932
Short-term loan: commercial paper	50,840	20,206	134,748			205,794
Other loans		7,882				7,882
Current portion of long-term bank loans						
Current portion of other long-term loans	39	78	563			680
Non-current						
Bank loans				20,000		20,000
Other loans				6,396		6,396
TRADE AND OTHER PAYABLES						
Current						
Trade payables	470,663	219,383	20,683			710,729
Advances received on contracts in progress	700	3,284	13,953			17,937
Tax payable (other than income tax )	9,037	(871)	630			8,796
Payroll and related charges	44,777	26,709	46,785			118,271
Other amounts payable	6,100	1,765	8,774			16,639
Dividends payable	7,485	0	0			7,485
Accrued interest payable, third parties	14	356	3			373
Fair value payable financial instrument held for cash flow hedging	251	842	1,992	297		3,382
Fair value payable other financial instruments	1,842	4,391	1,656	49		7,938
Accrued charges and deferred income	61,907	7,226	6,086			75,218
Non-current						
Long-term trade payables						
Other long-term debts				2,031	2,429	4,461
Investment grants and deferred income from grants				1,745	6,702	8,447

## 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- employment benefits, pensions and similar	Post- employment benefits - other	Termination benefits early retirement & similar	Other long-term employee benefits	Total
At the end of the previous year	186,721	22,379	33,207	16,669	258,975
. Change in accounting policies	1,164	0	(412)	0	753
. Increase (included in "Payroll and related benefits")	16,784	337	6,741	1,944	25,806
. Reversal (included in "Payroll and related benefits")	(1,101)	(399)	0	(343)	(1,844)
. Use (included in "Payroll and related benefits")	(14,633)	(469)	(9,840)	(1,528)	(26,470)
. Interest and discount rate impacts (included in "Finance cost - Net")	6,492	652	653	473	8,270
. Translation differences	(473)	(496)	(60)	(40)	(1,069)
. Transfers	(7)	(368)	530	(155)	0
. Recognized in other comprehensive income	3,535	(85)	0	0	3,451
. Other movements	(8)	(62)	35	0	(35)
At the end of the financial year	198,474	21,489	30,855	17,020	267,837

(EUR thousand)

		Movements	
	31/12/12	2013	31/12/13
Belgium	39,688	4,309	43,997
France	27,476	184	27,660
Germany	173,933	8,660	182,593
Subtotal	241,097	13,153	254,250
Other entities	17,878	(4,291)	13,587
Total	258,975	8,862	267,837

(EUR thousand)

Reimbursement rights	
At the end of the previous year	6,674
Actual reimbursement	(407)
Expected return	210
Actuarial gains and losses on reimbursement rights	(237)
At the end of the financial year	6,240

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.

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, age and length of service. These retirement plans represent a defined benefit obligation of EUR 163.1 million and assets for EUR 119.1 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.

### Germany Characteristics of the Defined Benefit plans

The post-employment benefits are mainly unfunded pension plans of defined benefit type providing retirement, disability and death benefits. All benefit plans are based on final or final average pay beside the deferred compensation plan. The benefits of the deferred compensation plan are based on annual converted salary and provide a guaranteed interest of 3.0% p.a. (6.0% p.a. for salary conversions before 2014). All retirement plans represent a defined benefit obligation of EUR 189.9 million and assets for EUR 7.3 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.

#### France Characteristics of the Defined Benefit plans

In France, three 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 jubilee plan: An amount is paid at 20, 30, 35 and 40 years of seniority. 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 29.5 million and assets for EUR 1.8 million.

### 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 (80%), shares (9%) and real estate (4%).

#### Fair values of plan assets

The fair values of the equity and debt instruments of the funds are determined based on quoted market prices in active markets.

### Plan curtailment or settlement

A restructuring plan occurred as of December 18, 2013. This concerns 13 executive employees and 25 non-executive employees.

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. This risk has been assessed and the additional obligation expected until end of 2022 has been included in the pension obligation.
- The old deferred compensation plan provides a quaranteed 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 quarantee a minimum return of 3.75% on employee contributions and 3.25% on employer contributions.

		(,
	2012	2013
CHANGE IN BENEFIT OBLIGATION		
Benefit obligation at beginning of the year	319,517	399,193
Change in accounting policies		(835)
Current service cost	21,526	21,781
Interest cost	14,782	13,250
Plan Participants' Contributions	553	464
Amendments	899	0
Actuarial (gain)/loss - changes in demographic assumptions	1,346	3,088
Actuarial (gain)/loss - changes in financial assumptions	59,602	27,421
Actuarial (gain)/loss - experience adjustements	5,515	5,274
Benefits paid from plan/company	(24,241)	(25,056)
Expenses paid	(75)	(983)
Net transfer in/(out) (including the effect of any business combinations/divestitures)	(62)	3
Exchange rate changes	(169)	(2,843)
Benefit obligation at end of the year	399,193	440,757

(EUR thousand)

	2012	2013
CHANGE IN PLAN ASSETS		
Fair value of plan assets at the beginning of the year	125,785	139,573
Change in accounting policies	0	(920)
Expected return on plan assets	5,434	4,586
Actuarial gain/(loss) on plan assets	5,834	31,125
Employer contributions	26,397	26,036
Member contributions	553	464
Benefits paid from plan/company	(24,241)	(25,056)
Expenses paid	(75)	(1,057)
Net transfer in/(out) (including the effect of any business combinations/divestitures)	1 /	0
Exchange rate changes	(115)	(1,797)
Fair value of plan assets at the end of the year	139,573	172,954

Pension plans mainly in Belgium, France, Liechtenstein, Netherlands, USA, Japan and Norway are wholly or partly funded with assets covering a substantial part of the obligations. All other plans have no material funding or are unfunded.

(FIID thousand)

		(EUR thousand)
	2012	2013
AMOUNT RECOGNIZED IN THE BALANCE SHEET		
Defined benefit obligations	399,193	440,757
Fair value of plan assets	139,573	172,954
Funded Status	259,620	267,803
Effect of asset ceiling/onerous liability		
Net liability (asset)	259,620	267,803
COMPONENTS OF PENSION COSTS		
Amounts recognized in profit and loss statement		
Current service cost	22,485	21,781
Interest cost	14,782	13,250
Interest income on plan assets	(5,434)	(4,586)
Expected return on reimbursement rights	(261)	(210)
Remeasurement of Other Long Term Benefits	3,561	1,287
Administrative expenses and taxes	0	7
Total pension cost recognized in P&L account	35,133	31,593
Amounts recognized in other comprehensive income		
Cumulative actuarial gains and losses at opening	55,906	110,872
Change in accounting policies		1,296
Actuarial gains and losses of the year	54,872	3,689
Transfer from/to retained earnings		
Minorities	669	(96
Actuarial gains and losses on reimbursement rights	1 //////	
Other movements	(698)	
Exchange differences	121	(360)
Total recognized in the OCI at subsidiaries	110,872	115,408
Actuarial gains and losses at associates and joint ventures	24,856	22,934
Total recognized in the OCI	135,728	138,342
Remeasurements (recognized in other comprehensive income)		
Effect of changes in demographic assumptions	662	2,984
Effect of changes in financial assumptions	57,477	27,284
Effect of experience adjustments	4,767	4,205
(Return) on plan assets (excluding interest income) *	(5,835)	(31,100
(Return) on reimbursement rights (excluding interest income)	(826)	237
Changes in asset ceiling/onerous liability (excluding interest income)	0	
Total remeasurements included in Other Comprehensive Income	56,245	3,610

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.

	2012	2013
PRINCIPAL ACTUARIAL ASSUMPTIONS		
Weighted average assumptions to determine benefit obligations at year end		
Discount rate (%)	3.29	3.38
Rate of compensation increase (%)	2.95	2.99
Rate of price inflation (%)	2.07	2.05
Rate of pension increase (%)	1.60	1.64
Weighted average assumptions used to determine net cost		
Discount rate (%)	4.72	3.30
Rate of compensation increase (%)	3.08	2.96
Rate of price inflation (%)	2.07	2.07
Rate of pension increase (%)	1.56	1.60

		2013		
	Fair value of all plan assets	Fair Value of plan assets with quoted market price		
Plan assets				
Cash and cash equivalents	4,517	4,419		
Equity instruments	35,914	35,736		
Debt instruments	64,751	63,291		
Real estate	8,132	8,068		
Derivatives				
Investment funds				
Assets held by insurance company	58,985			
Other	656	607		
Unallocated assets				
Total plan assets	172,955	112,121		

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.

	2013
Valuation	Valuation
trend trend	trend
+0,25%	-0,25%
Sensitivity to trend rate assumptions on discount rate	
Effect on the defined benefit obligation 427,959	454,140
Weighted average duration of benefit obligation (in years) 12,89	13,10
Sensitivity to trend rate assumptions on inflation rate	
Effect on the defined benefit obligation 449,032	433,020
Sensitivity to trend rate assumptions on salary increase rate	
Effect on the defined benefit obligation 446,170	436,169

## (EUR thousand)

	2012	2013
BALANCE SHEET RECONCILIATION		
Balance sheet liability (asset) as of previous year	193,023	258,975
Change in accounting policies		753
Pension expense recognized in P&L in the financial year	35,132	31,593
Amounts recognized in SoCI	56,249	3,610
Employer contributions via funds in the financial year	(13,356)	(12,528)
Employer contributions paid directly in the financial year	(13,042)	(13,508)
Credit to reimbursements	1,087	(27)
Net transfer in/(out) (including the effect of any business combinations/diversitures)	(65)	0
Exchange rate adjustment - (gain)/loss	(56)	(1,031)
Balance sheet liability (asset) as of end of the year	258,975	267,837

At 31 December	2009	2010	2011	2012	2013
Present value of defined benefit obligation	294,378	312,573	319,517	399,193	440,757
Fair value of plan assets	110,898	120,945	125,785	139,573	172,954
Deficit (surplus) in the plan	183,480	191,628	193,732	259,620	267,803
Experience adjustments on plan assets	(2,734)	(780)	6,871	(5,834)	(31,125)
Experience adjustments on plan liabilities	1,407	(476)	6,929	5,515	5,274

The impact of IAS 19 revised on 2012 figures was insignificant as compared to the provision for employee benefits and it was therefore decided not to change 2012 figures but to restate the opening on 1 January 2013 (under the line "Change in accounting policies").

(EUR thousand)

	2013
EXPECTED CASH FLOWS FOR FOLLOWING YEAR	
Expected employer contributions	25,341/
Expected total benefit payments	
Year 1	25,378
Year 2	19,243
Year 3	19,511
Year 4	20,971/
Year 5	18,906
Next 5 years	102,020

# F28 Stock option plans granted by the company

			Exercise price EUR (the	Number of
			exercice price may	options
			be higher in certain	still to be
Plan	Expiry date	Exercise	countries)	exercised
ISOP 2006	02/03/2016	all working days of	22.55	92,000
		Euronext Brussels	24.00	7,500
	02/03/2013		22.55	0
				99,500
ISOP 2007	16/02/2017	all working days of	26.55	168,500
		Euronext Brussels	27.36	10,000
	16/02/2014		26.55	4,500
				183,000
ISOP 2008	14/04/2018	all working days of	32.57	205,250
		Euronext Brussels	32.71	26,000
	14/04/2015		32.57	177,750
			32.71	1,250
				410,250
ISOP 2009	15/02/2016	all working days of	14.44	266,000
		Euronext Brussels	14.68	21,000
				287,000
ISOP 2010	14/02/2017	all working days of	22.30	528,338
		Euronext Brussels		
				528,338
ISOP 2011	13/02/2018	all working days of	38.07	581,375
		Euronext Brussels	39.25	65,000
			38.54	31,000
				677,375
ISOP 2012	12/02/2019	all working days of	35.32	514,500
		Euronext Brussels	37.67	56,500
			36.00	32,375
				603,375
ISOP 2013	12/02/2020	all working days of	36.38	533,750
		Euronext Brussels	37.67	55,500
				589,250
Total				3,378,088

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 existing treasury shares. Options which have not been exercised before the expiry date elapse automatically.

(EUR thousand)

	201		20	2013		
	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price		
DETAILS OF THE SHARE OPTIONS OUTSTANDING DURING THE YEAR						
Outstanding at the beginning of the year	3,593,375	26.35	3,090,750	29.17		
Granted during the year	603,375	35.58	589,250	36.59		
Exercised during the year	1,106,000	23.51	301,912	21.23		
Expired during the year						
Outstanding at the end of the year	3,090,750	29.17	3,378,088	31.18		
Exercisable at the end of the year	3,090,750	29.17	3,378,088	31.18		

The options outstanding at the end of the year have a weighted average contractual life until January 2018.

# F29 Environmental provisions

(EUR thousand)

Provisions for soil clean-up & site rehabilitation	Other environmental provisions	Total
80,441	2,549	82,990
9,518	1,436	10,954
(236)		(236)
(11,523)	(733)	(12,256)
398		398
(1,867)		(1,867)
76,732	3,252	79,984
63,788	1,851	65,639
12,945	1,402	14,347
	clean-up & site rehabilitation 80,441 9,518 (236) (11,523) 398 (1,867)	clean-up & site rehabilitation         environmental provisions           80,441         2,549           9,518         1,436           (236)         (733)           398         (1,867)

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 3,006 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 the remediation of historical pollution caused on site and in surroundings in Brazil prior to Umicore's acquisition in 2003.

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 surrondings), in France (Viviez) and in Belgium (Hoboken, Olen and Angleur).

In 2013, no major movements occurred 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 settlement of CO, emission rights in Belgium.

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

# F30 Provisions for other liabilities and charges

(EUR thousand)

	Provisions for reorganization & restructuring	Provisions for other liabilities and charges	Total
At the end of the previous year	12,940	45,060	58,000
. Change in scope			
. Increase	6,312	5,208	11,520
. Reversal	(750)	(1,684)	(2,434)
. Use (included in "Other operating expenses")	(3,375)	(4,655)	(8,030)
. Translation differences	(190)	(4,491)	(4,681)
. Transfers	(105)	0	(105)
. Financial charges			
At the end of the financial year	14,831	39,443	54,270
Of which - Non Current	11,459	26,650	38,109
- Current	3,372	12,793	16,165

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 3,730 thousand, the new provisions being more than compensated by the reversals, the uses and the translation differences.

Additional provisions for reorganization and restructuring have been taken mainly in France (Bagnolet site and Climeta).

The increases and decreases in provisions for other liabilities and charges concern liabilities that are mainly related to warranty risks, onerous contracts and litigations. They affect mainly France, Belgium and North America.

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 430 thousand, leaving a closing balance of EUR 4,857 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.

# F31 Capital employed

CAPITAL EMPLOYED AND ROCE (EUR thousand)

CAFITAL LIMITOTED AND ROCE				(LOK tilousaliu)
	Note	31/12/2012	30/06/2013	31/12/2013
Intangible assets	F14, F15	200,903	202,836	218,251
Property, plant and equipment	F16	912,268	935,221	998,563
Investments accounted for under the equity method	F17	214,015	199,683	201,391
Available-for-sale financial assets	F18	37,105	27,423	21,183
Inventories	F19	1,235,107	1,114,535	1,106,259
Non current receivable (excluding assets employee benefits)	F20	16,566	15,991	15,856
Adjusted current accounts receivable		774,633	894,555	705,591
Income tax receivable		29,861	23,065	33,227
Assets included in capital employed		3,420,458	3,413,309	3,300,319
Non-current trade and other payables	F25	13,921	13,629	12,907
Adjusted current accounts payable		1,017,827	1,049,498	963,385
Translation reserves	F23	(46,103)	(68,233)	(102,471)
Non-current provisions	F29, F30	110,271	111,672	103,749
Current provisions	F29, F30	30,720	35,147	30,511
Income tax payable		35,519	46,852	64,696
Liabilities included in capital employed		1,162,155	1,188,564	1,072,778
Capital employed		2,258,303	2,224,746	2,227,542
IAS 39 and eliminations		(1,094)	(11,358)	(6,026)
Capital employed as published		2,259,397	2,236,103	2,233,568
Average Capital Employed in half year preceding closing date		2,247,129	2,247,750	2,234,836
Average Capital Employed in year preceding closing date		2,224,486		2,241,293
Recurring EBIT in year preceding closing date	F9	372,097		303,967
ROCE in year preceding closing date		16.73%		13.56%

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

					Carry	ing amount
			Held for		Loans,	
			trading -	Cash Flow	гесеіva-	
			no hedge	hedge ac-	bles and	Available-
As at the end of previous year	Level	Fair value	accounting	counting	payables	for-sale
ASSETS						
Available-for-sale financial assets		37,108				37,108
Available-for-sale financial assets – Shares	1 - 2	37,108				37,108
Loans granted		10,047			10,047	
Loans to associates and non consolidated affiliates	2	10,047			10,047	
Trade and other receivables		805,395	8,437	8,452	788,506	
Non-current						
Cash guarantees and deposits	3	8,304			8,304	
Other receivables maturing in more than 1 year	3	8,261			8,261	
Assets employee benefits	3	453			453	
Current						
Trade receivables (at cost)	3	671,963			671,963	
Trade receivables (write-down)	3	(10,202)			(10,202)	
Other receivables (at cost)	3	82,782			82,782	
Other receivables (write-down)	3	(6,905)			(6,905)	
Interest receivable	3	124			124	
Fair value of financial instruments held for cash-flow hedging	2	8,452		8,452		
Fair value receivable other financial instruments	2	8,437	8,437			
Deferred charges and accrued income	3	33,726			33,726	
Cash and cash equivalents		131,426			131,426	
Short-term investments: bank term deposits		11,826			11,826	
Short-term investments: term deposits (other)		142			142	
Cash-in-hand and bank current accounts		119,458			119,458	
TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)		983,976	8,437	8,452	929,979	37,108
		703/770	0) 137	0,132	7_7/77	
LIABILITIES						
Financial debt		354,899			353,909	
Non-current						
Bank loans	2	0			0	
Other loans	2	2,862			2,862	
Current						
Short term bank loans	2	133,377			132,387	
Bank overdrafts	2	439			439	
Short term loan: commercial paper	2	213,565			213,565	
Other loans	2	4,656			4,656	
Trade and other payables		1,036,283	8,708	4,535	1,023,040	
Non-current		1,030,203	0,100	7,333	1,023,040	
Long term trade payables						
Other long term debts	3	4,639			4,639	
Investments grants and deferred income from grants	3	9,283			9,283	
Current		7,203			7,203	
Trade payables	ວ	720 211			720 211	
Advances received on contracts in progress	3	728,311			728,311	
	3	21,564			21,564	
Tax - other than income tax - payable	3	16,664			16,664	
Payroll and related charges	3	125,835			125,835	

(EUR thousand)

					Саггу	ing amount
As at the end of previous year	Level	Fair value		Cash Flow hedge ac- counting	Loans, receiva- bles and payables	Available- for-sale
Other amounts payable	3	18,067			18,067	
Dividends payable	3	7,518			7,518	
Accrued interest payable	3	600			600	
Fair value financial instrument held for cash flow hedging	2	4,535		4,535		
Fair value payable other financial instruments	2	8,708	8,708			
Accrued charges and deferred income	3	90,559			90,559	
TOTAL OF FINANCIAL INSTRUMENTS (LIABILITIES)		1,391,182	8,708	4,535	1,376,949	0

(EUR thousand) Carrying amount Held for As at the end of the financial year Level Fair value for-sale **ASSETS** Available-for-sale financial assets 21,183 21,183 Available-for-sale financial assets - Shares 21,183 21,183 Loans granted 10,904 10,904 Loans to associates and non consolidated affiliates 10.904 10.904 Trade and other receivables 732,750 6,863 9,248 716,639 Non-current 3 Cash guarantees and deposits 8,193 8,193 3 Other receivables maturing in more than 1 year 7,662 7,662 Assets employee benefits 3 483 483 Current Trade receivables (at cost) 622,472 622,472 Trade receivables (write-down) (8,275)(8,275)Other receivables (at cost) 71,488 71,488 Other receivables (write-down) (5,801)(5,801)92 Interest receivable Fair value of financial instruments held for cash-flow hedging 9,248 Fair value receivable other financial instruments 6,863 6,863 Deferred charges and accrued income 20,324 20,324 Cash and cash equivalents 99,245 99,245 Short-term investments: bank term deposits 13,636 13,636 Short-term investments: term deposits (other) (21)Cash-in-hand and bank current accounts 85,630 85,630 **TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)** 864,082 6,863 9,248 826,788 21,183 LIABILITIES Financial debt 314,136 314,236 Non-current Bank loans 19,900 20.000 2 Other loans 6,397 6,397 Current Short term bank loans 72,551 72,551

(EUR thousand)

				•	eok tilousaliu)
				Саггу	ing amount
		Held for		Loans,	
		trading -	Cash Flow	receiva-	
		no hedge	hedge ac-	bles and	Available-
Level	Fair value	accounting	counting	payables	for-sale
2	932		J	932	
2	205,794			205,794	
2	8,562			8,562	
	979,676	7,938	3,382	968,356	
	0				
3	4,461			4,461	
3	8,447			8,447	
3	710,729			710,729	
3	17,937			17,937	
3	8,796			8,796	
3	118,271			118,271	
3	16,639			16,639	
3	7,485			7,485	
3	373			373	
2	3,382		3,382		
2	7,938	7,938			
3	75,218			75,218	
	1,293,812	7,938	3,382	1,282,592	0
	2 2 2 3 3 3 3 3 3 3 3 3 2 2	2 205,794 2 8,562 979,676 0 3 4,461 3 8,447 3 710,729 3 17,937 3 8,796 3 118,271 3 16,639 3 7,485 3 373 2 3,382 2 7,938 3 75,218	no hedge Level Fair value accounting 2 932 2 205,794 2 8,562 979,676 7,938  0 0 3 4,461 3 8,447  3 710,729 3 17,937 3 8,796 3 118,271 3 16,639 3 7,485 3 373 2 3,382 2 7,938 7,938 3 75,218	Level         Fair value         trading - no hedge accounting         Cash Flow hedge accounting           2         932         counting           2         255,794         counting           2         8,562         strading - counting           3         4,862         strading - counting           3         79,676         7,938         3,382           3         4,461         strading - counting         strading - counting           3         71,072         strading - counting         strading - counting - co	Carry           Held for trading - trading - trading - cash Flow no hedge hedge ac-bles and bles and bles and bles and payables           2         932         932         932         932         932         932         932         932         932         932         932         95,794         205,794         205,794         205,794         205,794         205,794         205,794         968,356         968,356         968,356         968,356         968,356         968,356         968,356         979,676         710,729         3170,729         710,729         317,937         370,729         3710,729

Loans and debt have been issued at market rate which would not create any major differences with effective interest expense. All categories of financial instruments of Umicore are at fair value except the non-current bank and other loans for which the carrying amounts differ from the fair value (see note F24).

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period.

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques, mainly discounted cash-flow, using 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 except for the Nyrstar's bond which is level 2 (for an amount of EUR 5.0 millions). 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 6.9 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 4.1 million higher/lower if the electricity prices would strengthen/weaken by 10%.

The fair value on other commodity sales financial instruments would have been EUR 11.8 million lower/higher and the fair value on other commodity purchases financial instruments would have been EUR 11.8 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 1.4 million higher if the Euro would strengthen against USD by 10% and would have been EUR 1.8 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 6.0 million higher if the Euro would strengthen against ZAR by 10% and would have been EUR 4.9 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 1.6 million lower if the USD would strengthen against KRW by 10% and would have been EUR 2.3 million higher if the USD would weaken against KRW by 10%.

The fair value of other forward currency contracts sold would have been EUR 26.3 million higher if the Euro would strengthen against USD by 10% and would have EUR 32.1 million lower if the Euro would weaken against USD by 10%.

The fair value of other forward currency contracts bought would have been EUR 5.3 million lower if the Euro would strengthen against USD by 10% and would have been EUR 6.4 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 22.8 million lower if the Euro would strengthen against USD by 10% and would have been EUR 27.9 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 val	ue
	31/12/2012	31/12/2013	31/12/2012	31/12/2013
Forward commodities sales	97,164	76,635	6,232	8,051
Forward commodities purchases	(22,201)	(42,678)	(1,857)	(1,695)
Forward currency contracts sales	88,980	121,471	(458)	(377)
Forward currency contracts purchases		3,115		0
Forward IRS contracts				(113)
Total fair value impact subsidiaries			3,917	5,866
Recognized under trade and other receivables			8,452	9,248
Recognized under trade and other payables			(4,535)	(3,382)
Total fair value impact associates and joint ventures			22	(13)
Total			3,939	5,853

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: gold, silver, palladium and copper.

The forward commodity purchase contracts are set up to hedge primarily the electricity price risks.

The forward currency contracts are set up to hedge USD towards EUR, KRW, BRL and NOK and EUR towards NOK and ZAR.

The average maturity date of financial instruments related to cash-flow hedging is December 2014 for the forward commodities sold and November 2014 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 2012 and 2013.

### 33.2 Other financial instruments

(EUR thousand)

	Notional or Contra	ctual amount	Fair val	ue
	31/12/2012	31/12/2013	31/12/2012	31/12/2013
Forward commodities sales	99,771	139,201	953	(591)
Forward commodities purchases	(118,934)	(120,116)	(4,785)	(2,002)
Forward currency contracts sales	362,118	305,893	3,719	3,463
Forward currency contracts purchases	(115,685)	(77,691)	(158)	(1,944)
Total fair value impact subsidiaries			(271)	(1,074)
Recognized under trade and other receivables			8,437	6,863
Recognized under trade and other payables			(8,708)	(7,938)
Total			(271)	(1,074)

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.

	Earliest contractual maturity (undiscounted)				
		1 to 3	3 Months - 1		
As at the end of previous year	< 1 Month	Months	Year	1 to 5 Years	Total
FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)					
Commodity risk					
Total forward purchases (CFH)	0	1,668	4,747	0	6,415
Total forward sales (other)	386	899	2,468	0	3,754
Total forward purchases (other)	699	266	19	(27)	957
FX Risk					
Forward currency contracts sales (CFH)	175	358	1,641	1	2,174
Forward currency contracts sales (other)	3,405	(8)	322	0	3,719
Forward currency contracts purchases (other)	4	3	0	0	Ī
FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)					
Commodity risk					
Total forward sales (CFH)	0	19	(193)	0	(174)
Total forward purchases (CFH)	(2)	(52)	(1,112)	(708)	(1,873)
Total forward sales (other)	(1,329)	(1,288)	(5)	0	(2,621)
Total forward purchases (other)	(1,709)	(2,403)	(1,810)	0	(5,921)
FX Risk					
Forward currency contracts sales (CFH)	0	(466)	(2,166)	0	(2,632)
Forward currency contracts sales (other)	0	0	0	0	0
Forward currency contracts purchases (other)	(63)	(120)	18	0	(166)

	Earliest contractual maturity (undiscounted)				
		1 to 3	3 Months		
As at the end of the financial year	< 1 Month	Months	- 1 Year	1 to 5 Years	Total
FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)					
Commodity risk					
Total forward sales (CFH)	578	577	3,538	3,336	8,029
Total forward purchases (CFH)					
Total forward sales (other)	91	1,168	19	0 ///	1,278
Total forward purchases (other)	899	871	344	8 ///	2,122
FX Risk					
Forward currency contracts sales (CFH)	116	216	861	26	1,219
Forward currency contracts sales (other)	2,033	444	541	445	3,463
Forward currency contracts purchases (other)	0	0	0	0 ///	0
FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)					
Interest rate risk					
Interest rate swaps	0	0	0	(113)	(113)
Commodity risk					
Total forward sales (CFH)	0	2	8	13 ///	23
Total forward purchases (CFH)	6	36	(735)	(1,002)	(1,695)
Total forward sales (other)	(1,036)	(636)	(198)	0 ///	(1,870)
Total forward purchases (other)	(720)	(3,401)	(2)	0 ///	(4,124)
FX Risk					
Forward currency contracts sales (CFH)	(257)	(880)	(1,266)	805	(1,596)
Forward currency contracts purchases (CFH)	0	0	0	0 ///	0
Forward currency contracts sales (other)	0	0	0	0 ///	0
Forward currency contracts purchases (other)	(86)	(354)	(1,456)	(49)	(1,944)

## 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)

	(E	ok tilousaliu)
	2012	2013
ADJUSTMENTS FOR NON CASH TRANSACTIONS		
Depreciations	151,959	158,622
Adjustment IAS 39	6,278	1,022
(Reversal) Impairment charges	29,326	15,356
Mark to market of inventories and commitments	(28,740)	2,663
Exchange difference on long-term loans	(341)	742
Inventories and bad debt provisions	3,946	885
Depreciation on government grants	(327)	(385)
Share-based payments	5,325	4,337
Change in provisions	(1,206)	5,375
<del></del>	166,220	188,618
ADJUSTMENTS FOR ITEMS TO DISCLOSE SEPARATELY OR UNDER INVESTING AND FINANCING CASH FLOWS		
Tax charge of the period	59,688	52,386
Interest (income) charges	6,103	2,609
(Gain) loss on disposal of fixed assets	43	(2,267)
Dividend income	(913)	(918)
	64,922	51,811
CHANGE IN WORKING CAPITAL REQUIREMENT ANALYSIS		
Inventories	69,903	128,847
Trade and other receivables	63,969	69,310
Trade and other payables	(149,473)	(27,432)
As in the consolidated balance sheet	(15,601)	170,725
Non-cash items (*)	21,485	(3,314)
Items disclosed elsewhere (**)	39,665	(24,746)
Impact of business combination	9,131	6,509
Currency translation differences	(20,620)	(52,300)
As in the consolidated cash flow statement	34,060	96,873

<sup>(\*)</sup> Non cash items are mainly linked to mark to market of inventories and commitments, strategic and transactional hedging and inventories and bad debt provisions. (\*\*) Item disclosed elsewhere are mainly due to changes in interest, dividend and tax receivable and payable.

	Net cash and cash equivalent	Loans (w/o bank overdrafts)	Net fi	nancial debt
At the end of previous year	130,989	353,469		222,480
Cash flow of the period	(32,675)	(40,166)		(7,491)
At the end of the financial year	98,313	313,303		214,990

## 34.2 Net cash flow generated by operating activities

Operating cash flow after tax is EUR 500.8 million. Working capital requirements decreased by EUR 96.9 million, resulting from lower quantities but also lower metal prices.

### 34.3 Net cash flow used in investing activities

Net cash used in investing activities increased by EUR 49.6 million in 2013. Capital expenditure reached EUR 280 million if capitalized R&D costs are excluded as per the new Umicore definition of the capital expenditures (refer to Glossary). The vast majority of capital expenditures relates to Vision 2015 growth projects. Compared to 2012, investments were up in Catalysis, linked to the addition of light duty and HDD production capabilities in Asia and Europe and the construction of the technology development centres in Japan and Brazil. Investments were also up in Energy Materials with capacity investments for cathode materials in Korea and China and the construction of a new precursor facility in Korea. In Recycling, capital expenditure continued to run at a high level as a result of the expansion of the sampling facilities and new water treatment and gas cleaning equipment in Hoboken, Belgium. Investments were stable in Performance Materials.

The acquisitions include EUR 25.5 million of intangibles coming mainly from the capitalization of costs linked to new information systems and development expenses (see note F14). The acquisition of new subsidiaries (net of cash acquired) is linked to the acquisition of Palm Commodities International.

## 34.4 Net cash flow used in financing activities

The cash used in financing activities is mainly the consequence of the net decrease of indebtedness (EUR 38.5 million), the buyback of own shares netted with the use of own shares to exercize the options (EUR 78.8 million), the capital decrease in minorities (EUR 5.8 million) and the payment of dividends (EUR 115.2 million) and of interest (EUR 2.6 million).

(EUR thousand)

	2012	2013
Acquisition of tangible assets	227,770	266,741
Acquisition of intangible assets	25,688	26,970
Acquisitions of assets	253,458	293,711
Capitalized R&D	17,713	14,096
Capital expenditure	235,745	279,615

## F35 Rights and commitments

	2012	2013
Guarantees constituted by third parties on behalf of the Group	64,008	48,258
Guarantees constituted by the Group on behalf of third parties	8,516	4,746
Guarantees received	105,356	103,955
Goods and titles held by third parties in their own names but at the Group's risk	414,793	293,442
Commitments to acquire and sell fixed assets	225	2,060
Commercial commitments for commodities purchased (to be received)	74,178	100,312
Commercial commitments for commodities sold (to be delivered)	133,512	141,176
Goods and titles of third parties held by the Group	1,878,924	1,080,004
Miscellaneous rights and commitments	3,884	3,542
Total	2,683,396	1,777,495

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## 35.1 Guarantees constituted by third parties on behalf of the Group

are secured and unsecured guarantees given by third parties to the creditors of the group guaranteeing that the Group's debts and commitments, actual and potential, will be satisfactorily discharged.

### 35.2 Guarantees constituted by the group on behalf of third parties

are guarantees or irrevocable undertakings given by the Group in favour of third parties guaranteeing the satisfactory discharge of debts or of existing or potential commitments by the third party to its creditors.

There are no loan commitments given to third parties.

### 35.3 Guarantees received

are pledges and guarantees received guaranteeing the satisfactory discharge of debts and existing and potential commitments of third parties towards the Group, with the exception of guarantees and security in cash.

The guarantees received are mainly related to supplier guarantees backed by bank institutions. Those guarantees are set up to cover the good execution of work by the supplier. Some guarantees received are related to customer guarantees, received mainly from a customer's mother company on behalf of one of its subsidiaries. A minor part of the received guarantees is related to rent guarantees.

All guarantees are taken at normal market conditions and their fair value is equivalent to the carrying amount. No re-pledge has been done on any of those guarantees.

## 35.4 Goods and titles held by third parties in their own names but at the Group's risk

represent goods and titles included in the Group balance sheet for which the Group bears the risk and takes the profit, but where these goods and titles are not present on the premises of the Group . It concerns mainly inventories leased out to third parties or held under consignment or under tolling agreement by third parties.

### 35.5 Commercial commitments

are firm commitments to deliver or receive metals to customers or from suppliers at fixed prices.

### 35.6 Goods and titles of third parties held by the Group

are goods and titles held by the group, but which are not owned by the Group. It concerns mainly third party inventories leased in or held under consignment or tolling agreements with third parties.

The Group leases metals (particularly gold and silver) from and to banks and other third parties for specified, mostly short term, periods and for which the group pays or receives fees. As at 31 December 2013, there was a net lease-in position for EUR 248 million vs. EUR 631 million at end of 2012. This decrease is caused by lower quantities and lower prices of leased metals.

### 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 Environmental issues

As published last year, soil and groundwater pollution, including some caused by historical activities at the Guarulhos site (Brazil) before its acquisition by Umicore in 2003, was found in adjacent areas including an area originally intended for re-urbanization. In 2010, it was decided to address the contaminated groundwater on-site, in order to speed up the remediation. To that end, an hydraulic barrier was constructed accompanied by pilot tests in order to design the most effective full scale operations. Further, Umicore has assessed the impact the historical contamination had on the areas outside the operational plant and agreed with the local authorities to a program. In 2013, Umicore took some provisions to that effect (please refer to the note F29 on Environmental provisions).

## 36.2 Contingent pension liability at Element Six

Following the winding up of the Element Six Contributory Pension Plan in Ireland in 2011, certain members of the scheme have brought a claim against the trustees of the scheme. Element Six has provided an indemnity to the trustees, which includes this claim and any award of damages or costs which may be made by the Courts should the claim be proven. The trustees successfully defended the claim and a verdict in their favor was handed down in early February 2014. Although this verdict remains subject to appeal and further legal action on this matter cannot be ruled out, the status of the case does not warrant for any provision to be raised in the financial statements for 2013.

### 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, on aggregate, to have a material adverse effect on the financial condition of Umicore.

## F37 Related parties

(EUR thousand)

	2012	2013
TRANSACTIONS WITH JOINT VENTURES AND ASSOCIATES		
Operating income	87,885	136,598
Operating expenses	(62,788)	(77,285)
Financial income	130	240
Financial expenses	(62)	(47)
Dividends received	(24,705)	(14,331)
	2012	2013
OUTSTANDING BALANCES WITH JOINT VENTURES AND ASSOCIATES		
Current trade and other receivables	4,752	2,558
Current trade and other payables	10,341	32,222

A capital increase has been done in the joint venture Ordeg (South Korea) for EUR 7.5 million.

(EUR)

2012	2013
530,045	535,952
220,000	230,833
200,500	191,000
101,288	106,507
8,257	7,612
	220,000 200,500 101,288 8,257

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)

	2012	2013
EXECUTIVE COMMITTEE		
Salaries and other benefits	8,922,465	7,504,592
Short-term employee benefits	5,040,724	3,291,796
Post-employment benefits	908,448	1,576,470
Other long-term benefits	864,521	877,512
Share-based payments	2,108,772	1,758,814

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 2013 for services rendered in 2012. The remuneration Report shows the value of the shares granted in 2014 for services rendered in the reporting year i.e. 2013.

The figures related to the undeferred part of the variable cash remuneration linked to the individual performance for the reference year 2013, 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 2013 are included in the other long-term benefits. The amounts to be paid in 2015 and 2016 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 5 February 2014, Umicore announced that a gross dividend of EUR 1.00 per share would be proposed to the Annual Shareholders Meeting, corresponding to a total dividend payment of EUR 110,381 thousand of which EUR 0.50 per share were already paid out as interim dividend in September 2013.

## F39 Earnings per share

**EARNINGS PER SHARE** (EUR) 2012 2013 **Excluding discontinued operations** EPS - basic 2.09 1.61 EPS - diluted 2.08 1.60 **Including discontinued operations** 2.09 EPS - basic 1.61 EPS - diluted 2.08 1.60 Recurring EPS 2.47 1.96

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	2012	2013
Net consolidated profit, Group share	F9	233,444	179,029
Without discontinued operations		233,444	179,029
With discontinued operations		233,444	179,029
Recurring net consolidated profit, Group share	F9	275,235	218,042

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

### **DENOMINATOR ELEMENTS**

20	12	2013
Total shares issued as at 31 December 120,000,	000	120,000,000
of which treasury shares 8,113,	488	10,228,661
of which shares outstanding 111,886,	512	109,771,339
Weighted average number of outstanding shares 111,593,	474	111,257,259
Potential dilution due to stock option plans 752,	607	475,906
Adjusted weighted average number of outstanding shares 112,346,	081	111,733,165

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 2013, no new shares were created as a result of the exercise of stock options with linked subscriptions rights. During the year Umicore used 296,912 of its treasury shares in the context of the exercise of stock options and 25,300 for shares granted. In the course of 2013, Umicore bought back 2,437,385 of its own shares. On 31 December 2013, Umicore owned 10,228,661 of its own shares representing 8.52% of the total number of shares issued as at that date.

## F40 IFRS developments

The following new standards, amendments to standards and interpretations are mandatory for the first time for the financial year beginning 1 January 2013:

- Amendments to IAS 1 'Presentation of financial statements', effective for annual periods beginning on or after 1 July 2012. The amendment changes the disclosure of items presented in other comprehensive income (OCI) in the statement of comprehensive income.
- IAS 19 Revised 'Employee benefits', effective for annual periods beginning on or after 1 January 2013. Through these amendments significant changes are made to the recognition and measurement of defined benefit pension expense and termination benefits, and to the disclosures for all employee benefits.
- Amendments to IFRS 7 'Disclosures Offsetting financial assets and financial liabilities', effective for annual periods beginning on or after 1 January 2013. The amendment reflects the joint requirements with the FASB to enhance current offsetting disclosures. The new disclosures are intended to facilitate comparison between those entities that prepare IFRS financial statements to those that prepare financial statements in accordance with US GAAP.
- IFRS 13 'Fair value measurement', effective for annual periods beginning on or after 1 January 2013. The new standard explains how to measure fair value for financial reporting.

The following new standards and amendments to standards have been issued and have been endorsed by the European Union, but are not mandatory for the first time for the financial year beginning 1 January 2013:

- IAS 27 Revised 'Separate financial statements', effective for annual periods beginning on or after 1 January 2014. The revised standard includes the provisions on separate financial statements that are left after the control provisions of IAS 27 have been included in the new IFRS 10.
- IAS 28 Revised 'Investments in associates and joint ventures', effective for annual periods beginning on or after 1 January 2014. The revised standard now includes the requirements for joint ventures, as well as associates, to be equity accounted following the issue of IFRS 11.
- IFRS 10 'Consolidated financial statements', effective for annual periods beginning on or after 1 January 2014. The new standard builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included within the consolidated financial statements.
- IFRS 11 'Joint arrangements', effective for annual periods beginning on or after 1 January 2014. The new standard focuses on the rights and obligations rather than the legal form. Proportional consolidation is no longer allowed.
- IFRS 12 'Disclosure of interests in other entities', effective for annual periods beginning on or after 1 January 2014. This is a new standard on disclosure requirements for all forms of interests in other entities.
- Amendments to IFRS 10 'Consolidated financial statements', IFRS 11 'Joint arrangements' and IFRS 12 'Disclosure of interests in other entities'. The amendments clarify the transition guidance in IFRS 10, and provide additional transition relief (for example by limiting the requirement to provide adjusted comparative information to only the preceding comparative period or, for disclosures related to unconsolidated structured entities, removing the requirement to present comparative information for periods before IFRS 12 is first applied). These amendments will be effective for annual periods beginning on or after 1 January 2014 which is aligned with the effective date of IFRS 10, 11 and 12.
- Amendments to IAS 32 'Offsetting financial assets and financial liabilities', effective for annual periods beginning on or after 1 January 2014. The amendments clarify some of the requirements for offsetting financial assets and financial liabilities on the statement of financial position.
- Amendments to IAS 36 'Impairment of assets', effective for periods beginning on or after 1 January 2014. The IASB made consequential amendments to the disclosure requirements of IAS 36 when it issued IFRS 13. One of the amendments was drafted more widely than intended. This limited scope amendment corrects this and introduces additional disclosures about fair value measurements when there has been impairment or a reversal of impairment.
- Amendments to IAS 39 'Financial instruments: Recognition and measurement', effective for annual periods beginning on or after 1 January 2014. These amendments provide relief from discontinuing hedge accounting when novation of a derivative designated as a hedging instrument meets certain criteria. Similar relief will be included in IFRS 9 'Financial instruments'.
- Amendments to IFRS 10 'Consolidated financial statements', IFRS 12 'Disclosure of interests in other entities' and IAS 27 'Separate financial statements' for investment entities. Effective for annual periods beginning on or after 1 January 2014. The amendments give an exemption to entities that meet an 'investment entity' definition and which display certain characteristics to account for its subsidiaries at fair value.

The following new standard, amendments to standards and interpretation have been issued, but are not mandatory for the first time for the financial year beginning 1 January 2013 and have not been endorsed by the European Union:

- IFRS 9 'Financial instruments', effective for periods beginning on or after 1 January 2015. The standard addresses the classification, measurement and derecognition of financial assets and financial liabilities.
- IFRIC 21 'Levies', effective for periods beginning on or after 1 January 2014. IFRIC 21 sets out the accounting for a liability to pay a levy if that liability is within the scope of IAS 37. It also addresses the accounting for a liability to pay a levy whose timing and amount is certain.

- · 'Annual improvements' with minor amendments to eight standards and is effective for periods beginning on or after 1 July 2014. The amendments relate to IFRS 2 'Definition of vesting condition, IFRS 3 'Accounting for contingent consideration in a business combination', IFRS 8 'Aggregation of operating segments', 'IFRS 8 'Reconciliation of the total of the reportable segments' assets to the entity's assets', IFRS 13 'Short-term receivables and payables', IAS 7 'Interest paid that is capitalised', IAS 16/IAS 38 'Revaluation method proportionate restatement of accumulated depreciation', IAS 24 'Key management personnel'.
- · 'Annual improvements' in response to four issues addressed during the 2011-2013 cycle and is effective for periods beginning on or after 1 July 2014. The amendments include IFRS 1 'Meaning of effective IFRSs', IFRS 3 'Scope exceptions for joint ventures', IFRS 13 'Scope of paragraph 52 (portfolio exception)' and IAS 40 'Clarifying the interrelationship of IFRS 3 Business Combinations and IAS 40 Investment Property when classifying property as investment property or owner-occupied property'.
- Amendment to IAS 19 'Defined benefit plans', effective for periods beginning on or after 1 July 2014. The amendment seeks clarification for the accounting of employee contributions set out in the formal terms of a defined benefit plan.
- Amendment to IFRS 9 'financial instruments' on general hedge accounting, effective date to be determined. 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.

The management is currently assessing the impact of these new standards and amendments on the Group's operations.

## F41 Auditors' remuneration

The world-wide remuneration for the statutory auditor and its affiliated companies totalled EUR 2.4 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 0.5 million for non-statutory audit services including audit-related and other attestation services (EUR 0.1 million) and other non-audit related services (EUR 0.3 million).

# 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.

These documents may also be obtained on request from:

### 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) 31/12/2011 31/12/2013 **SUMMARIZED BALANCE SHEET AT 31 DECEMBER** 1. ASSETS **Fixed assets** 3,730,403 3,787,362 3,793,411 Formation expenses II. 84,042 Intangible assets 72,409 79,483 III. Tangible assets 302.174 317,085 347,946 3,390,794 IV. Financial assets 3,355,820 3,361,423 **Current assets** 957,086 923,789 1,342,747 Amounts receivable after more than one year 783 773 566,508 394,039 Stocks and contracts in progress 465,396 VII. Amounts receivable within one year 508,993 259,283 220,493 VIII. Investments 259,349 219,265 299,215 IX. Cash at bank and in hand 546 1.348 1,131 Deferred charges and accrued income 6,553 11,011 8,134 Total assets 5,073,150 4,744,448 4,717,197 2. LIABILITIES AND SHAREHOLDERS' EQUITY Capital and reserves 1,415,121 1,449,756 1,426,759 500,000 Capital 500,000 11. Share premium account 6,610 6,610 6,610 Ш Revaluation surplus 91 91 497,318 IV. 446,295 419,413 Reserves V. Result carried forward 298,383 368,999 Vbis. Result for the period 156,153 146,723 87,990 Investments grants 7,589 7,920 7,248 Provisions and deferred taxation VII.A. Provisions for liabilities and charges 96,967 105,843 86,205 Creditors 3,571,824 3,197,725 3,184,594 Amounts payable after more than one year VIII. 1,664,000 2,082,000 1,528,750 1,464,758 1,053,194 Amounts payable within one year 1,963,445 Accrued charges and deferred income 79,629 68,967 49,400 Total liabilities and shareholders' equity 5,073,150 4,744,448 4,717,197

(EUR thousand)

				(
		31/12/2011	31/12/2012	31/12/2013
INCOME ST	ATEMENT			
l.	Operating income	4,579,923	4,473,315	3,157,820
II.	Operating charges	(4,421,003)	(4,313,756)	(3,047,883)
III.	Operating result	158,920	159,559	109,937
IV.	Financial income	115,398	78,640	103,076
V.	Financial charges	(102,423)	(94,046)	(93,979)
VI.	Result on ordinary activities before taxes	171,896	144,152	119,034
VII.	Extraordinary income	3,212	52,678	911
VIII.	Extraordinary charges	(20,150)	(50,129)	(27,631)
IX.	Result for the period before taxes	154,958	146,701	92,314
Χ.	Income taxes	1,195	22 ///	4,324
XI.	Result for the period	156,153	146,723	87,990
XII.	Transfer from/to untaxed reserve			
XIII.	Result for the period available	156,153	146,723	87,990

				(
		2011	2012	2013
AP	PROPRIATION ACCOUNT			
Α.	Profit (loss) to be appropriated	653,656	600,668	603,778
	1. Profit (loss) for the financial year	156,153	146,723	87,990
	2. Profit (loss) carried forward	497,503	453,945	515,788
C.	Appropriation to equity	(87,322)	26,882	(77,905)
	2. To the legal reserve	0	0 /////	0
	3. To the reserve for own shares	(87,322)	26,882	(77,905)
	4. To the capital	0	0 /////	0
D.	Profit (loss) to be carried forward (1)	453,945	515,788	415,493
	2. Profit (loss) to be carried forward	453,945	515,788	415,493
F.	Profit to be distributed (1)	(112,389)	(111,762)	(110,381)
	1. Dividends			
	- ordinary shares	(112,389)	(111,762)	(110,381)

<sup>(1)</sup> 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 29 April 2014; the gross dividend of EUR 1.00 will not change.

				(EUR thousand)	Number of shares
STA	TEME	ENT OF CA	APITAL	· ·	
A.	Sha	are capit	al		
	1.	Issued	capital		
		At the	end of the preceding financial year	500,000	120,000,000
		At the	end of the financial year	500,000	120,000,000
	2.	Structui	re of the capital		
		2.1.	Categories of shares		
			Ordinary shares	500,000	120,000,000
		2.2.	Registered shares or bearer shares		
			Registered		6,544,778
			Bearer		113,455,222
E.	Au	ıthorized	unissued capital	50,000	

	% capital	Number of shares	Notification date
G. Shareholder base (1)			
Vanguard Precious Metals and Mining Fund	3.02	3,620,000	07/12/2012
Franklin Templeton Institutional LLC	3.08	3,691,759	31/10/2013
Family Trust Desmarais, Albert Frère & Groupe Bruxelles Lambert S.A.	5.01	6,017,276	28/11/2013
BlackRock Inc.	4.96	5,957,971	14/12/2012
Others	75.40	90,484,333	31/12/2013
Own shares held by Umicore	8.52	10,228,661	31/12/2013
	100.00	120,000,000	
of which free float	100.00	120,000,000	

<sup>(1)</sup> At 31 December 2013, 3,378,088 options on Umicore shares are still to be exercized. This amount includes 3,378,088 acquisition rights of existing shares held by Umicore.

# Management responsibility statement

We hereby certify that, to the best of our knowledge, the Consolidated Financial Statements as of 31 December 2013, 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.

27 March 2014,

Marc Grynberg **Chief Executive Officer** 

# **Environmental statements**

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# Environmental key figures

	unit	notes	2009	2010	2011	2012	2013
Metal emission to water (load)	kg	E2	5,915	6,495	5,782	5,701	5,560
Metal emission to water (impact units)		E2	442,575	389,676	306,627	245,935	313,883
COD (chemical oxygen demand)	kg	E2	235,266	258,309	252,681	278,131	297,490
Metal emission to air (load)	kg	E2	11,950	13,582	13,867	16,614	12,533
Metal emission to air (impact units)		E2	214,650	184,066	129,900	135,059	140,349
SO <sub>x</sub> emissions	tonne	E2	408	468	511	487	702
NO <sub>x</sub> emissions	tonne	E2	369	426	412	399	462
CO <sub>2</sub> e emissions (scope1+2)	tonne	E3	529,628	543,807	695,733	701,898	693,839
Energy consumption	terajoules	E4	7,284	7,597	7,807	7,315	7,557
Water consumption	thousand m³	E5	4,670	4,617	4,567	4,310	4,337
Product SD analysis	Ν°	E6	-	-	3	7 ///	6
Total waste produced	tonne	E7	54,300	63,993	71,426	69,702	68,520
Hazardous waste	tonne	E7	34,555	38,533	43,588	47,789	45,668
of which recycled	0/0	E7	6.5	7.7	9.8	7.5	16.9
Non hazardous waste	tonne	E7	19,745	25,460	27,837	21,914	22,852
of which recycled	0/0	E7	62.3	59.8	64.9	54.7	60.1
Measurements exceeding limit	N°	E9	618	878	798	926	775
Compliance excess rate	0/0	E9	1.1	1.4	1.4	1.1	0.8
Environmental complaints	N°		-	-	-	24	25
Sites ISO 14001 certified	0/0	E9	86	86	92	93	97
Sites having a potential environmental impact on an area of high biodiversity value	N°	E10	8	8	11	15	16

# 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 2012, data of one site is no longer reported because of cessation of industrial activities at the site (Perafita, Portugal, Building Products). Two sites were added to the reporting scope: Himeji (Japan, Automotive Catalyst) and the testing centre in Suzhou (China, Automotive Catalyst). This brings the total number of reporting sites to 66 compared to 65 in 2012. 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 2013: Hanau (Germany, Catalysis, Performance Materials & Recycling), Olen (Belgium, Energy Materials & Group R&D), Hoboken (Belgium, Recycling & Group P&T), Changsha (China, Performance Materials) and Cheonan, (South Korea, Energy Materials) report their full-year figures. A sensitivity analysis undertaken for the 2013 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 5% 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 2012 annual report has been restated in the 2013 report (the majority of these restatements were less than 2%, with the exception of water consumption which was restated by some 8%).

More details on Umicore's management approach are available on www.umicore.com/sustainability/environment/

## 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 is 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).

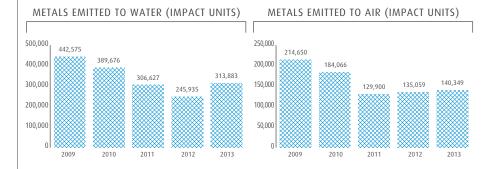
The impact factors for water emissions are based upon scientific data generated ('predicted no effect concentrations' or PNECs) for the REACH regulation. An impact factor of 1 was attributed to the antimony PNEC of 113  $\mu$ g/l. The impact factors for emissions to air are based upon the occupational 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  $\mu$ g/m<sup>3</sup>. Subsequently, an impact factor for all relevant metals was calculated based upon these references.

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

SO, and NO, emissions are expressed in tonnes/year.

### Group data

	unit	2009	2010	2011	2012	2013
Metal emission to water (load)	kg	5,915	6,495	5,782	5,701	5,560
Metal emission to air (load)	kg	11,950	13,582	13,867	16,614	12,533



### Metal emissions to water

The total metals emissions to water for the Group decreased slightly from 5,701 kg in 2012 to 5,560 kg in 2013, a reduction of 2.5%. However, the total metal impact rose from 245,935 impact units in 2012 to 313,883 impact units in 2013 due to an increased emission of metals with a high impact factor (arsenic, thallium and silver). This corresponds to a 28% increase in impact compared to 2012. Compared to the reference year 2009, we still see a reduction of 29% which remains well beyond the 20% reduction target. Further details per business group are given in the paragraphs below.

While the business group Catalysis was able to reduce its metal emissions for both load and impact, these are not a material component of the overall Group emissions to water (less than 0.5%).

The metal emissions to water from the business group Energy Materials were reduced by some 22% from 778 kg in 2012 to 603 kg in 2013. This was mainly due to lower reported nickel emissions at the site in Olen (Belgium). However, the total impact of metal emissions to water from the business group rose by 9% compared to 2012, mainly due to increased silver emissions at the Olen site.

The business group Performance Materials reported an increase of its metal emissions to water from 1,445 kg in 2012 to 1,682 kg in 2013, an increase of 16%. The impact of metal emissions to water also increased by 16% compared to 2012. The increase for both the load and impact is mainly due to increased zinc emissions to water at the site in Viviez (France, Building Products).

Metal emissions to water in the Recycling business group were down by some 6%, from 3,446 kg in 2012 to 3,253 kg in 2013. This was mainly caused by lower selenium emissions. However, the corresponding impact was significantly increased by 35% compared to 2012, mainly due to an increase of thallium, a metal with a high impact factor in the effluent. A significant reduction of both the total metal load and impact to water is expected as soon as the new waste water treatement in Hoboken (Belgium, Recycling) becomes operational during the first semester of 2014.

#### Metal emissions to air

The total load of metal emissions to air for the Group decreased from 16,614 kg in 2012 to 12,533 kg in 2013, a reduction of 25%. However, the corresponding impact increased slightly from 135,059 in 2012 to 140,349 impact units in 2013, an increase of 4%. The increase in impact is mainly due to higher metal emissions with a high impact factor (cadmium and cobalt). Despite this, compared to the reference year 2009 the impact of metal to air emissions are down by 35% which remains well below the 20% reduction target. Further details per business group are given in the sections below.

Neither the metal load nor impact of the business group Catalysis are material components of the overall Group emissions to air (less than 0.5%).

The business group Energy Materials reported a total load of metal emissions to air of 708 kg, a slight increase of 2% compared to 2012. The corresponding metal impact increased by 17% from 31,572 impact units in 2012 to 36,932 impact units in 2013. This increase is mainly due to higher cobalt emissions at the site in Cheonan (South Korea, Rechargeable Battery Materials) caused by an increase in production volume.

The reported total load of metal emissions to air in the business group Performance Materials decreased from 13,468 kg in 2012 to 9,594 kg in 2013, a decrease of about 30%. This decrease is mainly due to lower zinc emissions to air in the Zinc Chemicals business unit: Angleur (Belgium), Eijsden (Netherlands), Changsha (China) where we benefited from initiatives to improve bag filter management across all sites. The site in Sancoale (India) reported an increase in zinc emissions to air because of an increased production volume. In contrast, the business group showed a 39% increase of its impact levels compared to 2012 due to an increased emission of cadmium at the site in Sancoale (Sancoale, Zinc Chemicals).

The business group Recycling saw a small decrease of metal emissions from 2,443 kg in 2012 to 2,224 kg in 2013 mainly caused by lower zinc emissions in Bangkok (Thailand, Jewellery & Industrial Materials) and lower emissions of arsenic and antimony to air in Hoboken (Belgium, Precious Metals Refining). The latter is also the key reason why the impact of metal emissions to air decreased by 7% compared to 2012.

## 2013 business group data - other emissions

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Umicore Group
COD (chemical oxygen demand)	kg	20,490	67,262	7,894	201,843	297,490
SO <sub>x</sub> emissions	tonne	17	4	118	564	702
NO <sub>v</sub> emissions	tonne	156	99	60	147	462

The total 'chemical oxygen demand' (COD) emissions were 297,490 kg, a slight increase compared to 278,131 kg in 2012. Total  $SO_x$  emissions were 702 tonnes compared to 487 tonnes in 2012.  $NO_x$  emissions were 462 tonnes in 2013 compared to 399 tonnes in 2012.

## 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.

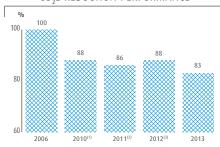
The main pillar of this policy is our group objective to achieve by 2015 a 20% reduction in our  $CO_2$  equivalent emissions compared to the reference year 2006 and using the same scope of activities as 2006 (see detailed explanation below).

Umicore also reports its absolute CO<sub>2</sub>e emissions (ie as per the scope outlined in E1).

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

	unit	baseline 2006 in relation to 2013	2010	2011	2012	2013
	UIIIL	relation to 2015	2010	2011	2012	2013
CO <sub>2</sub> e emissions (scope1+2, objective)	tonne	778,718	597,226 <sup>(1)</sup>	635,136 <sup>(2)</sup>	655,246 <sup>(3)</sup>	643,800

### CO, E REDUCTION PERFORMANCE



Definition of the CO<sub>2</sub>e emissions in the context of the CO<sub>2</sub> reduction objective:

The  $\mathrm{CO}_2$  equivalent ( $\mathrm{CO}_2$ e) emissions are defined as the scope 1 emissions of  $\mathrm{CO}_2$ e including the major process emissions (but limited to  $\mathrm{CO}_2$ ,  $\mathrm{CH}_4$  and  $\mathrm{N}_2\mathrm{O}$ ) and scope 2 emissions of  $\mathrm{CO}_2$ . 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:  $\mathrm{CO}_2\mathrm{e}$  (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. 2013) by the 2006 CO<sub>2</sub>e 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 2010 was 677,542, leading to a reduction of 12% in 2010 in comparison to 2006.
- (2) Baseline 2006 in relation to 2011 was 740,886, leading to a reduction of 14% in 2011 in comparison to 2006.
- (3) Baseline 2006 in relation to 2012 was 745,935, leading to a reduction of 12% in 2012 in comparison to 2006.

### Example:

In 2006 site A produced 1,000 tonnes of metal X and emitted 100 tonnes of  $CO_2e = intensity$  of 0.1 tonnes  $CO_3e \neq tonne$  tonnes of metal X.

In 2013 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 2013 is: activity level of 2013 (1,100 tonnes) x 2006 intensity of 0.1 tonne CO<sub>2</sub>e / tonne = 110 tonnes CO<sub>2</sub>e.

Therefore the measured 100 tonnes emitted in 2013 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  $CO_2$ e emissions that would have been expected with the activity volumes of the reporting year (i.e. 2013) but with the  $CO_2$ e 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, e emissions objective

 $CO_2$ e emissions in 2013 using the objective scope were 643,800 tonnes.  $CO_2$ e emissions in 2006 using the objective scope were 673,801 tonnes. For the purpose of assessing progress on our objective this  $CO_2$ e emission level normalized for 2013 activity was 778,718 tonnes. By the end of 2013 we have therefore achieved a 17% reduction compared to our 2006 benchmark year. This means that for equivalent production levels we emitted 17% less in carbon equivalent. This compares to a reduction of 12% that we had achieved by the end of 2012. The progress in 2013 compared to 2012 is mainly due to reduced process emissions of  $CO_2$  and  $CO_2$  in the Hoboken operations. This reduction can be attributed to the mix of raw materials used in 2013 as well as process improvements made at the blast furnace. Other factors such as the  $CO_2$  footprint of electricity showed a mixed picture in 2013 with lower emissions in some sites compensated by higher emissions in other sites. Excluding the activity adjustment that we make as part of our objective we have recorded a 4% reduction in absolute emissions since 2006, compared to a reduction of 3% registered at the end of 2012.

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  $CO_2$  emissions, to identify further energy efficiency improvements and  $CO_2$  reduction opportunities. In this process; over 100 energy efficiency projects have been identified that have 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. While these projects will not make a significant contribution to the overall Group  $CO_2$  reduction target, they bring efficiency gains and cost savings at site and business unit level.

Next to the process improvements introduced at sites which have the highest levels of absolute emissions, our ability to reach the 20% reduction objective by 2015 depends on the evolution of both the raw materials mix and the electricity mix as Europe moves away from lower-carbon sources.

## Absolute CO<sub>2</sub>e emissions Group data

	unit	2009	2010	2011	2012	2013
Absolute CO <sub>2</sub> e emissions (scope1+2)	tonne	529,628	543,262	695,733	701,898	693,839

## 2013 business group data

				Performance		
	unit	Catalysis	Materials	Materials	Recycling	Umicore Group
Absolute CO <sub>2</sub> e emissions (scope1+2)	tonne	86,928	176,723	162,018	267,678	693,839

Definition of Absolute CO<sub>2</sub>e emissions (scope1+2) in the context of GHG reporting scope 1+2:

The absolute  $CO_2$ e emission volumes are communicated at Group and at business group level. The  $CO_2$ e 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).  $CO_2$ e includes the greenhouse gases  $CO_2$ ,  $CO_2$ 0 and  $CO_3$ 1 and  $CO_3$ 2 for scope 1 and major process emissions. Other greenhouse gases are not relevant in Umicore's operations. The scope 2 emissions take only  $CO_3$ 2 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&NoSe archContextKey=true).

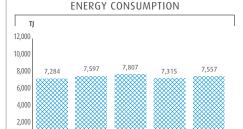
By way of context, in 2011 Umicore adopted a strict implementation of the GHG protocol's revised version of 2004. Process emissions have been reported from 2011 and the average grid  $CO_2$  factor for electricity is used as the standard emission factor in cases where up to 2010 "green electricity" had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

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 more important projects are still in the engineering phase and will only have an effect once fully implemented.

## 2013 business group data

			Energy	Performance		Umicore
	unit	Catalysis	Materials	Materials	Recycling	Group
Energy consumption	terajoules	792	2,244	1,874	2,637	7,557

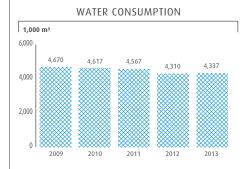
The most important energy efficiency projects have been carried out in the Hoboken and Olen sites under the Flemish Energy Efficiency Benchmarking Covenant to which these sites signed up at the end of 2003. The type of residues processed by the Recycling business group also played a role; higher volumes of 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 2,629 terajoules. Direct energy consumption by primary energy source (fuel, gas oil, natural gas, LPG, coal and cokes) was 4,928 terajoules.

Compared to 2012 energy consumption in Catalysis was up 9%, in Energy Materials up 2%, in Performance Materials up 2% and in Recycling up 4%. This moderate increase in energy consumption reflects the overall increased activity levels.

## 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 4,310 thousand m<sup>3</sup> in 2012 to 4,337 thousand m<sup>3</sup> in 2013. For the different business groups no significant trends could be noted.

### 2013 business group data

			Energy	Performance		Umicore
	unit	Catalysis	Materials	Materials	Recycling	Group
Water consumption	thousand m³	316	1,751	697	1,574	4,337

## **E6 Product and materials**



## **Group data**

	unit	2009	2010	2011	2012	2013
Product SD analysis	N°	-	-	3	7 ///	6

Over the last four 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 is to test six products or services each year between 2012 and 2015 with each business unit submitting two cases to the study. This will provide us with a sustainability profile for a representative portion of our activities.

In 2013 six further cases were assessed in the business units Cobalt & Specialty Materials, Precious Metals Management, Electroplating, Platinum Engineered Materials, Zinc Chemicals and Jewellery & Industrial Metals. The sixteen cases assessed in the period 2011-2013 comprise products and services deployed in niche markets, 'flagship' products and services as well as a product under development. By the end of 2013 the number of products and services screened using the tool amounted to the equivalent of just above 10% of Umicore's revenues.

By June 2013, the second REACH registration deadline, Umicore has submitted another 21 registrations for 17 different substances to the European Chemicals Agency (ECHA). The files were either jointly prepared with other companies acting in consortia or by Umicore alone. About a third of all dossiers is being updated in 2013 with additional information or newly available data. All costs associated with REACH compliance, including the cost of registration, are covered under normal operating expenditures.

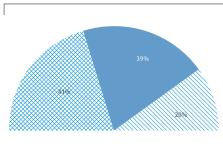
Umicore monitors closely all changes in interpretation as well as guidance documents which might affect its REACH implementation strategy. Umicore is actively involved in industry association working groups to make sure a consistent approach is followed and that the metal specifics are understood by 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.

By the end of 2013, a total of 4,250 products had been integrated in IPDS, Umicore's Integrated Product Data System, resulting in some 300,000 Safety Data Sheets, covering 119 countries and 44 languages.

### Resource efficiency







Primary raw materials: are those materials that have a direct relation to their first lifetime hereby excluding streams of by-products.

Secondary raw materials: are by-products of primary materials streams.

End-of-life materials: are those materials that have ended at least a first life cycle and will be re-processed through recycling leading to a 2nd, 3rd...life of the substance.

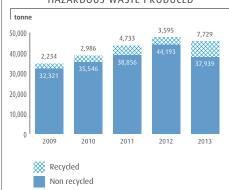
Incoming materials: are regarded as primary by default if their origin is unknown. The collected data are expressed in terms of total tonnage of incoming material.

In 2013, 41% of Umicore's incoming materials were of primary origin. 59% of the materials were from recycling or secondary origin. These levels are comparable to 2012.

### E7 Waste

### **Group data**

## HAZARDOUS WASTE PRODUCED



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 2013, a total of 68,520 tonnes of waste were generated compared to 69,702 tonnes in 2012, a decrease of 1.7%.

The total volume of hazardous waste was reduced from 47,789 tonnes in 2012 to 45,668 tonnes in 2013, a decrease of 4.4%. The recycling rate of hazardous waste increased from 7.5% in 2012 to 16.9% in 2013. This increase is largely due to a notable increase in total hazardous waste in Eijsden (Netherlands), most of which was recovered.

The total volume of non-hazardous waste increased from 21,914 tonnes in 2012 to 22,852 tonnes in 2013. A total of 60% of non-hazardous waste was recycled in 2013 compared to 55% in 2012.

## 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Umicore Group
Total waste produced	tonne	2,964	24,595	14,218	26,742	68,520
Hazardous waste	tonne	1,531	14,769	8,946	20,422	45,668
of which recycled	0/0	9.43	1.34	67.76	6.49	16.92
Non hazardous waste	tonne	1,433	9,826	5,272	6,321	22,852
of which recycled	0/0	48.22	32.47	74.52	93.87	60.14

## **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 2013.

### **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 € 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.

2013 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 2013. Together with the authorities (FANC and NIRAS/ ONDRAF) Umicore has elaborated a vision document that would lay down the foundations for the development, approval and implementation of a general Waste Management Plan for radium-bearing waste stored at the plant.

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 is expected to be completed in 2014 with excavated material being stored safely at the Nyrstar plant in Balen.

### 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 2013, 600,000 m³ of contaminated soil and waste had been removed and treated. The project was visited by several groups in 2013 including local residents and the media. In 2013 Umicore worked with the public authorities (national and municipal) to consolidate a public road to give access to the project.

### Germany

Umicore and its predecessor companies can look back on a long history of mining in Germany. While the last active mine near Cologne ceased its operations in 1978, a number of underground mining concessions remain in Umicore's possession to this day. Since 2009 they have been managed by Umicore Mining Heritage GmbH & Co. KG. All information regarding locations of old shafts and tunnels, have now been georeferenced and put in a GIS-system.

### USA

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

After the closing down of the Maxton plant in North-Carolina, soil and groundwater contamination was identified. Umicore entered into a voluntary remediation program with the authorities.

Also in Arab, Alabama, Umicore entered into a voluntary remediation program after soil impact was detected.

### 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 measures to stop the spreading of this contamination to the neighbouring areas. To that purpose, an hydraulic barrier to capture the contaminated groundwater at the property boundaries has been installed and put into operation in 2011. In 2012, it was decided to tackle the most contaminated parts of the groundwater on-site, in order to speed up the remediation. To that end, pilot tests have been performed and full scale operations have been initiated. Further, Umicore has assessed the impact the historical contamination had to areas outside the operational plant and has agreed in 2013 with the local authorities to a remediation program.

## 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.

### 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Umicore Group
Measurements exceeding limit	Ν°	129	5	612	29	775
Compliance excess rate	0/0	0.38	0.04	1.44	0.25	0.78

In 2013, some 100,000 environmental measurements were carried out at all of Umicore's industrial sites compared to some 83,000 the year before. This increase is mainly due to an improved calculation method for the number of measurements at the site in Larvik (Norway, Performance Materials). These measurements are undertaken to verify environmental compliance with applicable regulatory requirements, permits and/or local standards. They typically include waste water sampling and ambient air monitoring as well as environmental noise measurements. The number of measurements that did not meet the regulatory or permit requirements was down to 0.78% compared to 1.1% in 2012. No significant trends could be observed for the different business groups.

Three out of the 64 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 61 remaining sites, 59 sites have put in place an environmental management system certified against ISO 14001. The remaining 2 sites are planning the implementation of an environmental management system in 2014. 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. These were mainly related to noise and odour. Twenty-two of the complaint files have already been closed.

## **E10 Biodiversity**

## **Group data**

	unit	2009	2010	2011	2012	2013
Sites having a potential environmental impact on an area of high biodiversity value	N°	9	9	11	15	16

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).

Sixteen 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.

# Social statements

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# Social key figures

	unit	notes	2009	2010	2011	2012	2013
Total workforce (incl. associates)	N°	S2	13,728	14,386	14,572	14,438	14,057
Temporary contracts	% of total workforce (fully consolidated)	S2	3.83	4.01	4.77	4.21	3.42
Average training hours per employee	hours/employee	S3	44.05	43.30	51.94	50.72	45.18
Employees having a yearly appraisal	% of total workforce (fully consolidated)	S3	-	-	87.16	91.80	95.65
Voluntary leavers - ratio	% of total workforce (fully consolidated)	S4	2.59	3.78	3.84	3.20	3.33
Employees working in a site that has received an external recognition as preferred employer	% of total workforce (fully consolidated)	S4	-	-	52.64	68.31	72.63
Total donations	€ thousand	S5	1,106.48	1,009.38	1,751.02	1,759.18	1,612.80
Sites having an external communications plan	% sites	S5	-	-	59.70	62.69	63.24
Employees represented by union or Collective Labour Agreement (CLA)	% of total workforce (fully consolidated)	S6	71.15	68.92	69.81	70.80	71.33
Sickness rate	0/0	S9	2.64	2.86	3.03	2.69	2.76
Exposure ratio 'all biomarkers aggregated' (1)	0/0	S10	-	-	5.2	4.3	2.6
Number of occupational linked diseases	N°	S10	-	-	22	20	14
People with platinum sensitisation	N°	S10	-	-	4	6	4
Fatal accidents	N°	S11	0	0	0	0	0
Lost Time Accidents (LTA)	N°	S11	48	56	60	49	35
Lost Time Accidents (LTA) for sub-contractors	N°	S11	26	20	17	33	22/
LTA frequency rate	LTA/million hours worked	S11	3.1	3.5	3.6	2.9	2.1
LTA severity rate	lost days/thousand hours worked	S11	0.08	0.13	0.11	0.11	0.10

<sup>(1)</sup> 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, 102 consolidated sites are included in the social reporting. The following new sites are added: for Catalysis, in Suzhou (China) and Bad Säckingen (Germany), for Energy Materials, a second site started operations in Cheonan (South Korea). Performance Materials opened a representative office in Istanbul (Turkey) and closed its operations in Melbourne, Australia, towards the end of 2013 (social indicators for the Melbourne site are still included in the 2013 reporting.

34 small sites (sites with less than 20 employees) were exempt from reporting on the gender and employee category split concerning training hours and also on the status of the improvement plan for being considered a preferred employer or on the objective regarding stakeholder engagement.

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. Categories of indicators that are specifically relevant to Vision 2015 are marked with a "Vision 2015" next to the title for easy reference. More information on the progress towards these objectives can be found in the management review between 8 and 25 and in the business group review between pages 26 and 41 of this report. Additional information on Umicore's social management approach can be found on our website:

www.umicore.com/sustainability/social/

## **S2** Workforce

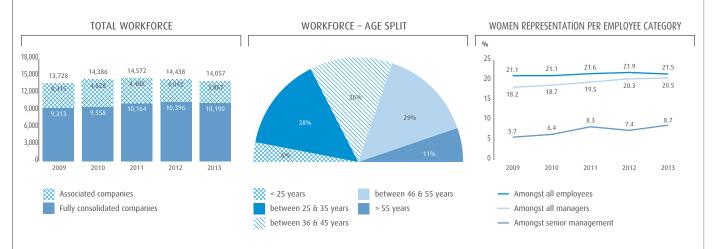
## **Group data**

	unit	2009	2010	2011	2012	2013
Total workforce (incl. associates)	N°	13,728	14,386	14,572	14,438	14,057
Workforce from fully consolidated companies	N°	9,313	9,558	10,164	10,396	10,190
Workforce from associated companies	Ν°	4,415	4,828	4,408	4,042	3,867
Employees men	Ν°	7,353	7,546	7,972	8,121	7,996
Employees women	Ν°	1,960	2,012	2,192	2,275	2,194
Employees full time	Ν°	-	-	9,494	9,699	9,491
Employees part time	N°	-	-	670	697	699
Employees <25 years	N°	-	-	718	675	603
Employees between 25 and 35 years	N°	-	-	2,796	2,968	2,909
Employees between 36 and 45 years	N°	-	-	2,749	2,753	2,646
Employees between 46 and 55 years	N°	-	-	2,951	2,982	2,937
Employees > 55 years	Ν°	-	-	950	1,018	1,095
Temporary contracts	% of workforce (fully consolidated)	3.83	4.01	4.77	4.21	3.42

Total workforce: Number of employees on Umicore payroll at the end of the period in fully consolidated companies and associated 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.



## 2013 regional data

	unit	Europe	North America	South America	Asia- Pacific	Africa	Umicore Group
Total workforce	N°	7,730	864	1,139	3,026	1,298	14,057
Workforce from fully consolidated companies	No	6,631	839	702	1,698	320	10,190
Workforce from associated companies	N°	1,099	25	437	1,328	978	3,867
Employees men	No	5,320	656	529	1,292	199	7,996
Employees women	N°	1,311	183	173	406	121	2,194
Employees full time	N°	5,960	828	702	1,681	320	9,491
Employees part time	N°	671	11	0	17	0	699
Temporary contracts	% of workforce (fully consolidated)	4.71	1.31	0.14	1.24	1.25	3.42

## 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Corporate	Umicore
				Materials		Corporate	dioup
Total workforce	N°	2,340	2,884	5,331	2,345	1,157	14,057
Workforce from fully consolidated companies	N°	2,173	1,828	2,737	2,345	1,107	10,190
Workforce from associated companies	N°	167	1,056	2,594	0	50	3,867
Employees men	N°	1,682	1,531	2,165	1,949	669	7,996
Employees women	N°	491	297	572	396	438	2,194
Employees full time	N°	2,065	1,707	2,579	2,165	975	9,491
Employees part time	N°	108	121	158	180	132	699
Temporary contracts	% of workforce (fully consolidated)	5.89	1.15	3.84	3.75	0.63	3.42

### Total workforce

The total workforce decreased by 381 employees to a total of 14,057. For the fully consolidated companies, the workforce decreased by 206 people to 10,190. The decrease in headcount was spread over all business groups and Corporate services, with the exception of the business group Catalysis which employed 53 more people at the end of 2013. Amongst the associated companies there was a decrease of 175 employees as a result of production realignments.

## Gender split

The percentage of women was 21.5% 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, Northern Europe and North America 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 decreased to 3.42% in 2013. Especially during the second half of the year a number of temporary contracts were not renewed.

### 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% in 2007 to 21% in 2013. Also the percentage of women in senior management increased from 7.4% in 2012 to 8.7% in 2013.

## General overview of sites and employees

	Productions sites	Other sites	Employees
Europe			
Austria	1		140
Belgium	8 (1)	3 (2)	3,111 (79)
Czech Republic		1 /////	2
Denmark		1 //////	13
France	5	2	785
Germany	8 (2)	3 (2)	2,506 (395)
Hungary		1 //////	4
Ireland	1 (1)		240 (240)
Italy	1	3 (1)	85 (21)
Liechtenstein	1		86
Luxemburg		1 //////	10
Netherlands	2		124
Norway	1		54
Poland		2 (1)	12 (2)
Portugal		1 //////	10
Russia		1 //////	Ī
Slovakia	1		42
Spain		2 (1)	15 (3)
Sweden	2 (1)	1 //////	201 (159)
Switzerland	1	2	30
Turkey		1 //////	1
United Kingdom	1	7 (4)	248 (196)
Asia-Pacific			
Australia	1	2	18
China	11 (4)	6 (1)	1,994 (1,151)
India	1	2	82
Japan	4	3 (1)	176 (10)
Malaysia	1		63
Philippines	1		82
South Korea	3 (1)	1 //////	474 (167)
Taiwan	1	1 //////	23
Thailand	1	1 /////	114
United Arab Emirates		1 (1)	4 (4)
North America			
Canada	3		234
United States	8	4 (2)	630 (25)
South America			
Argentina	1		44
Brazil	3	1 (1)	659 (1)
Peru	1 (1)		436 (436)
Africa			
South Africa	3 (1)	1 //////	1,298 (978)
Total	76 (12)	55 (17)	14,057 (3,867)

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

## S3 People development



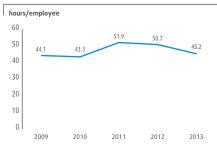
## **Group data**

	unit	2009	2010	2011	2012	2013
Sites having a development plan in place for people development	% of total sites	-	-	59.60	70.10	73.53
Employees having a yearly appraisal	% of workforce (fully consolidated)	-	-	87.16	91.80	95.65
Average number of training hours per employee	hours/employee	44.05	43.30	51.94	50.72	45.18
Average number of training hours per employee – Men	hours/employee	-	-	53.20	51.75	45.82
Average number of training hours per employee – Women	hours/employee	-	-	47.37	46.04	42.26
Average number of training hours per employee – Managers	hours/employee	-	-	61.84	64.15	41.41
Average number of training hours per employee – Other employee categories	hours/employee	-	-	48.55	45.57	44.82

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

## AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE CATEGORY AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE - GENDER SPLIT







## 2013 regional data

			North	South	Asia-		Umicore
	unit	Europe	America	America	Pacific	Africa	Group
Average number of training hours per employee	hours/employee	41.16	41.27	71.01	54.39	33.36	45.18
Employees having a yearly appraisal	% of workforce (fully consolidated)	98.56	94.68	100.00	81.42	100.00	95.65

## 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Corporate	Umicore Group
Average number of training hours per employee	hours/employee	60.51	47.26	34.11	48.53	32.98	45.18
Employees having a yearly appraisal	% of workforce (fully consolidated)	98.04	90.81	95.95	95.65	98.22	95.65

## Training hours

In 2013, the average training hours per employee reached 45.18 hours. This was below the levels of 2012, but in line with average training hours in 2009 and 2010. In the years 2011 and 2012 the average went up, influenced by a higher number of newly hired employees and the start-up of several new operations.

Data shows that managers receive a slightly lower number of training hours (41.41 hours) compared to other employees (44.82 hours). In 2013 a global Learning Management System was launched for all managers worldwide and other employees in Belgium and Germany. Further roll-out was prepared to gradually reach all employees.

## Yearly appraisal

In 2013 nearly 96% of all employees from fully consolidated companies have an appraisal interview to discuss their development at least once a year. Although this percentage is high, further efforts are being implemented to reach 100% coverage by 2015.

## **S4** Preferred employer

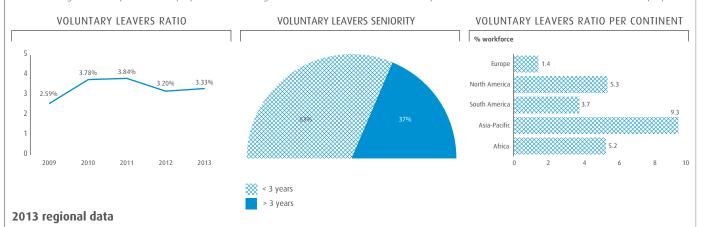
## **Group data**



	unit	2009	2010	2011	2012	2013
Sites having a plan regarding preferred employer in place	% of total sites	-	-	70.15	76.12	82.35
Voluntary leavers ratio	% of workforce (fully consolidated)	2.59	3.78	3.84	3.20	3.33
Voluntary leavers men	N°	-	-	287	251	253
Voluntary leavers women	N°	-	-	96	81	89
Voluntary leavers seniority < 3 year	N°	-	-	222	214	217
Voluntary leavers seniority > 3 year	N°	-	-	161	118	125
Employees working in a site that has received an external recognition as preferred employer	% of workforce (fully consolidated)	-	-	52.64	68.31	72.63
External recognitions related to preferred employer	N°	-	-	18	31	///////33/

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.



	unit	Europe	North America	South America	Asia- Pacific	Africa	Umicore Group
Voluntary leavers ratio	% of workforce (fully consolidated)	1.44	5.34	3.66	9.26	5.19	3.33

## 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Corporate	Umicore Group
Voluntary leavers ratio	% of workforce (fully consolidated)	3.99	5.84	2.32	1.65	4.10	3,33

### **Voluntary leavers**

In the last five years, the percentage of voluntary leavers has fluctuated between 2.6 and 3.8. The 3.3% for 2013 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 (9.3%) and Europe (1.4%) 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

26% of the voluntary leavers are women, which is a somewhat higher figure than the 21% presence of women in the workforce of fully consolidated companies. 63% of the voluntary leavers in 2013 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 and the main sites in Germany obtained national recognition as a Top Employer. In 2013, the sites in Brazil received the recognition of Top Employer. Many of Umicore's sites are small to medium sized operations and their recognition efforts are channeled 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 72.63% of the employees work at a site that received formal external recognition in 2013.

### People survey results

A global People Survey is carried out on a regular basis. The previous survey was held in 2010 with the next survey scheduled for 2014. In 2013 all major sites continued to implement the action plans related to the feedback of the 2010 survey, with the goal of further improving the engagement and well-being of the employees.

## S5 Accountability to local community

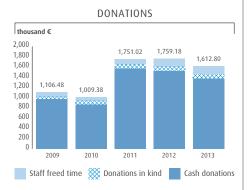


### **Group data**

	unit	2009	2010	2011	2012	2013
Sites having a plan regarding accountability to local community	% of total sites	-	-	57.58	60.82	65.69
Total donations	€ thousand	1,106.48	1,009.38	1,751.02	1,759.18	1,612.80
Cash donations	€ thousand	966.61	865.34	1,568.80	1,514.60	1,373.82
Donations in kind	€ thousand	89.10	73.59	104.97	159.98	152.27
Staff freed time	€ thousand	50.78	70.46	77.24	84.60	86.71
Sites having an external communication plan in place	% of total sites	-	-	59.70	62.69	63.24

Donations: 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 have been subdivided into cash donations, donations in kind and staff time. Group level donations are co-ordinated by a Donations Committee reporting to the CEO.



## 2013 regional data

	unit	Europe	North America	South America	Asia-Pacific	Africa Umicore Group
Total donations	€ thousand	1,355.61	93.71	69.42	74.39	19.67 1,612.80

## 2013 business group data

			Energy	Performance			
	unit	Catalysis	Materials	Materials	Recycling	Corporate	Umicore Group
Total donations	€ thousand	190.39	132.04	163.61	558.80	567.96	1,612.80

### **Donations**

In 2013, Umicore contributed a total of EUR 1,613 thousand in donations. For the business units the total amount of EUR 1,045 thousand is in line with the guidance of approximately one third of one percent of the unit's average annual recurring consolidated EBIT for the past three years. Additional group level donations were made for an amount of EUR 568 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 supervised by the Donations Committee have a global reach. The main areas for Group level donations in 2013 included support for two major UNICEF educational projects in Haiti and in India, disaster relief for the Philippines, three projects co-ordinated by Entrepreneurs for Entrepreneurs and support for student sustainable mobility projects.

### **External communication**

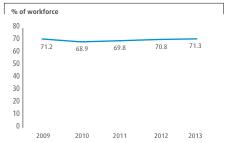
63.24% of the sites have an external communication plan in place to ensure a suitable level of engagement with their local community. Depending on the size of the operation and its link to the local community these communication plans include: newsletters, public hearings, meetings with local authorities, plant visits for the local community and press releases provided to local media.

## **S6** Employee relations

## **Group data**

	unit	2009	2010	2011	2012	2013
Employees represented by union or	% of workforce	71.15	68.92	69.81	70.80	71.33
Collective Labour Agreement (CLA)	(fully consolidated)				/////	

### EMPLOYEES REPRESENTED BY UNION OR CLA



## 2013 regional data

	unit	Europe		South America	Asia- Pacific	Africa	Umicore Group
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce (fully consolidated)	87.95	8.82	94.16	30.15	59.38	71.33

## 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Corporate	Umicore Group
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce (fully consolidated)	62.95	51.48	76.21	89.64	69.74	71.33

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

In total, 71.3% 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 renewed in 2011 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 2013 a total of 21 cases were reported, involving a total of 28 employees. The type of action taken varies from a warning letter to dismissal.

## **S8 Sustainable procurement**

## 2013 business group data



						Indirect
			ocurement	procurement		
	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Corporate <sup>(2)</sup>
Suppliers <sup>(1)</sup> that have agreed on the Sustainable Procurement Charter	% suppliers	88	84	86	84	84

(1) From those suppliers to whom Umicore has sent the Sustainable Procurement Charter (only to key suppliers of each business unit)

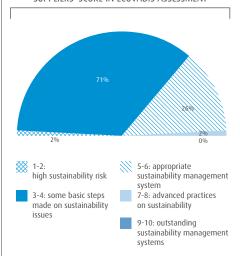
(2) Corporate includes Procurement & Transportation department and UMS Taiwan

### Sustainable Procurement Charter

In the course of 2013, our regional procurement centres 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). Several business units also defined their key suppliers and asked the selected suppliers to acknowledge the principles of the Sustainable Procurement Charter ('the charter').

The companies selected by the regional procurement centres included many suppliers of goods and services and some suppliers of raw materials (eg metals). In total, 671 suppliers have now been selected. By the end of 2013, 84% of these 671 suppliers had formally acknowledged their adherence to the terms of the charter. The business units selected 396 suppliers, of which 86% had formally acknowledged their adherence to the terms of the charter by the end of 2013. The supplier acknowledgement rate in the business units that sent the request for adherence to the charter is now about the same as that of the regional procurement centres suppliers. The total spend with suppliers who adhered to the charter in 2013 is some € 800 million euros.

### SUPPLIERS' SCORE IN ECOVADIS ASSESSMENT



### **Assessment of suppliers**

Umicore asked Ecovadis to assess the sustainability performance of 272 of the 1,067 suppliers highlighted above. The selection of those suppliers was made based on a risk assessment carried out by Ecovadis in relation to critically dependency, duration of relationship 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, fair business practices and supply chain. The scores ranged from 1 to 10 with 1 representing a high risk regarding sustainability issues.

### Average score of assessed suppliers by topic - 2013 Group data

	Group
Environmental	4.4
Labor practices	4.0
Fair business practices	3.7/
Suppliers	3.4
Overall	4.0

Of the 272 selected suppliers, 57 suppliers did not respond to the questionnaire. Of the 215 received score cards, 152 companies had a score of 3 or 4, meaning that they have taken basic steps on sustainability issues. Only 4 companies had a score equal to or below 2, representing a high risk regarding sustainability issues. 59 companies scored, overall, higher than 4. This means that they either have "an appropriate sustainability management system" (55 companies) or show "advanced practices on sustainability" (4 companies). As to the average score in each category, the suppliers attained the highest average score in environment, while scoring the lowest in promoting sustainability in their own supply chain.

The Umicore Group has been assessed by Ecovadis and was scored 6.7, which classifies the company in the advanced category 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".

### Alternative methods of assessing supplier sustainability

Certain business units have adopted supplementary or alternative measures to checking the sustainability of their suppliers:

Umicore Precious Metals Refining Hoboken screens its suppliers using the Business Partner Screening process (BPS). Most of UPMR's 'suppliers' are, in fact, their end customers with UPMR providing a recycling service. The BPS is deemed to have a better scope to deal with this dual status of customer-supplier and covers aspects such as business ethics and security in more detail.

The Cobalt & Specialty Materials business unit has further refined its sustainable supply chain approach and engaged a third party auditor. The framework includes several tools to screen these suppliers on a regular basis and to mitigate the risks or uncertainties related to their supply chain practices.

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### Improvement plans

In the course of 2013 several business units launched a program with low-scoring suppliers to develop an action plan for improvement. With regard to the regional procurement centres, a number of improvement plans were put into action with suppliers to the Belgian, Brazilian and French regional procurement centres.

### Sustainable development and procurement training

In order to increase awareness of sustainable procurement within the company a web-based learning tool was made available on the newly-deployed My Campus platform in 2013. In 2013, 337 people participated in this e-learning module. In Brazil, a specific training programme was deployed over 11 on-site learning sessions. This resulted in 122 employees being trained on sustainable procurement.

### 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 aim to comply with the above rulings. In this regard, our Precious Metals Refining operations in Hoboken and Guarulhos successfully passed an independent audit and were certified as "conflict-free smelters" in 2013 for their operations of the previous year by the London Bullion Market Association (LBMA). The Jewellery & Industrial Metals operations in Pforzheim and Bangkok were certified as part of the Responsible Jewellery Council's (RJC) Chain of Custody programme for three years. Similar independent audits are either underway or scheduled at two other Umicore operations.

In addition to existing policies and charters such as the Umicore Code of Conduct, Human Rights Policy and Sustainable Procurement Charter, in 2013 Umicore published a specific policy regarding "Responsible global supply chain of minerals from conflict-affected and high-risk areas".

### www.umicore.com/sustainability/stakeholders/ConflictMineralsPolicy/conflictMineralsPolicy.htm

More information on Umicore's relationship with suppliers can be found in the Stakeholder Engagement section in the Corporate governance statements on page 169 and in the management review between pages 8 and 25.

## S9 Employees' health

## **Group data**

	unit	2009	2010	2011	2012	2013
Sickness rate	0/0	2.64	2.86	3.03	2.69	2.76
				SICKNESS RATE		
Sickness rate: Total number of working and days lost due to maternity leave.				3.5	2.020/	I
per year.				3.0 2.64%	2.86% 3.03% 2.69%	6 2.76%
Long-term illness is defined as startir	ng after three months o	of uninterrupted illne	SS.	2.5		
				2.0		
				1.5		
				1.0		

## 2013 regional data

			North	South			
	unit	Europe	America	America	Asia-Pacific	Africa	Umicore Group
Sickness rate	0/0	3.45	1.74	1.63	0.97	3.04	2.76

0.5

### Sickness rate

In the last five years the sickness rate has fluctuated between 2.64% and 3.03%. In 2013 the global sickness rate was 2.76%. We observe regional variations with a higher sickness rate in Europe and a lower sickness rate in Asia-Pacific.

# **\$10 Occupational health**



All consolidated manufacturing sites where Umicore has operational control are included in the scope of the occupational health reporting. Compared to 2012, data of one sites is not reported anymore because of cessation of industrial activities at the site (Perafita, Portugal, Performance Materials). Two sites were added to the reporting scope: Himeji (Japan, Catalysis) and Suzhou (China, Catalysis - test center). This brings the total number of reporting sites to 64.

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 **www.umicore.com/sustainability/social/** 

#### Group data

	unit	2009	2010	2011	2012	2013
Exposure ratio 'all biomarkers aggregated' (1)	0/0	-	-	5.2	4.3	2.6
Exposure ratio lead (blood) (2)	%	-	-	1.4	0.5	0.9
Exposure ratio arsenic (urine) (2)	%	-	-	2.2	1.4	1.6
Exposure ratio cobalt (urine) (2)	%	-	-	22.1	14.8	10.7
Exposure ratio cadmium (blood) (2)	0/0	-	-	0.8	1.7	0.6
Exposure ratio cadmium (urine) (2)	0/0	-	-	1.5	3.0	1.0
Exposure ratio nickel (urine) (2)	0/0	-	-	6	7.1	1.1
People with platinum salts sensitisation	N°	-	-	4	6	4
People with noise induced hearing loss	N°	-	-	9	4	3
People with contact dermatitis	N°	-	-	2	2	2
People with occupational asthma other than Pt-salts	N°	-	-	0	1 ////	0
People with muskulo-skeletal ailments	N°	-	-	11	7 ////	5

- (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 2013, a total of 4,461 biological samples were taken from employees with an occupational exposure to at least one of the metals mentioned above (platinum salts excluded). 113 readings showed a result in excess of the internal target value. This brings the total excess rate to 2.6%, down from 4.3% in 2012. 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 Materials, Performance Materials and Recycling. In total, 13 of the 1,416 occupationally exposed employees exceeded the target value of  $30\mu g/100ml$  bringing the excess rate for lead exposure to 0.9%, similar to the 0.5% excess rate in 2012.

The majority of the excess readings were at the business group Recycling and were due to higher body burdens as a result of past exposures in the Hoboken site (Belgium, Recycling).

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 Materials, Performance Materials and Recycling. In total, 864 employees are occupationally exposed to arsenic of which 14 had an excess reading during 2013. This brings the excess rate for arsenic to 1.6%, slightly up compared to the 1.4% excess rate in 2012.

#### Cobalt

In total, 698 employees are occupationally exposed to cobalt, mainly in the business group Energy Materials. The number of employees exceeding the target value was 75 bringing the excess rate to 10.7%, significantly lower compared to the excess rate of 14.8% in 2012.

All the excess readings were recorded in the business units Cobalt & Specialty Materials and Rechargeable Battery Materials. These business units have for many years been developing an occupational health approach for cobalt including biological monitoring. In 2011 the biological target value was lowered from 30 to 15 microgramme per gramme of creatinine in line with the most recent data in the scientific literature on cobalt toxicity and occupational exposure. The business units are implementing action plans to achieve a significant reduction of the cobalt exposure at the workplace e.g. newly-installed cobalt furnaces at the site in Olen (Belgium, Energy Materials) have been designed to be operated without personal protective equipment.

#### Cadmium

Occupational exposure to cadmium represents a potential health risk in the business groups Performance Materials and Recycling.

Cadmium in urine is an excellent biomarker for lifetime exposure while cadmium in blood correlates to more recent occupational exposure.

In 2013, a total of 686 employees had an occupational exposure to cadmium.

7 employees recorded a cadmium in urine reading in excess of the target value resulting in an excess rate of 1.0% compared to 3.0% in 2012.

In the business group Performance Materials, 3 employees exceeded the internal target value for cadmium in urine. All these employees were employed in the business unit Technical Materials.

In the business group Recycling, 4 of the exposed employees exceeded the target values for cadmium in urine of which 3 in Hoboken (Belgium) while 1 excess reading was recorded in Amsterdam (Netherlands).

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

Four employees exceeded the target value for cadmium in blood resulting in an excess rate of 0.6%. Cadmium in blood is a good biomarker of more recent cadmium exposure.

#### Nickel

The business groups Energy Materials, Performance Materials and Recycling have occupational exposure to nickel. In 2013 a total of 797 employees were exposed to nickel, of which 9 exceeded the internal target level compared to 54 last year. This resulted in an excess rate of 1.1% compared to 7.1% in 2012.

This significant improvement is mainly due to the implementation of an ambitious action plan at the site in Subic (Philippines, Energy Materials) focusing on improved engineering controls at the nickel carbonate and oxide installations while continuing campaigns on personal workplace hygiene.

#### Platinum salts

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

In 2013, 4 employees were newly diagnosed with a platinum salt sensitisation down from 6 in 2012. Two of these employees were employed in the business group Catalysis, the two others in the business group Recycling. These employees were moved to a workplace with no platinum salt exposure or provided with workplace equipment that offers an even higher level of protection. All workers exposed to platinum salts are monitored through an occupational health programme and regularly screened on allergy.

#### Other occupational diseases

In 2013, a total of 3 employees were diagnosed with industrial noise-induced hearing loss. Two employees developed a contact dermatitis and 5 developed a musculo-skeletal disorder due to their occupation. All people concerned are followed by an occupational health physician and measures were taken to prevent further deterioration of their conditions.



In total, 78 consolidated sites are included in the occupational safety reporting. Compared to 2012, 1 site (Foshan, China, Recycling) is not included anymore in the safety reporting because of stopped activities while 5 new site were added (Bad Sackingen (Germany, Catalysis); Tokoname (Japan, Catalysis); Himeji (Japan, Catalysis); Cheonan (South Korea, Energy Materials); Raleigh (USA, administrative office). Additional information on Umicore's management approach on safety can be found on the website <a href="https://www.umicore.com/sustainability/social/">www.umicore.com/sustainability/social/</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	2009	2010	2011	2012	2013
Fatal accidents	Ν°	0	0	0	0	0
Fatal accidents sub-contractors	Ν°	0	0	0	0	0
Lost Time Accidents (LTA)	Ν°	48	56	60	49	35
Lost Time Accidents (LTA) sub-contractors	Ν°	26	20	17	33	22
LTA frequency rate		3.1	3.5	3.6	2.9	2.1
LTA frequency rate sub-contractors		11.08	7.91	5.50	10.06	5.76
Calendar days lost	N°	1,280	2,090	1,771	1,897	1,726
LTA severity rate		0.08	0.13	0.11	0.11	0.10
Recordable Injuries (RI)	Ν°	352	210	221	160	146
Recordable Injuries frequency rate		22.9	13.3	13.3	9.3	8.7
Ratio N° of sites with no LTA / total N° of sites reporting	0/0	-	-	77	85	79
Sites OHSAS 18001 certified	0/0	14.5	28.0	30.0	32.0	32.8

#### Definition

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

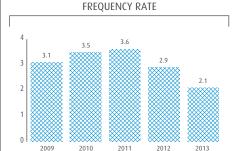
Sub-contractor: a person not belonging to Umicore's total workforce, providing services to Umicore in one of its premises under terms specified in a contract. Fatal accident: a work-related accident with fatal outcome.

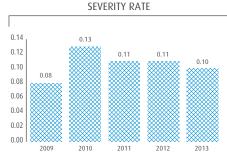
Lost time accident: a work-related injury resulting in more than one shift being lost from work.

Recordable injury: a work- related injury resulting in more than one first aid treatment or in a modified working program 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.





#### 2013 regional data

	unit	Europe	North America	South America	Asia-Pacific	Africa	Umicore Group
Lost Time Accidents (LTA)	N°	26	4	1	4	0	35/

#### 2013 business group data

	unit	Catalysis	Energy Materials	Performance Materials	Recycling	Corporate	Umicore Group
Fatal accidents	N°	0	0	0	0	0	0
Lost Time Accidents (LTA)	N°	4	6	9	15	1	35
LTA frequency rate	per million hours worked	1.1	2.0	2.0	4.2	0.5	2,1
Calendar days lost	N°	416	365	408	532	5	1,726
LTA severity rate	per thousand hours worked	0.11	0.12	0.09	0.15	0	0.10

In 2013, a total number of 35 lost time accidents were recorded compared to 49 in 2012. This resulted in a frequency rate of 2.1, down from 2.9 in 2012. In total, 1,726 calendar days were lost due to these lost time accidents. This resulted in a severity rate 0.10, compared to 0.11 in 2012,

The number of reported recordable injuries was 146 compared to 160 in 2012. The recordable injury frequency rate for 2013 was 8.7.

A total of 22 lost time accidents were registered for sub-contractors compared to 33 in 2012. This corresponded to a frequency rate of 5.8 compared to 10.0 in 2012.

During 2013, 79% of the reporting sites operated without a lost time accident compared to 77% in 2012. Twenty one of the 64 manufacturing sites are certified using the occupational health and safety management system OHSAS 18001 compared to 20 in 2012.

Twenty-six lost time accidents, or 74% of the total number of lost time accidents, occurred in Europe. Of these 20 occured in Belgian and 5 in German sites. The Americas accounted for 5 accidents while 4 accidents happened in the Asia-Pacific region.

In January 2014 an accident at the Olen plant in Belgium cost the lives of two Umicore employees. Preliminary findings indicated that the accident was due to an unexpected accumulation of hydrogen in the storage tank on which the two employees were carrying out maintenance work. A preliminary report was submitted to the Health and Safety Inspectorate and a process was launched to share the learning from the accident through the Group.

In 2013, the business group Catalysis recorded 4 lost time accidents of which 3 were in the Automotive Catalyst business unit. The total number of days lost was 416. This resulted in a frequency rate of 1.1 and a severity rate of 0.11. The business group continues to implement 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 certified using the OHSAS 18001 management system. At year-end, the site in South Plainfield (USA, Recycling and Catalysis) 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 Americana (Brazil, Catalysis), Karlskoga (Sweden, Catalysis), Auburn Hills (USA, Catalysis), Tsukuba (Japan, Catalysis) and Suzhou (China, Catalysis) had 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.

The business group Energy Materials recorded 6 lost time accidents compared to 9 in 2012. In total, 365 calendar days were lost. This resulted in a frequency rate of 2.0 and a severity rate of 0.12. Three accidents happened at the business unit Cobalt & Specialty Materials, Electro-Optic Materials recorded 2 accidents while Rechargeable Battery Materials had 1 accident. The business unit Thin Film Products operated without a lost time accident. The business unit Rechargeable Battery Materials has implemented a safety leadership program based on a behaviour observation and intervention technique as part of its safety ACCE program (Awareness, Competence, Compliance, Excellence) Three sites have been recognized for their excellent and sustained safety performance, recording at least 5 years with no lost time accident or recordable injury to Umicore staff and no lost-time accident to contractors on site: Dundee (UK, Energy Materials), Fort Saskatchewan (Canada, Energy Materials) and Hsinchu Hsien (Taiwan, Energy Materials).

The business group Performance Materials recorded 9 lost time accidents compared to 10 in 2012. A total of 408 calendar days were lost. The frequency rate was 2.0 and the severity rate 0.09. Six of the 9 lost time accidents occurred in the Zinc Chemicals business unit. The Technical Materials business unit recorded 2 lost time accidents. The Building Products business unit recorded 1 accident while the Platinum Engineered Materials and the Electroplating

business units operated without any accident. The business unit Zinc Chemicals continued to implement and improve its 'safety for a better life' programme with active involvement of all staff under the guidance of a business unit safety committee. Key elements of the programme include safety observation tours involving the business unit leadership team, training and the implementation of standards on key safety aspects. Progress is monitored through a set of leading and lagging safety indicators. The other business units are further deploying in-house safety programmes that are tailor made to their needs and priorities. Innovative elements of these programmes include business unit safety calendars and videos, safety gallery meetings and workshops. At the end of 2013 the site in Vicenza (Italy, Performance Materials) 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 site in Vilvoorde (Belgium, Building Products) 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.

The business group Recycling had 15 lost time accidents, down from 23 in 2012. A total of 532 calendar days were lost. This represents a frequency rate of 4.2 and a severity rate of 0.15. The business unit Precious Metal Refining, with 13 lost time accidents, is further implementing the SafeStart® programme in all of its departments. The site in Hoboken (Belgium, Recycling) is also deploying a SafeMap® leadership training for all its managers and supervisors. The business unit Jewellery & Industrial Materials finalised the implementation of a safety programme focusing on four axes: roles and responsibilities, standards and training, safety dialogues, incident investigation.

An additional lost time accident occurred in Corporate at one of the Umicore Marketing Services offices.

# 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, the policies and procedures of the Umicore Group. The Charter is available on the Umicore website (**www.umicore.com/qovernance**) 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. This Statement provides information on governance issues which relate primarily to the financial year 2013.

## **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 enduser 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 centre is 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 2013 there were 120,000,000 Umicore shares in issue. The history of the Umicore capital representation can be found at www.umicore.com/investorrelations. The identity of shareholders having declared a participation of 3% or more as of 31 December 2013 can be found in the chapter "parent company separate summarized financial statements" (p. 115-117).

Also on 31 December 2013 Umicore owned 10,228,661 of its own shares representing 8.52% 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 296,912 own shares were used in the context of the exercise of employee stock options and 25,300 shares were used for a share grant, of which 2,900 to the Board members, 19,000 to the Executive Committee members and 3,400 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 2013 Umicore paid a gross dividend of € 1.00 per share relating to the financial year 2012. This equalled the gross dividend in respect of the financial year 2011.

In August 2013 the Board, in line with the Umicore dividend policy, decided to pay an interim dividend, equal to 50% of the total dividend declared for the previous financial year. As a result a gross interim dividend of  $\in$  0.50 per share was paid as from 5 September 2013. On 5 February 2014 the Board decided to propose to shareholders a total gross dividend of  $\in$  1.00 per share relating to financial year 2013. If the appropriation of profit proposed to shareholders is approved, the gross pay out of the dividend in May 2014 shall therefore amount to  $\in$  0.50 per share (i.e. the total dividend less the interim payment).

The System Paying Agent designated for the payment of the 2013 dividend is:

KBC Bank Havenlaan / Avenue du Port 2 1080 Brussels

#### 3.3 Shareholders' meetings 2013

According to Umicore's articles of association, the annual shareholders' meeting takes place on the last Tuesday of April at 5 p.m.

The annual shareholders' meeting of 2013 took place on 30 April 2013. At this meeting 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 2012 mandates. In addition Isabelle Bouillot was reappointed as director for a further three years, and Shohei Naito's mandate as independent director was renewed for one year. The shareholders appointed Frans van Daele as a new, independent director for three years, but he resigned in July 2013 following his appointment as chief of staff of HRH King Philippe. The shareholders also appointed Barbara Kux with effective date 1 January 2014 for a period expiring at the end of the annual shareholders' meeting of 2017. The annual shareholders' meeting furthermore approved the remuneration of the Board for 2013. Details of the fees paid to the directors in 2013 are disclosed in the Remuneration Report.

Finally, an extraordinary shareholders' meeting also held on 30 April 2013 renewed the authorization conferred to the Company and its subsidiaries to acquire, until 30 June 2015, Umicore shares on a regulated market within a limit of 10% of the subscribed capital, at a price per share between  $\in$  4 and  $\in$  75.

#### **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 normally 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 shareholders' 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 2013, the Board of Directors was composed of ten members: nine non-executive directors and one executive director. On the same date four 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. Following the entry into force of the appointment of Barbara Kux as new, independent director on 1 January 2014 (as decided by the shareholders' meeting held on 30 April 2013), the Board of Directors will on that date consist of eleven members, including ten non-executive directors and five independent directors.

Two (i.e. 20%) of the ten Board members in function on 31 December 2013 are women. Following the entry into force of the appointment of Barbara Kux as director on 1 January 2014, this number will increase to three (or 27.27%). Umicore is committed to reach the minimum representation threshold of one-third as imposed by the Belgian Companies Code and the recommendations of the Belgian Corporate Governance Committee well within the imposed time frame, i.e. before 1 January 2017, Both the Nomination and Remuneration Committee and the Board will in this respect seriously take into consideration the gender diversity requirement when examining Board mandate vacancies in the coming years.

The composition of the Board of Directors underwent the following changes in 2013:

- Frans van Daele was appointed as new, independent director for a period of three years as of 30 April 2013, but resigned in July 2013 following his appointment as chief of staff of HRH King Philippe;
- · Barbara Kux was appointed as new, independent director with effective date 1 January 2014 for a period ending at the end of the 2017 annual shareholders' meeting.

#### 4.2 Meetings and topics

The Board of Directors held five regular meetings in 2013. This is a decrease by one compared to the previous year, but can be explained by the postponement of a Board meeting initially scheduled for December 2012 to early January 2014. On one occasion the Board also took decisions by unanimous written approval.

Major matters reviewed by the Board in 2013 included:

- financial performance of the Group;
- approval of the annual and half-year financial statements;
- · adoption of the statutory and consolidated annual accounts including the result allocation and annual dividend proposal, as well as the statutory and consolidated annual reports;
- · approval of the agenda of an ordinary and extraordinary shareholders' meeting and calling of these meetings;
- · Vision 2015 status report;
- · investment projects;
- sustainable development review;
- strategic opportunities and operational challenges;
- · business updates and technology review;
- · mergers & acquisitions projects;
- · EHS, Communications and Human Resources review;
- · annual performance review of the Chief Executive Officer and the other members of the Executive Committee in respect of 2012;
- succession planning at the level of the Board;
- · distribution of an interim dividend;
- · renewal of the statutory auditor's mandate.

The Board also visited the Umicore automotive catalyst facility in Florange (France).

### 4.3 Performance review of the Board and its Committees

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

The last performance review took place in 2013, on the basis of an individual evaluation form. The directors were asked to assess the following items: composition of the Board, selection and appointment of directors, functioning of the Board (agenda, meetings, chairmanship and secretariat), quality of information, culture within the Board, performance of duties by the Board, relations with the Executive Committee, and finally the Audit Committee and the Nomination and Remuneration Committee.

The outcome of the evaluation was first discussed at the Board meeting held in September 2013 and was further discussed in depth during a Board meeting held in February 2014.

#### 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 consists of three non-executive directors, two of them being independent. Isabelle Bouillot, since she was no longer considered an independent director from 30 April 2013 onwards, was replaced by Rudi Thomaes as Committee member with effective date 30 April 2013. All the members of the Audit Committee, have extensive experience in accounting and audit as demonstrated by their curriculum.

The Committee met four times in 2013. Apart from the review of the 2012 full year accounts and those of the first half of 2013, the Committee also reviewed the following matters: the endorsement of the new head of the internal audit department, treasury items, the renewal of the statutory auditor's mandate, metal inventory methodology, the status on the minimum internal control requirements ("MICR"), an overview of the employee benefits liabilities in the Umicore Group and the internal audit activity reports. Furthermore, the Audit Committee conducted a review of the fees paid to the statutory auditor.

#### 4.5 Nomination & Remuneration Committee

The Nomination and Remuneration Committee consists of three members who are all non-executive directors, two of them being independent. It is chaired by the Chairman of the Board. Isabelle Bouillot, since she was no longer considered an independent director from 30 April 2013 onwards, was replaced by Shohei Naito as Committee member with effective date 30 April 2013. Two Nomination and Remuneration Committee meetings were held in 2013. 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 2013.

The Nomination and Remuneration Committee was actively involved in the appointment of Frans van Daele (who resigned in July 2013) and Barbara Kux as new directors, and in the performance review of the Board and its Committees. 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.

On 31 December 2013 the Executive Committee consisted 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 non-executive session (i.e. without the Chief Executive Officer present) to review and discuss the performance of the Chief Executive Officer.

The above performance reviews took place on 6 February 2013.

#### 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 laid down 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 2013, save for the 10,228,661 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 2013.

#### 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 € 50,000,000. Up until 31 December 2013 this authorization had not been used. It will lapse on 9 June 2016.

Following a resolution of the extraordinary shareholders' meeting held on 30 April 2013 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 € 4.00 and € 75.00 and until 30 June 2015 (included). The same authorization was also granted to the Company's subsidiaries. A total of 2,437,385 own shares were purchased by the Company in 2013 in implementation of the above authorization (or of the previous authorization granted on 31 May 2012) during 2013.

#### 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. 163).

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

On 6 February 2013, 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 did not take part in the voting.

The financial consequences of the above decisions are described in the Board's annual report on the statutory accounts in accordance with the Belgian Companies Code.

During 2013, 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 26 April 2011 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 jointly represented by BVBA Marc Daelman, represented by Marc Daelman, and Emmanuèle Attout for the exercise of this mandate.

The Umicore policy detailing the independence criteria for the statutory auditor may be requested from the Company or accessed via **www.umicore.com/governance/**.

#### **G9** Code of Conduct

Umicore operates a Code of Conduct for all 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.

# 2013 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

The remuneration of the non-executive Board members in 2013 was maintained at the same level as in the prior year and comprised the following elements:

- **Chairman**: annual fixed fee: € 40,000 + € 5,000 per meeting attended + 300 Umicore shares.
- **Director**: annual fixed fee: € 20,000 + € 2,500 per meeting attended + 300 Umicore shares.

The remuneration of the Board Committee members was as follows in 2013:

#### **Audit Committee**

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

#### **Nomination and Remuneration Committee**

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

### 2013 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	5/5
	Value of 300 granted shares	11,018	
	Nomination & remuneration Committee		
	Fee per attended meeting	5,000	2/2
	Total remuneration	86,018	
	Benefits in kind company car	7,612	
Marc Grynberg	Board		
(executive director)	No remuneration as a director (see hereafter 2013 CEO remuneration)	- <i>//</i>	5/5

	(in 6)	Meeting attende
Poard	(III €)	attenue
	20,000	
		A
		4,
	11,018	
	///	
	3,000	1
	//	
	51,685	
555.5		
Fixed annual fee	20,000	
Fee per attended meeting	2,500	
Value of 300 granted shares	11,018	
Total remuneration		
Board		
Fixed annual fee	20.000	
Fee per attended meeting		
	11,010	
	10,000	
Timed diffidentee		
	73,518	
	///	
	11,018	
Fixed annual fee	5,000	
Fee per attended meeting	3,000	
Total remuneration	60,518	
Board		
Fixed annual fee	20.000	
Fee per attended meeting		
	11,010	
	3,000	
	40,310	
	20,000	
	43,518	
	20.000	
	11,018	
Nomination & Remuneration Committee		
Fee per attended meeting	3,000	
Audit Committee	· //	
Fixed annual fee	3.333	
Fee per attended meeting	3,000	
Total remuneration	58,851	'/////////////////////////////////////
	Value of 300 granted shares  Total remuneration  Board  Fixed annual fee Fee per attended meeting Value of 300 granted shares  Audit Committee Fixed annual fee Fee per attended meeting Total remuneration  Board  Fixed annual fee Fee per attended meeting Value of 300 granted shares  Audit Committee Fixed annual fee Fee per attended meeting Value of 300 granted shares  Audit Committee Fixed annual fee Fee per attended meeting Total remuneration  Board  Fixed annual fee Fee per attended meeting Value of 300 granted shares  Nomination & Remuneration Committee Fee per attended meeting Total remuneration  Board  Fixed annual fee Fee per attended meeting Value of 300 granted shares  Total remuneration  Board  Fixed annual fee Fee per attended meeting Value of 300 granted shares  Total remuneration  Board  Fixed annual fee Fee per attended meeting Value of 300 granted shares  Nomination & Remuneration Committee Fee per attended meeting Value of 300 granted shares  Nomination & Remuneration Committee Fee per attended meeting Value of 300 granted shares  Nomination & Remuneration Committee Fee per attended meeting Audit Committee Fixed annual fee	Fixed annual fee   Fee per attended meeting   2,500

Name		(in €)	Meetings attended
Frans van Daele	Board		
(independent, non-executive director)	Fixed annual fee	10,833	
Appointed by the AGM of 30 April 2013 - Resigned on 23 July 2013	Fee per attended meeting	2,500	1/1
	Value of 200 granted shares	7,345	
	Total remuneration	20,678	
Klaus Wendel	Board		
(non-executive director)	Fixed annual fee	20,000	
	Fee per attended meeting	2,500	5/5
	Value of 300 granted shares	11,018	
	Total remuneration	43,518	

#### **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 Executive Committee 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 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 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. Umicore benchmarks the total remuneration of 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.

#### CEO's remuneration package

The Nomination & Remuneration Committee of 1 February 2013 reviewed the remuneration package of the CEO based on a comparison with peer companies and BEL 20 companies. Given the challenging economic context and on proposal of the Nomination & Remuneration Committee, the Board of Directors of 6 February 2013 decided to leave the remuneration package of the CEO unchanged for 2013.

#### Executive Committee members' remuneration package

The Nomination & Remuneration Committee of 1 February 2013 reviewed the remuneration package of the Executive Committee members. As it was the case for the remuneration package of the CEO, the Board of Directors of 6 February 2013 followed the proposal of the Nomination & Remuneration Committee and decided to leave the remuneration package of the Executive Committee members unchanged for 2013.

For the reported year the individual data for the CEO related to remuneration components are reported in table on page 160 of this remuneration report. For the other Executive Committee members the data regarding fixed remuneration, variable remuneration, pension and other benefits are provided in aggregate while data related to share based incentives (shares and incentive stock option plans) are provided on an individual basis.

### CEO's compensation & benefits

#### **Fixed remuneration**

The CEO received a fixed gross remuneration of € 660,000 in 2013.

#### Variable cash remuneration scheme and evaluation criteria

As from the reference year 2012 the CEO's annual variable cash remuneration potential amounts to € 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 on the Umicore Group profitability criterion, i.e. the Return on Capital Employed (ROCE), as published in the annual report. 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. The other half is paid after a period of three years using as a reference the three year average ROCE. The ROCE range is set between 7.5% (= payout of 0%) and a maximum of 17.5% (= payout of 100%). When the achieved ROCE percentage falls between any of the above targets, the payout will be pro-rated. The payout percentage will be applied on the relevant annual variable cash remuneration potential i.e. a quarter of the annual variable cash remuneration potential of the reference year for each deferred payout year.

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.

At the beginning of every reference year the individual objectives 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.

In 2014 the CEO will receive a gross cash variable remuneration totaling € 393,350. This total includes an amount of € 175,000 corresponding to the undeferred individual component of his variable cash remuneration in respect of the performance achieved in 2013. The balance corresponds to deferred payments from prior years, calculated as follows. An amount of € 114,400 will be paid out as the second half of the deferred payment of his variable cash remuneration for the reference year 2011 based on the three year average ROCE for the years 2011, 2012 and 2013. The Group ROCE averaged 16.3% over these 3 years, giving rise to a percentage payout of 88% which applies to one quarter of the annual variable cash remuneration potential for the year 2011. An amount of € 103,950 will be paid out as the first half of the deferred payment of his variable cash remuneration for the reference year 2012 based on the two year average ROCE for the years 2012 and 2013. The Group ROCE averaged 15.2% over these two years, giving rise to a percentage payout of 77% which applies to one quarter of the annual variable cash remuneration potential for the year 2012.

#### 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 2014 for services rendered in 2013 was 3,000 with a price at grant of € 31.595 per share and a total value at grant of € 94,785. The grant was decided by the Board of Directors on 5 February 2014. The shares are subject to a three year lock-up and are not subject to forfeiture conditions.

In 2013, 75,000 stock options were granted to the CEO as part of the Umicore Incentive Stock Option Plan 2013, implemented by the Board of Directors on 6 February 2013. These options have a strike price of € 36.375 and had a notional value (calculated on the basis of the Present Economic Value model) at grant of € 436,115. There is no vesting period and the options can be exercised from 1 March 2016 until 10 February 2020. 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 defined benefit plans. Other benefits are representation allowance, benefits in kind (company car), and insurance benefits.

#### Total CEO remuneration for 2013

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

Total remuneration earned by the CEO Marc Grynberg - in €	2012	2013
Status of the CEO	Self-employed	Self-employed
Fixed Remuneration	660,000	660,000
Variable Remuneration		
Current year	150,000	175,000
Deferred from previous year	130,000	103,950
Deferred from year prior to previous year*	125,000	114,400
Total gross cash remuneration	1,065,000	1,053,350
Non-cash elements		
- Notional value of the free shares granted (services rendered in the ref. year)	109,125	94,785
- Notional value at grant of the incentive stock options	551,768	436,115
- Pension		
Defined contribution plan	195,030	201,630
Defined benefits plan (service cost)	52,807	92,290
- Other Benefits : Representation allowance, company car, insurance	47,092	47,519
Total	2,020,822	1,925,689

<sup>\*</sup> On 25 March 2013 Marc Grynberg decided to convert the 2nd half of his deferred variable cash remuneration for the reference year 2010 or € 125,000 into 3,400 Umicore shares based on the closing share price of 25 March 2013 or € 36.185. The delta of the conversion or € 1,971 was paid in cash.

On 10 February 2014 Marc Grynberg decided to convert the 2nd half of his deferred variable cash remuneration for the reference year 2011 or € 114,400 into 3,400 Umicore shares based on the closing share price of 7 February 2014 or € 32.98 The delta of the conversion or € 2,268 was paid in cash.

#### **Executive Committee Members compensation & benefits**

#### **Fixed remuneration**

The fixed remuneration can be different for each Executive Committee member and depends on criteria such as experience. In aggregate in 2013 the Executive Committee (excluding the CEO) received € 2,330,000 in fixed gross remuneration.

#### 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 for the reference year 2013 amounting to  $\epsilon$  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 on the Umicore Group ROCE profitability criterion, i.e. the Return on Capital Employed (ROCE), as published in the annual report. 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 as the reference. The other half is paid after a period of three years based on the three years average ROCE. The ROCE range is set between 7.5% (= payout of 0%) and a maximum of 17.5% (= payout of 100%). When the achieved ROCE percentage falls between any of the above targets, the payout will be pro-rated. The payout will be applied to the relevant annual variable cash remuneration potential i.e. a quarter of the annual variable cash remuneration potential of the reference year for each deferred payout year.

There are no provisions allowing the Company to reclaim any variable remuneration paid to the Executive Committee members.

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.

In 2014 the Executive Committee members will receive an aggregate variable cash remuneration totaling € 630,000 in respect to the undeferred individual component of their 2013 variable cash remuneration.

In addition to the undeferred individual payment, the Executive Committee members will also receive in 2014 the 2nd half of the deferred payment of their variable cash remuneration for the reference year 2011 based on the three year average ROCE for the years 2011, 2012 and 2013. The Group ROCE averaged 16.3% over these 3 years, giving rise to a percentage payout of 88% which applies to one quarter of the annual variable cash remuneration potential for the year 2011, corresponding to  $\in$  70,000 for each member of the Executive Committee having served as Executive VP for the full year 2011, or a pro-rata of that amount in case of an incomplete year of service. The aggregate amount is  $\in$  246,400.

The Executive Committee members will also receive in 2014 the first half of the deferred payment of their variable cash remuneration for the reference year 2012 based on the two year average ROCE for the years 2012 and 2013. The Group ROCE averaged 15.2% over these years, giving rise to a percentage payout of 77% which applies to one quarter of the annual variable cash remuneration potential for the year 2012, corresponding to € 75,000 for each member of the Executive Committee having served as Executive VP for the full year 2012, or a pro-rata of that amount in case of an incomplete year of service. The aggregate amount is € 250,250.

#### 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 the Executive Committee in 2014 for services rendered in 2013 was 18,000 (3,000 per member). The total aggregate value at grant was € 568,710. The price at grant was € 31.595 per share. The grant was decided by the Board of Directors on 5 February 2014. The shares are subject to a three year lock-up and are not subject to forfeiture conditions.

In 2013, 87,500 stock options (17,500 options per member) were granted to the Executive Committee members as part of the Umicore Incentive Stock Option Plan 2013, implemented by the Board of Directors on 6 February 2013. The options have a strike price of  $\in$  36.375 for each Executive Committee members. The total notional value at grant (calculated on the basis of the Present Economic Value model) amounted to  $\in$  508,800. There is no vesting period and the options can be exercised from 1 March 2016 until 10 February 2020.

#### Pension and other benefits

Pensions include both defined contribution plans and the service cost of defined benefit plans. Other benefits include representation allowances, company cars and insurance benefits. In aggregate the pension costs of the Executive Committee members amounted to  $\in$  623,913 in 2013.

#### Total aggregate Executive Committee remuneration for 2013

in 2013 (not including the CEO) - in €	2012	2013
Fixed Remuneration (including termination indemnity)	3,029,251	2,330,000
Variable Remuneration		
Current year	395,000	630,000
Deferred from previous year	350,000	250,250
Deferred from year prior to previous year	315,000	246,400
Total gross cash remuneration	4,089,251	3,456,650
Non-cash elements		
- Notional value of the free shares granted (services rendered in the ref. year)	581,745	568,710
- Notional value at grant of the incentive stock options	772,476	508,800
- Pension		
Defined contribution plan	238,364	209,890
Defined benefits plan (service cost)	269,511	414,023
- Other Benefits : Representation allowances, company car, insurance, benefits linked to expatriation	394,701	361,926
Total	6,346,048	5,519,999

# G14 Share and share option ownership and transactions 2013

Executive Committee share option ownership and transactions 2013

Name	Options at 31 Dec 2012	Options granted in 2013	Number of options exercised	Average exercise price (in €)	Year of grant of options exercised	Number of options forfeited	Options at 31 Dec 2013*
Marc Grynberg	390,000	75,000	0			0	465,000
Stephan Csoma **	21,000	0	5,000	22.30	2010	0	16,000
Denis Goffaux	46,000	17,500	0			0	63,500
Hugo Morel	67,500	17,500	25,000	22.30	2010	0	60,000
Filip Platteeuw **	17,500	17,500	0			0	35,000
Pascal Reymondet	92,500	17,500	15,000	22.30	2010	0	95,000
Marc Van Sande	92,500	17,500	21,162	22.30	2010	0	88,838

<sup>\*</sup> These options can be exercised at strike prices between € 14.44 and € 39.25

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 2013**

Name	Shares owned at 31/12/2012	Shares owned at 31/12/2013
Marc Grynberg	146,000	152,400
Stephan Csoma	0	500
Denis Goffaux	4,500	7,500
Hugo Morel	6,000	9,000
Filip Platteeuw	1,000	1,500
Pascal Reymondet	17,750	20,750
Marc Van Sande	15,000	9,000
Total	199,500	200,650

# Board of Directors share ownership 2013

Name	Shares owned at 31/12/2012	Shares owned at 31/12/2013
Thomas Leysen	626,620	676,920
Isabelle Bouillot	600	900
Uwe-Ernst Bufe	600	900
Arnoud de Pret	5,600	5,900
Ines Kolmsee	505	805
Shohei Naito	600	900
Jonathan Oppenheimer	600	900
Rudi Thomaes	905	1,205
Klaus Wendel	7,725	8,025
Total	643,755	696,455

<sup>\*\*</sup> The number of options at 31 Dec. 2012 were granted in their capacity prior to appointment to the Executive Committee

#### **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 applies for all Executive Committee members with the exception of Denis Goffaux whose employment agreement was signed on 1 July 2010, as well as Stephan Csoma and Filip Platteeuw whose employment agreements were signed on 1 November 2012.

#### Individual arrangements in case of termination of the contract by Umicore

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. It is at the Board of Directors' discretion as to whether the variable cash remuneration would form part of any final indemnity.

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. It is at the Board of Directors' discretion as to whether the variable cash remuneration would form part of any final indemnity.

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

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

# G15 Changes to Remuneration since the end of 2013

#### Non-executive directors' remuneration

In order to determine adequate remuneration levels for its non-executive Directors Umicore conducted in 2013 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 2014 demonstrated that as well as the positioning of the fees of the Chairman of the Board as those of the Board members are situated at the low end of the peer groups.

The Nomination & Remuneration Committee recommended to the Board to increase the number of Umicore shares granted to each non-executive director from 300 to 500, and for the Chairman of the Board from 500 to 1,000. The Board of Directors of 5 February 2014 followed this proposal and decided to submit these changes to the approval of the shareholders during the annual shareholders' meeting to be held on 29 April 2014.

#### CEO's remuneration package

On 4 February 2014 the Nomination & Remuneration Committee reviewed the remuneration package of the CEO 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 5 February 2014 decided to leave the fixed gross remuneration of € 660,000 unchanged in 2014.

### Executive Committee Members' remuneration package

The Nomination & Remuneration Committee of 4 February 2014 reviewed the remuneration package of the Executive Committee members. On proposal of the Nomination & Remuneration Committee and taking into account that no salary increase was granted in 2013, the Board of Directors of 5 February 2014 decided to increase slightly the annual fixed remuneration of the Executive Committee members.

#### Composition of the CEO and Executive Committee Members' variable cash remuneration

The Nomination & Remuneration Committee of 4 February 2014 discussed the structure of the current variable cash remuneration of the CEO and the Executive Committee members.

In this context an analysis will be conducted and a proposal will be submitted to the Nomination & Remuneration Committee in the course of the 1st half-year 2014.

# 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 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" (<a href="https://www.umicore.com/en/aboutUs/umicoreWay">www.umicore.com/en/aboutUs/umicoreWay</a>) 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 covering 165 control activities in 12 processes and 131 Group control entities. Within the MICR framework specific attention is paid to the segregation of duties and the definition of clear roles and responsibilities. A compliance threshold is established for each control activity with the ultimate goal being to achieve the target compliance level in all Umicore entities. The majority of entities made further progress in 2013 with the total average compliance scores improving by 2 percentage points. Priority was given to reach the target control maturity in those processes that are of particular importance to Umicore such as metal hedging and inventory management. MICR compliance is monitored by means of annual self assessments to be signed off by the senior management and their outcome is reported to the Executive Committee and to the Audit Committee of the Board of Directors. The compliance assessments are also reviewed by the Internal Audit department during its missions.

# **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 Vision 2015 targets 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 2013:** Challenging economic conditions persisted in many of Umicore's end markets. Sales and revenues were below those of 2012. The main negative impact from a profitability point of view was the effect of lower metals prices on the earnings of the Recycling business group.

#### 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 2009 Umicore adopted a system to track the quality of its research and development efforts. 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 Fine Particle Technology, Recycling & Extraction Technology, Scientific and Technical Operations Support, Environment Health and Safety and Analytical Competences. 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 2013:** Now that the main technology projects are well established, in 2013 the Executive Committee undertook six dedicated technology reviews compared to 14 reviews in 2012. These review focus on the technology developments that will be key to achieving Vision 2015 growth ambitions and cover both product and process developments in automotive catalysis, fuel cell catalysts, rechargeable battery materials and recycling technologies.

#### 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 2013: Umicore made further progress in 2013 with regards to its efforts to demonstrate 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 2012 Umicore had already taken steps, together with relevant industry associations, to provide assurances to customers about the conflict-free nature of the gold that it recycles or which is used in its products. 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. A similar process and certification was undertaken by the Jewellery & Industrial Metals operations in Pforzheim and Bangkok together with the Responsible Jewelry Council (RJC). For more information see p.23. In 2013 Umicore formally adopted a conflict minerals policy. For general comments on the progress in implementing Umicore's Sustainable Procurement Charter please see page 22 and note \$8.

#### 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 2013:** No specific developments took place with regards to substitution risk during 2013.

#### 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 2013:** By June 2013, the second REACH registration deadline, Umicore had submitted another 21 registrations for 17 different substances to the European Chemicals Agency (ECHA). The files were either jointly prepared with other companies acting in consortia or by Umicore alone. About a third of all dossiers is being updated in 2013 with additional information or newly available data.

#### 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.

#### 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. The largest 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 single 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. This risk is typically not hedged.

#### 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 metals 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 while 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 2013:** No material changes took place with regards to the nature or management of the financial risks faced by Umicore during 2013.

# 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 is 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.

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 four 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 2013 Umicore paid these suppliers some € 8.8 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 (<a href="www.umicore.com/sustainability/sustProcCharter/">www.umicore.com/sustainability/sustProcCharter/</a>). This charter forms the basis for the Vision 2015 objective on sustainable procurement. For information on the progress towards this objective please see page 22-23 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 48% of 2013 revenues being generated outside Europe.

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

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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 and its associates employ some 14,000 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 2013 Umicore paid a total of € 560 million in the form of salaries and other benefits to the employees of its fully consolidated companies. Social security payments totalled € 114 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 both 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. In 2013 Umicore introduced a Group-wide learning management platform called "MyCampus" to support its Vision 2015 objectives of People Development and being considered a Preferred Employer. 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 2013 the company's shareholders were primarily situated in Europe and North America. For the latest information on the shareholder base please see **www.umicore.com/investorrelations**.

Umicore strives to provide timely and accurate company information to the investment community. These communication efforts include management road-shows and site visits, conferences, investor fairs for individual investors, webcasts and conference calls. During 2013 Umicore's analyst coverage increased slightly 21 brokerage firms publishing 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 (known as 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 2013 please see pages 23-25 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 81 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 € 70 million in taxes as a result of its operations in 2013. Umicore and its employees also contributed a total of some € 114 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 € 7 million of grants were awarded in 2013 relating primarily to planned R&D projects. Some € 5 million of cash relating to previously-awarded grants was received in 2013. The company has a policy of not making donations to political parties or organizations.

In 2013 Umicore further intensified its efforts to guide public policy and foster contacts with public authorities worldwide. These efforts are co-ordinated through the Government Affairs department and focus primarily on Europe, North America and the People's Republic of 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: the availability of critical raw materials (particularly from the perspective of a "circular" economy) through policies dealing with resource efficiency and waste; 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 play an active role, among others, in the European Innovation Partnership for Raw Materials, the European Resource Efficiency Platform, the High Level Group on Key Enabling Technologies and the ERA-MIN network on industrial handling of raw materials for European Industries.

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
- 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 Materials**

- Cobalt Development Institute
- Nickel Institute
- Energy Materials Industrial Research Initiative (EMIRI)
- European Association for Battery, Hybrid and Fuel Cell Electric Vehicles (AVERE)

#### **Performance Materials**

- International Zinc Association
- International Platinum Group Metals Association
- European Precious Metals Federation
- German Precious Metals Federation

#### Recycling

- European Electronics Recyclers Association
- International Association of Portable Rechargeable Batteries (RECHARGE)
- International Platinum Group Metals Association
- International Precious Metals Institute
- International Antimony Association

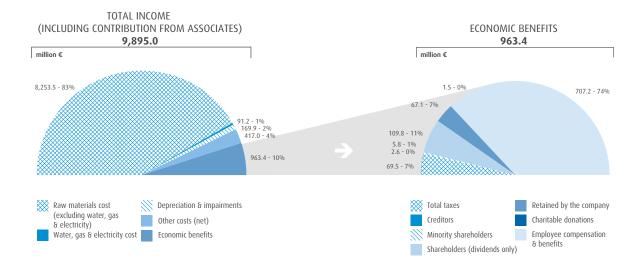
Several of Umicore's business units are signatories of the "Responsible Care" programme for the chemicals industry and some are also members of the European Chemical Industry Council (CEFIC).

### 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 € 963 million.

The biggest portion (€ 707 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 € 3 million, while taxes to the governments and authorities in the places where it operates, totalled € 70 million. The earnings attributed to minority shareholders were € 6 million.

Subject to approval by shareholders at the AGM in April 2014, a gross dividend of € 1.00 per share will be distributed for the year 2013, resulting in a total provisional pay-out of € 1.10 million (using the number of shares outstanding at the end of 2013). Of this figure a portion was already paid out in September 2013 in the form of an interim dividend, and the remainder will be paid out in 2014. This is in line with Umicore's policy of paying a stable or gradually increasing dividend. Umicore bought back 2.0 % of its own shares in 2013 for a total sum of € 85 million. Although this is not included in the distribution charts it can also been considered as an indirect return to shareholders. Umicore spent some € 1.5 million on charitable donations.



# **Board of Directors**











#### Thomas Leysen, 53

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 1 October 2011 he is Chairman of KBC Group, a banking and insurance group. He is also Chairman of Corelio, a Belgian media group, and a member of the supervisory Board of Bank Metzler (Germany).

# Director since:

10 May 2000

**Expiry of mandate:** Ordinary General Meeting of 2015 **Chairman since:** 

19 November 2008

Chairman of the Nomination & Remuneration Committee since:

19 November 2008

#### Marc Grynberg, 48

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 Chief Financial Officer 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 2015 Chief Executive Officer since: 19 November 2008

#### Isabelle Bouillot, 64

Non-Executive Director

Isabelle Bouillot holds a diploma of the French "National School of Administration". She has occupied different positions in French public administrations, among them economic advisor for the President of the Republic between 1989 and 1991 and Budget Director at the Ministry of Economy and Finance between 1991 and 1995. She joined the Caisse des Dépôts et Consignations as Deputy Chief Executive Officer in 1995 and was in charge of financial and banking activities. Between 2000 and 2003. she was Chief Executive Officer of the Investment Bank of the Group CDC IXIS. She is presently President of China Equity Links and a member of the Board of Saint-Gobain and Air France.

#### Director since:

14 April 2004

**Expiry of mandate:** Ordinary General Meeting of 2016

#### Uwe-Ernst Bufe, 69

Independent, Non-Executive Director

Uwe-Ernst Bufe was CEO of Degussa until May 2000. He is a member of the Supervisory Board of Akzo Nobel N.V. (Netherlands).

# Director since:

26 May 2004

**Expiry of mandate:** Ordinary General Meeting of 2014

### Arnoud de Pret, 69

Non-Executive Director

Arnoud de Pret was with Morgan Guaranty Trust Company in New York from 1972 until 1978. From 1978 until 1981 he was group treasurer of Cockerill-Sambre, and until 1990 he was group finance manager and member of the Executive Committee of UCB. He was Chief Financial Officer and member of the Executive Committee of Umicore from 1991 until May 2000. He is a member of the Board of Sibelco, UCB and L'Intégrale. He is a member of the Supervisory Board of Euronext N.V.

# Director since:

10 May 2000

Expiry of mandate: Ordinary General Meeting of 2014 Member of the Audit Committee since: 1 January 2001 (Chairman since 26 April 2011)

#### Ines Kolmsee, 43

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). Since 2004 she has been CEO of SKW Stahl-Metallurgie Group, a specialty chemicals company with operations worldwide. She is also a member of the Supervisory Board of Fuchs Petrolub AG. In the past she occupied different positions, including as CFO at Argues Industries AG.

### Director since:

26 April 2011

Expiry of mandate: Ordinary General Meeting of 2014 Member of the Audit Committee since: 26 April 2011

#### Shohei Naito, 70

Independent, Non-Executive Director

Shohei Naito started his career at the Japanese Ministry of Foreign Affairs. At the Ministry he served as Director General for Consular Affairs & Migration and as Chief of Protocol. Mr Naito has filled several diplomatic functions overseas and he was appointed as Ambassador in 1996. Since that date he has served as Japan's ambassador to Cambodia, Denmark concurrently with Lithuania and Belgium.











He left the diplomatic service at the end of 2006.

Director since: 25 April 2007

Expiry of mandate:

Ordinary General Meeting of 2014 Member of the Nomination and Remuneration Committee since: 30 April 2013

#### Jonathan Oppenheimer, 44

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 was an Executive Director of De Beers S.A. from 2006-2012 where he held a number of different roles.

#### Director since: 5 September 2001

Expiry of mandate: Ordinary General Meeting of 2014

Rudi Thomaes, 61 Independent,

Non-Executive Director

Mr. Thomaes studied law at the University of Antwerp. From 2004 until September 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 Secretary General of the Belgian Chapter of the International Chamber of Commerce, Chairman of the Beheersmaatschappij Antwerpen Mobiel (BAM) NV, 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 2015 Member of the Audit Committee **since:** 30 April 2013 Member of the Nomination and

Remuneration Committee since: 24 April 2012

# Klaus Wendel, 70

Non-Executive Director

Klaus Wendel, after a career in financial management with General Electric (USA), Siemens, Cockerill-Sambre and CBR, joined Société Générale de Belgique in 1988 as member of the Executive Committee, responsible for group control. Since 2000 he has been an independent consultant.

# Director since:

26 July 1989

**Expiry of mandate:** Ordinary General Meeting of 2014

**Karel Vinck** Honorary Chairman



# **Executive Committee**

















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 to 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.

#### Hugo Morel, 63

Executive Vice-President Recycling

Hugo Morel holds a Masters degree in Metallurgical Engineering from the University of Leuven. He joined Umicore in 1974 and held several positions in production, commercial, strategy and general management. He headed the Zinc Chemicals business unit from 1996 to 1997 and was appointed to his present position in 1998. He joined the Executive Committee in 2002. Besides heading the Recycling business group, he is also responsible for Purchasing & Transportation.

Marc Van Sande, 61 Executive Vice-President

Executive Vice-Presiden Energy Materials

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 headed the Energy Materials business group.

#### Pascal Reymondet, 54

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. From June 2010 to October 2012

he assumed responsibility for the Performance Materials business group. In November 2012 he took up the function of EVP Catalysis.

# Denis Goffaux, 46

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 South Korea. Denis was previously head of the Rechargeable Battery Materials business line and Country Manager Japan, where he laid strong foundations for Umicore to grow its industrial presence and commercial activities in the country. He was appointed to his present post in July 2010. Besides his position as Chief Technology Officer, he also is responsible for Environment, Health & Safety.

### Stephan Csoma, 49

Executive Vice-President Performance Materials

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 has extensive strategic and operational and commercial experience. He set up Umicore's

first industrial operations in China in the mid-1990s and ran Umicore's former South African cobalt operations. Between 2001 and 2005 he led the Zinc Chemicals business unit and from 2005 to 2009 he was SVP for Umicore South America. Afterwards he became SVP Government Affairs. In November 2012 he took up the function of EVP of Performance Materials and retains oversight responsibility for Government Affairs.

#### Filip Platteeuw, 41

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 financial experience including nine years in investment banking, corporate banking and equity research with KBC bank. He is also responsible for Corporate Development.

# Senior Management



# Assurance reports



# STATUTORY AUDITOR'S REPORT TO THE GENERAL SHAREHOLDERS' MEETING ON THE CONSOLIDATED ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2013

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 at 31 December 2013, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flow for the year then ended, and notes, 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 Umicore ("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) 3.512.297 and the consolidated income statement shows a profit for the year (Group share) of EUR (000) 179.029.

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 audit. We conducted our audit in accordance with International Standards on Auditing (ISAs). Those standards require that we comply with ethical requirements and plan and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are 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 judgment, 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 statutory auditor considers internal control relevant to the Group's preparation and fair presentation of the consolidated 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 appropriateness 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.

Unqualified Opinion

In our opinion, the consolidated financial statements set forth on pages 49 to 114 of the Annual Report 2013 give a true and fair view of the Group's net equity and consolidated financial position as at 31 December 2013 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 48 and 115 to 188 of the Annual Report 2013 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, 27 March 2014

The Statutory Auditor PwC Bedrijfsrevisoren BCVBA Represented by

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Marc Daelman\* Registered Auditor \*Marc Daelman BVBA Board Member, represented by its fixed representative, Emmanuèle Attout Registered Auditor

PwC Bedrijfsrevisoren cvba, burgerlijke vennootschap met handelsvorm - PwC Reviseurs d'Entreprises scrl, société civile à forme commerciale - Financial Assurance Services
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#### INDEPENDENT LIMITED ASSURANCE REPORT ON THE ENVIRONMENTAL AND SOCIAL STATEMENTS OF THE ANNUAL REPORT 2013 OF LIMICORE AND ITS SUBSIDIARIES

This report has been prepared in accordance with the terms of our engagement contract dated 4 March 2011, 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 2013 in the accompanying Annual Report 2013 of Union and its subsidiaries (the "Report").

Responsibility of Board of Directors

The Board of Directors of Umicore ("the Company") is responsible for the preparation of the information and data in the Environmental and Social Statements set forth in the Report of Umicore and its subsidiaries and the declaration that its reporting meets the requirements of the Global Reporting Initiative (GRI) G3.1 application level B4 as set out on pages 119 to 147 and 184 to 188 ("the Subject Matter Information"), in accordance with the criteria disclosed in the Environmental and Social Statements and with the recommendations of the GRI (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 their lar requirements and that we negagement to obtain limited assurance as to whether nothing has come to our attention that causes us 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 judgement, 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 2013 on pages 119 to 147 of the Annual Report 2013;
- conducting interviews with responsible officers including site visits;
   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 fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. Our audit firm applies International Standard on Quality Control (ISQC) n° 1 and accordingly 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.

#### Conclusion

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 2013 on pages 119 to 147 of the Annual Report of Unicore and its subsidiaries, and Unicore's assertion that the report meets the requirement CRI (03.1 application level B+; is not fairly stated, in all material respects, in accordance with

 $Restriction \ on \ Use \ and \ Distribution \ of our \ Report$ 

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 2013 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, 27 March 2014

PwC Bedrijfsrevisoren bcvba Represented by

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Marc Daelman\*

\*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
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RBS BE89 7205 4043 3185 - BIC ABNABEBR

## 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.

#### **Blanks**

A product that is close to its finished state and requires limited further working by the customer. Examples include germanium blanks that require further polishing for use in optical applications or silver coin blanks that require stamping.

#### Brazing

A metal-joining process whereby a filler metal is heated above melting point and distributed between two or more metal parts.

#### 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 (see 'salts').

#### 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.

#### **Concentrator photovoltaics**

A technique to concentrate solar energy in a photovoltaic panel using magnifying lenses or mirrors.

#### **Contact material**

Materials (usually containing silver) that are used for their conductive properties in electrical applications eg for switches.

#### Diesel particulate filter (DPF)

A device designed to remove diesel particulate matter or soot from the exhaust gas of a diesel engine.

#### **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.

#### Electrolysis

In chemistry electrolysis is a method of using a direct electric current (DC) to drive an otherwise nonspontaneous chemical reaction.

#### **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 VI

European emission standard for exhaust emissions of heavy duty vehicles implemented in January 2014.

#### Euro 6

European emission standard for exhaust emissions of new passenger vehicles set for implementation in 2014.

#### **Fashion jewellery**

Mass-produced jewellery.

#### 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.

#### GDF

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) Electrical Vehicle

Vehicle (passenger car or other) that runs fully or partially (hybrid) on electricity, rather than on conventional fuel.

#### 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.

#### LCD

Liquid crystal display.

#### 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.

#### Life science industry

Also known as biotechnology industry: the field of applied biology that involves the use of living organisms and bioprocesses in engineering, technology, medicine and other fields.

#### 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.

## MOCVD – metal organic chemical vapour deposition

Method used to produce single or polycrystalline thin films on a substrate.

#### 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.

#### **OECD**

Organization of Economic Co-operation and Development.

#### 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.

#### **UHT - Ultra High Temperature**

Umicore patented Ultra high temperature process (>3000°C) using plasma technology to treat and recycle materials using less energy than traditional processes.

#### 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 non-application 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.

## 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.

## Best available technology (BAT)

A term relating to technology used to limit pollutant discharges.

#### Biomarker of exposure

Substance or its metabolite that is measured in biological fluids (e.g. blood) to assess internal body exposure.

#### Chemical Oxygen Demand

Indirect measure of the amount of organic pollution that cannot be biologically oxidized in a sample of water.

#### CO, 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.

#### Combined Heat Power Cogeneration

The use of heat to generate electricity.

#### Concentrates

Ore or metal separated from its containing rocks or earth.

#### **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.

#### Dataset (EHS)

A defined set of data on the physical, chemical and toxicological properties of a product.

#### Decibel

Unit of noise level.

#### **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 CO<sub>2</sub>.

#### **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.

#### Intermediate

A substance that is manufactured for and consumed in or used for chemical processing in order to be transformed into another substance.

#### ISO 14001

'International Standards Organisation' specification for environmental management systems (ref. ISO).

#### **Kyoto Protocol**

A protocol to the United Nations Framework Convention on Climate Change (UNFCCC). It requires countries listed in its Annex B (developed nations) to meet reduction targets of GHG emissions relative to their 1990 levels during the period of 2008–12.

#### Life-cycle (assessment)

Assessment of the sum of a product's effects (e.g. GHG emissions) at each step in its life cycle, including resource extraction, production, use and waste disposal.

#### 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.

#### **Process emissions**

Emissions generated from manufacturing processes, such as the CO<sub>2</sub> that is arising from the breakdown of calcium carbonate (CaCO<sub>2</sub>).

#### **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 1<sup>st</sup> life cycle and will be re-processed through recycling leading to a 2<sup>nd</sup>, 3<sup>rd</sup>... lifetime.

#### Risk assessment

The evaluation of the risks of existing substances to man, including workers and consumers, and to the environment, in order to ensure better management of those risks.

#### SafeStart®

An advanced safety awareness training and skills development program.

#### Scope 1, 2, 3 CO<sub>2</sub>e emissions

Scope 1 CO<sub>2</sub>e emissions: A reporting organization's direct GHG emissions.

Scope 2 CO<sub>2</sub>e 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  $\rm CO_2e$  emissions: A reporting organization's indirect emissions other than those covered in Scope 2.

#### Scrubbing

A process using air pollution control devices to remove some particulates and/or gases from industrial exhaust streams.

#### 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.

#### Sickness rate

Total number of working days lost due to sickness; excluding long term sickness and days lost due to maternity leave. This number is related to the total number of working days per year.

#### **Temporary workers**

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.

## **GRI** Index

GRI Reference	Indicator	Page reference in Annual Report 2013	
General			
Strategy and analysis			
1.1	CEO and Chairman statement	6-7	
1.2	Description of key impacts, risks, and opportunities.	6-7; 3; Corporate governance statements: G18	
Organizational profile			
2.1	Name of the organization	Front cover	
2.2	Primary brands, products and services	1; 3; 5; 12-13; 26; 30; 34; 38	
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	1; 3; 5; 26; 30; 34; 38; Corporate governance statements: G2; Economic and 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 and names of countries with major operations	5; Social statements: S2	
2.6	Nature of ownership and legal form	Back cover	
2.7	Markets served	1-3; 5; 8-9; 11-13; 25-29; 32; 34-37; 38-41	
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	10; 36; Social statements: S1, S10, S11; Environmental statements: E1	
2.10	Awards received in 2013	1; 13; 16; 23; 25; 33; 41; Social statements: S4	
Report parameters			
3.1	Reporting period	Front cover; Inside front cover; 190; Environmental statements: E2	
3.2	Date of most recent report	Annual reports: http://www.umicore.com/reporting/Home/Archive/	
3.3	Reporting cycle	Front cover; Inside front cover; Annual reports: http://www.umicore.com/reporting/Home/Archive/	
3,4	Contact points for questions regarding the report or its content	Inside back cover; General: tim.weekes@umicore.com; Financial: evelien.goovaerts@umicore.com; Social: mark.dolfyn@umicore.com; Environmental: bert.swennen@umicore.com;	
3.5	Process for defining report content	190; Corporate governance statements: Stakeholder engagement	
3.6	Boundary of the report	190; Social statements: S1, S8, S10, S11; Environmental statements: E1, E3, E8, E9	
3.7	Limitations on the scope or boundary of the report	190; Social statements: S1, S8, S10, S11; Environmental statements: E1, E3, E8, E9	
3.8	Basis for reporting on joint ventures & subsidiaries	190; Social statements: S1; Environmental statements: E1; Economic and financial statements: F17; Corporate governance statements: G2	
3.9	Data measurement techniques and the bases of calculations	190; Social statements: S1-S11; Environmental statements: E1-E10; Economic and financial statements: F1	
3.10	Explanation of the effect of any restatements of information provided in earlier reports, and the reason for such re-statement	190; Social statements: S1, S10, S11; Environmental statements: E1, General management approach: http://www.umicore.com/sustainability/	
3.11	Significant changes from previous reporting period in scope, boundary or measurement	190; Social statements: S1, S8, S10, S11; Environmental statements: E1, E2; E3	

GRI Reference	Indicator	Page reference in Annual Report 2013	
3.12	GRI Index	190; This page	
3.13	Assurance	190; General management approach: http://www.umicore.com/sustainability/; Supervision and compliance: http://www.umicore.com/governance/en/supervisio	
Governance, commitn	nents and engagement		
4.1	Governance structure of the organization	Corporate governance statements: G2, G4, G5; General management approach: http://www.umicore.com/sustainability/	
4.2	Non-executive status of Chairman	174; Corporate governance statements: G2	
4.3	Number, gender and status of Board members as independent and executive / non-executive	174-175; Corporate governance statements: G2, G4	
4.4	Mechanisms for shareholders and employees to provide recommendations to the Board	Corporate governance statements: G3, G9, G10, G11, G21; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/governance/en/	
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/governance/en/	
4.6	Processes in place to ensure conflicts of interest are avoided	Corporate governance statements: G7, G9-G11; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/governance/en/	
4.7	Process for determining the qualifications or expertise of the members of the highest governance body	Corporate Governance Charter: http://www.umicore.com/governance/en/charter/	
4.8	Internal guidelines and policies	Corporate governance statements: G1; G9; The Umicore Way: http://www.umicore.com/en/aboutUs/ umicoreWay/; Corporate Governance Charter and Code of Conduct: http://www.umicore.com/governance/en/	
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/governance/en/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; Responsible Care; 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/sustainability/stakeholders/	
4.16	Approach to stakeholder engagement, including frequency of engagement	Corporate governance statements: Stakeholder engagement, G19-G26; Approach to Stakeholder engagement: http://www.umicore.com/sustainability/stakeholders/	
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, including through its reporting	Corporate governance statements: stakeholder engagement; Genera management approach: http://www.umicore.com/sustainability/; Approach to Stakeholder engagement: http://www.umicore.com/sustainability/stakeholders/	
Disclosure on manage	ement approach		
5		Disclosures on management approach: http://www.umicore.com/sustainability/context/	

GRI Reference	Indicator	Page reference in Annual Report 2013		
Economic indicators				
Economic performance				
EC1 (CORE)	Economic value generated and distributed	4-5; 8-13; 26-41; Economic and financial statements: F8, F9, F39; Corporate governance statements: G26		
EC2 (CORE)	Financial implications and other risks and opportunities for the organization's activities due to climate change	18-19; Corporate governance statements: G18; Environmental Management Approach: http://www.umicore.com/sustainability/environment/Approach/; The Umicore Way: http://www.umicore.com/en/aboutUs/umicoreWay/		
EC3 (CORE)	Coverage of the organization's defined benefit plan obligations	Economic and financial statements: F27		
EC4 (CORE)	Significant financial support received from government	Corporate governance statements: G25		
Indirect economic impacts	5			
EC8 (CORE)	Development and impact of investments for public benefit	4; 23-25; 29; 33; 37; 41; Social statements: S5; Environmental statements: E8; Corporate governance statements: G25		
Environmental indicat	tors			
Materials				
EN2 (CORE)	Percentage of materials used that are recycled input materials	5; Environmental statements: E6		
Energy				
EN3 (CORE)	Direct energy consumption by primary energy source	Environmental statements: E4		
EN4 (CORE) EN5 (ADDITIONAL)	Indirect energy consumption by primary energy source Energy saved due to conservation and efficiency improvements	Environmental statements: E4 Environmental statements: E4		
EN6 (ADDITIONAL)	Initiatives to provide energy-efficient or renewable energy based products and services	10-12; 18-21; 31-32; Environmental statements: E4; Umicore's position statements on carbon foorprint reduction: http://www.umicore.com/sustainability/environment/positionStatements/carbonReduction.htm (partially reported)		
EN7 (ADDITIONAL)	Inititatives to reduce indirect energy consumption and reductions achieved	18-19; Social statements: S8; Umicore's position statements on carbon foorprint reduction: http://www.umicore.com/sustainatenvironment/positionStatements/carbonReduction.htm (partial reported)		
Water EN8 (CORE)	Total water withdrawal by source	Environmental statements: E5		
	Total Water Withdrawar by Source	Elimonnella statements. Es		
Biodiversity EN11 (CORE)	Location and size of operations in or adjacent to protected areas and areas of high biodiversity value outside protected areas	Environmental statements: E10 (partially reported)		
Emissions, effluents and v	waste			
EN16 (CORE)	Total direct and indirect greenhouse gas emissions by weight	Environmental statements: E3		
EN17 (CORE)	Other relevant indirect greenhouse emissions by weight	Environmental statements: E3		
EN18 (ADDITIONAL)	Initiatives to reduce greenhouse gas emissions and reductions achieved	18-21; 29; 33; 36; 41; Environmental statements: E3		
EN20 (CORE)	NOx SOx and other significant air emissions by type and weight	Environmental statements: E2		

GRI Reference	Indicator	Page reference in Annual Report 2013
EN21 (CORE)	Total water discharge by quality and destination	Environmental statements: E2
	Total weight of waste by type and disposal method	Environmental statements: E7
EN22 (CORE)	Total weight of waste by type and disposal method	ENVIORIMENTAL STATEMENTS: E7
Products and services		
EN26 (CORE)	Initiatives to mitigate environmental impacts of	12 10 21, 25, 20, 27
ENZO (CORE)	products and services	12; 18-21; 25; 29; 37; Environmental statements: E2, E6 (partially reported)
Labour acacticae and	•	Environmental statements: LZ, Lo (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; 16; Social statements: S4
LAZ (COKE)		4-5; 10; 50clal statements: 54
Labour/management re	lations	
LA4 (CORE)		Social statements: S6
LA4 (CORE)	Percentage of employees covered by collective	Social statements: 50
	bargaining agreements	
Occupational health and	safety	
LA7 (CORE)	Rates of injury, occupational diseases, lost days and	4; 14-15; 27-29; 31-33; 35-36; 39-41; Social statements: S9, S10, S11
EAT (CORE)	absenteeism and number of work-related fatalities by	(partially reported)
	region	(partially reported)
LA9 (ADDITIONAL)	Health and safety topics covered in formal agreements	16; Social statements: S6; Sustainable Development Agreement:
LAS (ADDITIONAL)	with trade unions	http://www.umicore.com/sustainability/social/sustDevAgreement/
	with tidde dilions	2011SDAgreement.pdf
		201130719. Certificity of
Training and education		
LA10 (CORE)	Average hours of training per year per employee by	4; 15-16; Social statements: S3
2110 (00112)	employment category	., 13 10, 300.01 310.011.01.03
LA12 (ADDITIONAL)	Percentage of employees receiving regular	16; Social statements: S3 (partially reported)
,	performance and career development reviews	(, , , , , , , , , , , , , , , , , , ,
	J	
Diversity and equal opport	ortunity	
LA13 (CORE)	Composition of governance bodies and breakdown	174-177;Corporate governance statements: G4, G5; Social state-
	of employees per category according to gender,	ments: S2. Minority groups are not identified in Umicore considering
	age group, minority group membership, and other	that in some countries where Umicore operates, it is forbidden to ask
	indicators of diversity	questions related to this topic (eg. U.S.A. and France)
Human Rights		
Investment and procure		
HR2 (CORE)	Percentage of significant suppliers, contractors and	22-23; Social statements: S8; Corporate governance statements: G18
	other business partners that have undergone human	
	rights screening, and actions taken	
HR3 (CORE)	Total hours of employee training on policies and	15-16; Social statements: S8; All employees receive informal training
	procedures concerning aspects of human rights	on the Code of Conduct:
	including percentage of employees trained	http://www.umicore.com/governance/en/CodeOfConduct/
	and collective bargaining	
HR5 (CORE)	Operations identified in which the right to exercise	Social statements: S6, S8; Sustainable Development Agreement:
	freedom of association and collective bargaining may	http://www.umicore.com/sustainability/social/sustDevAgreement/
	be at significant risk and actions taken	2011SDAgreement.pdf
Child labour		
HR6 (CORE)	Operations identified as having significant risk for	Social statements: S6, S8; Sustainable Development Agreement:
	incidents of child labour and measures taken to	http://www.umicore.com/sustainability/social/sustDevAgreement/
	contribute to the elimination of child labour	2011SDAgreement.pdf

GRI Reference	Indicator	Page reference in Annual Report 2013
Formal and accordance	lab and	
Forced and compulsory HR7 (CORE)	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	Social statements: S6, S8; Sustainable Development Agreement: http://www.umicore.com/sustainability/social/sustDevAgreement/ 2011SDAgreement.pdf
Society		
Local communities		
SO1 (CORE)	Percentage of operations with implemented local community engagement, impact assessments, and development programs	23-25; Social statements: S5
Corruption		
SO2 (CORE)	Percentage and total number of business units analysed for risks related to corruption	Corporate governance statements: G15; G24; Umicore is signatory of PACI
SO3 (CORE)	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/governance/en/CodeOfConduct when joining the company
Public policy		
SO5 (CORE)	Public policy positions and participation in public policy development and lobbying	Corporate governance statements: G25
SO6 (ADDITIONAL)	Total value of financial and in-kind contribution to political parties, politicians and related institutions	Corporate governance statements: G25
Product responsibili	ity	
Customer health and sa	afety	
PR1 (CORE)	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	20-21; Environmental statements: E6 (partially reported)
Product and service lab	eling	
PR3 (CORE)	Type of product and service information required by procedures and percentage of significant products and service categories subject to such information requirements	21; Environmental statements: E6

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## About this report

### Umicore's Annual Report 2013 offers a comprehensive and integrated view of Umicore's economic, financial, environmental and social performance for 2013.

The report consists of two sections – a Management Review and a statements section. The Management Review (pages 1 to 41) provides an introduction to Umicore and focuses on the key performance aspects of 2013 as they relate to Umicore's Vision 2015 strategy. The statements section (pages 42 to 190) includes full financial, environmental, social & governance statements and notes. All elements of the Annual Report 2013 can be consulted at Umicore's on-line reporting centre at www.umicore. com/reporting.

#### An integrated approach

One of the key objectives of Umicore's Annual Report has been to reflect Umicore's strategic approach – Vision 2015. This strategy integrates clear economic, environmental and social objectives. Umicore's approach aims to integrate reporting on its economic, environmental and social performance. 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 2013 covers Umicore's operations for the financial / calendar year 2013. No major changes of scope took place in 2013. This report represents the third year in which Umicore reports on its progress towards its 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 2009.

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 – 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 50 to 117 and page 178 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 119 to 147. The independent auditor's report of PwC on the social and environmental statements can be found on page 179 of the report.

The report has achieved the B+ level of application of the Global Reporting Initiative (GRI). A full GRI index can be found on page 184 to 188. The Global Reporting Initiative (GRI) is a network-based organisation that pioneered the world's most widely used sustainability reporting framework which sets out the principles and performance indicators that organisations can use to measure and report their economic, environmental, and social performance.

#### 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 the on-line version 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 (www.umicore.com/sustainability) and should be considered as part of this report.

## Financial calendar (1)

### 29 April 2014

General meeting of shareholders (financial year 2013) Trading update for the first quarter of 2014

# 2 May 2014 Share traded ex-dividend

### 7 May 2014

Payment of dividend starts

# 31 July 2014 Interim results for the first half of 2014

### 23 October 2014

Trading update for the third quarter of 2014

## Feedback

Let us know what you think about this report, Send an E-mail to stakeholder@umicore.com

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#### Languages

This report is also available in French and Dutch.

#### Internet

This report can be downloaded from the Umicore website: www.umicore.com/reporting.

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#### **Concept & realization**

The Crew

#### **Photographs**

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