

Sustainability Report 2013



outokumpu

working towards a world that lasts forever



CONTENTS

CEO's foreword..... 1
Highlights 2013..... 2
Sustainable Stainless..... 4
 Product properties.....6
 Product life cycle.....8
 Safe use of stainless.....9
 Product and application development.....9
Our impact on the environment..... 10
 Environmental goals and results.....14
 Materials efficiency.....15
 Material balance.....18
 Energy efficiency.....19
 Climate change.....22
 Emissions, effluents and waste.....25
 Water.....29
 Biodiversity.....30
 Sustainable Supply Chain.....31
 Environmental investments and expenditures.....33
Our people..... 34
 Focus on company turnaround.....36
 Goals and results.....38
 Diversity and equal rights.....38
 Open communication in integration and managing change.....39
 Training and development.....40
 Compensation and benefits.....40
 Performance management.....40
Safe working environment..... 42
 Health.....44
 Safety.....44
Outokumpu and society..... 46
 Risks and stakeholders.....48
 Customers.....49
 Suppliers.....50
 Current and future employees.....50
 Investors and analysts.....51
 Local communities.....51
 Associations and federations.....53
 Public sector, sponsoring and NGOs.....54
Reporting on sustainable development..... 56
 Focus on material issues.....58
 GRI and UN Global Compact.....59
 Reporting principles65
 Independent Assurance Report.....67

This Sustainability Report includes reporting of our economic, environmental and social responsibility. Please check our Annual Report 2013 for Financial Statements and Corporate Governance Statement.

Based on the divestment of Terni remedy assets and VDM business, the sustainability reporting is aligned with the financial reporting for 2013. Hence, the Sustainability Report for 2013 covers mainly Outokumpu continuing operations unless otherwise stated in the report. Please see reporting principles for detailed information.

CEO's foreword

The year 2013 saw the dawn of a new era for Outokumpu. With the acquisition of Inoxum, our business grew to a larger scale; our portfolio, our geographical reach and our responsibilities as a new global market leader in stainless steel. We captured this commitment in our new vision of "a world that lasts forever".

Sustainability plays a central role in our business, as it has always done. Not just out of duty as market leader; we also see it as a key driver for our long-term competitiveness and growth. Sustainability goes to the heart of our mission to create advanced materials that are efficient, long-lasting and recyclable; materials like our fully recyclable stainless steel. As a material, stainless steel is also strong, corrosion-resistant, durable and hygienic; in many ways, it is the perfect answer to global challenges such as resource scarcity, urbanization, and global climate and water challenges. As good as stainless steel is, we constantly seek to innovate – to find better forms, better applications and better ways to produce it.

Over the years, our dedication to innovation has yielded results, also in sustainability. The carbon footprint of our products today is more than 50% lower than in the 1990's. We have improved our energy efficiency by utilizing the best available technology in production. And we have significantly reduced the amount of waste that ends up in landfill. Our long-standing program for occupational health and a safe workplace stretches to embrace suppliers and contractors. We continue to pursue transparency, learning from dialogue with customers, investors, non-governmental organizations and local communities.

During 2013, the tough business environment and lower market demand made it difficult for us to achieve capacity utilization in our mills. Despite challenging times, we were able to further reduce our carbon profile and improve energy efficiency. In the new Outokumpu, we increased the recycled



content of our material to more than 85%, well over the industry average of 60%. We also managed to successfully ramp up our recent investments; our new ferrochrome facility in Tornio, Finland and new steel mill in Calvert, Alabama, USA. Combined, these investments also included environmental investments totaling 120 million euros.

We are proud that our work in sustainability has been recognized by independent international institutions. In 2013, the Dow Jones Sustainability Index listed Outokumpu for the seventh consecutive year and currently ranks us as the sole stainless steel manufacturing company in the Index. This kind of recognition from our stakeholders spurs us on to further innovation in our commitment to responsible operations and sustainable production, from supply chain right through to delivery.

We continue to build on our strong heritage in sustainability, high product quality and

solid technical expertise. We are more committed than ever to operating in an ethically sound manner through responsible business practices across the entire value chain.

Our track record and market leadership puts us in a unique position to take the industry forward. As a frontrunner in sustainability thinking, we aim to capitalize on the opportunities this offers for the good of the planet and our own business success. This, in a nutshell, is why sustainability is embedded in our DNA.

The new era for Outokumpu gives us the chance to show others the way forward in sustainability for the stainless steel industry. Together with our customers and partners, we have the opportunity to create and utilize even better materials for a sustainable future.

Mika Seitovirta, CEO

Firm steps forward

Achieving great results and new milestones during 2013 reconfirms that we are stronger together than separate. Now we are even more convinced about our bright future and the benefits of building on the strengths of the new combined Group. This we learned already during the first year, after a great deal of dedicated work.

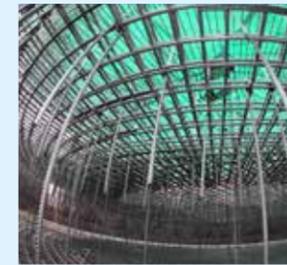
1. New sustainability KPIs

During 2013, we launched new Sustainability Key Performance Indicators (KPIs) to secure the continual improvement and more frequent systematic monitoring of the progress. The KPIs are recycled content, energy efficiency and carbon efficiency. In addition, the KPIs also indicate financial savings against a target baseline, making the economic benefits of sustainability more concrete.



2. Improved environmental performance

Our stainless steel recycled content rose clearly above 85%. Energy efficiency was improved to 10% against baseline and our carbon profile was reduced in line with our long-term target.



4. New environmental product declarations

Outokumpu has implemented “Customer first” thinking in our sustainability work for a long time. It is over a decade since the first Outokumpu Environmental Product Declaration (EPD) was published. During 2013, we widened our range of EPDs. The two latest additions to our EPD family are the Long Products EPD and the Stainless Rebar EPD.

Environmental product declarations are built on life-cycle data and help in calculating sustainability performance over a product’s life cycle. Outokumpu has published EPDs to demonstrate the good performance of its products from this perspective. EPDs help our customers to quantify the environmental performance of their solutions, for example when designing for green buildings or infrastructures.



5. Renewal of our ethical statement and Code of Conduct

Outokumpu has had a public, Board of Directors-approved Ethical Statement since 2005. This statement sets the basis for our ethically sound, responsible operations. These principles are implemented through various corporate policies such as: Policy on Sustainable Development and Corporate Responsibility; Code of Conduct; Environment, Health, and Safety Policies. In a December 2013 meeting, the Ethical Statement was revised by the Board.

The Outokumpu Code of Conduct was published for the first time in August 2008, and this policy was updated in June 2013 with the view of reflecting some recent developments within the organization. The aim of Outokumpu’s Code of Conduct is to ensure that all Outokumpu employees live up to Outokumpu’s ethical standards and assist Outokumpu employees in different situations by setting examples and giving practical guidance.



6. British Medical Journal published Outokumpu’s Chief Medical Officer Markku Huvinen’s long-term study

The British Medical Journal has published an article based on a 30-year study by Outokumpu which reports the findings on cancer incidence among ferrochrome and stainless steel production workers in Kemi and Tornio, Finland. The study shows that there is no added risk of cancer to individuals working in steel mills and living nearby. This study is unique in many ways. First of all due to its long-term (1967–2011) follow-up period and completeness (it includes all employees and cancer cases). It has been conducted in co-operation with academics and health authorities with reference to official national statistics. Now this study has been scrutinized by scientific peer review and published; therefore, it is also publicly available.

Outokumpu rated as a sustainable company by Dow Jones and CDP

Outokumpu was included in the Dow Jones Sustainability Index for the seventh consecutive year. In the latest 2013 ranking, we were the best sole stainless steel manufacturing company and identified as one of the top three in the steel sector globally.

Outokumpu was also rated by the Carbon Disclosure Project (CDP) and included in both CDP Leadership indexes. In the Nordic 260 report in 2013, Outokumpu was, for the first time, awarded inclusion in the Carbon Performance Leadership index and, for the fourth time, inclusion in the Carbon Disclosure Leadership Index.

Outokumpu is currently included in several other sustainability and corporate responsibility indexes and ratings, including: oekom Prime, the Nasdaq OMX CRD Global Sustainability Index, Ethibel register, inclusion in the RobecoSAM Sustainability Yearbook and Silver Class Sustainability Award 2014.



3. Cross-auditing of Outokumpu locations

The new Outokumpu started officially in January 2013; the Group had evolved into the biggest and an even more globally present stainless steel company after completing the major acquisition at the end of 2012. In order to establish a harmonized clear picture about the state of environmental issues and to assess environmental risks across the operative sites, it was decided to perform an intensive site auditing project during 2013. The auditing was conducted in a way that experts from different business units and steel mills together with Group functions participated in audits of other units than the ones they operated themselves. This allowed the extra positive outcome of sharing best practices and building up awareness and competences across Outokumpu.

Sustainable Stainless

As a material, stainless steel is strong, corrosion-resistant, durable and hygienic: in many ways, it is the perfect answer to global challenges such as resource scarcity, urbanization, and global climate and water challenges.

Stainless steel offers properties for superior life cycle

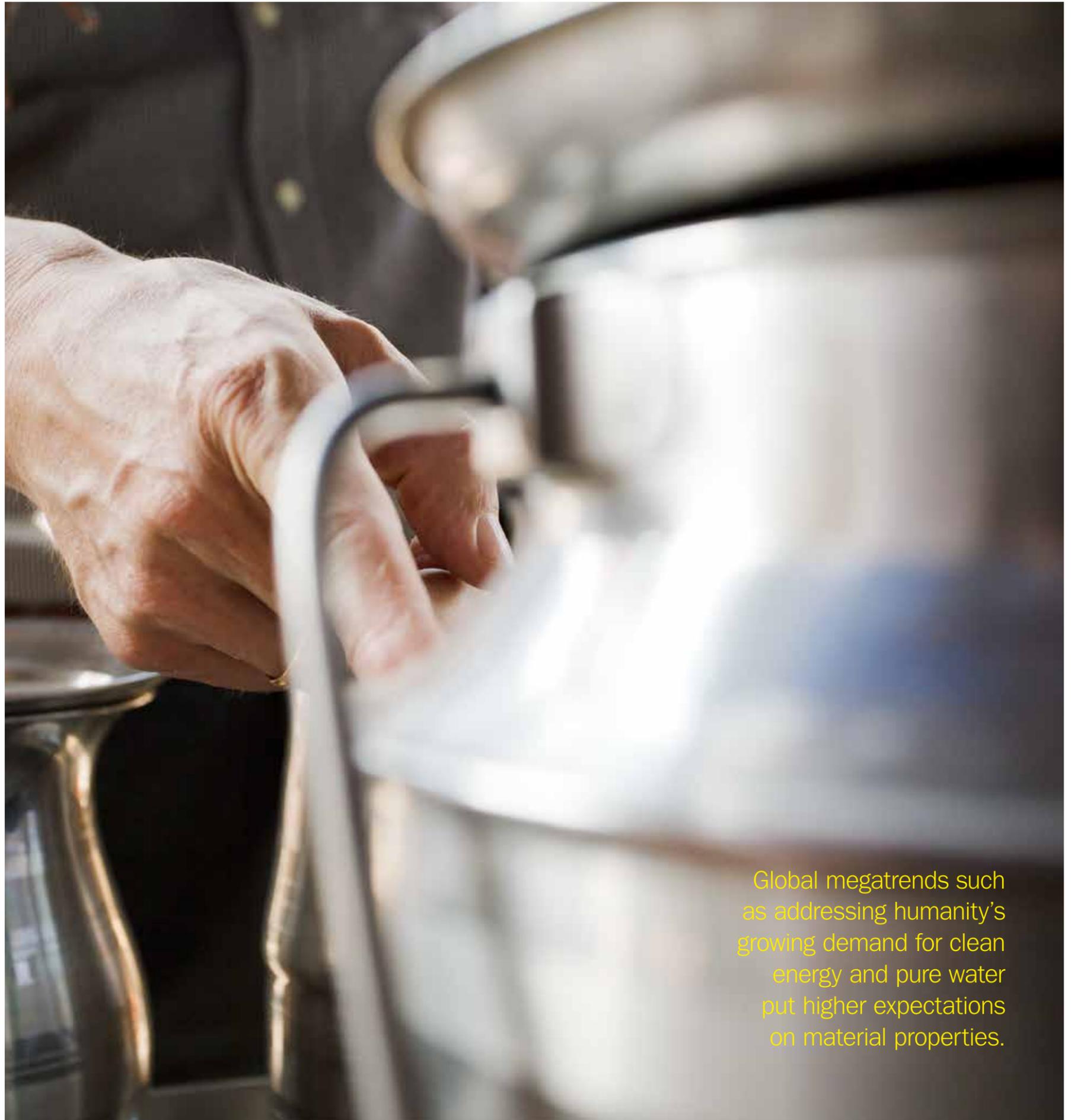
Global megatrends such as addressing humanity's growing demand for clean energy and pure water put higher expectations on material properties. Renewable energy solutions such as solar power, biofuels and wind power require materials that can be sustainably sourced with low life-cycle costs. In applications such as these, stainless steel is often the optimal choice.

We build the future from the past

Steel is the world's most recycled material. Estimates indicate that the current end-of-life recycling rate for stainless steel is some 82%. In global terms, approximately 60% of the raw material used in making new stainless steel is recycled steel. In Outokumpu's manufacturing operations, the average recycled content for all stainless steel products produced by the Group in 2013 was well over 85%.

The most important raw materials used by Outokumpu in producing stainless steel are recycled stainless and carbon steels. Together with metals recovered from waste products and by-products of the production process, they enable the recycled content of stainless steel produced by the Group to be raised significantly higher than the global industry average of 60%. In addition to recycled steel, alloying elements, including iron-containing alloys and other metals such as chromium, nickel and molybdenum, are also required.

Stainless steel is fully recyclable and suffers no degradation during reprocessing. Its constituents (including iron, nickel and chromium) can therefore be reused indefinitely in producing new stainless steel. These excellent recycling characteristics mean that stainless steel is well positioned to meet the demands of a future sustainable society. Outokumpu recognizes that recycling and the life-cycle approach are important elements in achieving sustainable operations.



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Product properties

After the initial investment in resources and energy to manufacture stainless steel, the use phase, in which the material is utilized in end products such as home appliances, interior design or kitchen equipment, demonstrates many sound sustainable characteristics.

Since only extremely low levels of metal ions are released from exposed stainless products in most normal environments, no harmful impact on the environment results. In addition to its corrosion resistance, stainless steel also has good mechanical properties, and these can be exploited by manufacturing lighter components and products without compromising safety requirements. In addition to its excellent recyclability and the high levels of recycling achieved, Outokumpu stainless steel has other properties that support a sustainable society.

The forever material

The durability of stainless steel has a positive impact on life-cycle costs. The fact that only minimal maintenance is required is good for both the environment and society. The combination of corrosion resistance and durability increases product lifetime. One result of increased durability is that unnecessary replacements and repairs, and the consequent need for virgin resources, can be avoided during the product life-cycle and recycling phases.

Durability is becoming an important aspect of sustainable construction. For example, in the LEED (Leadership in Energy and Environmental Design) green building rating system, a minimum of 60 years is considered as a reference for life cycle assessments. When the correct steel grade is chosen, stainless steel easily fulfills this requirement. One of the most famous examples of long-lasting steel panels in construction is the upper part of the Chrysler building, built in 1930. Also, when a Buddhist chedi (stupa) in Chonburi, Thailand was constructed, it was designed to last 1 000 years and Outokumpu stainless steel reinforcement bars were chosen for critical parts.

When cleanliness counts

Stainless steel has a long history of use in applications where cleanliness and maintaining high levels of hygiene are important. Good examples are the medical and food-processing sectors. Stainless steel is the preferred choice for hospital equipment and surgical instruments as it can be easily cleaned and sterilized without degradation. For the same reason, much of the equipment used in pharmaceutical applications and food preparation is also manufactured out of stainless steel. The quantities of metal ions released from stainless steel surfaces are not toxic to humans or the environment, and do not have a negative effect on indoor air quality in buildings.

The unique properties of stainless steel have also helped make the process of desalination – producing potable water from seawater – economically viable. Many arid areas of the world now enjoy the benefits that follow from the availability of clean water. Stainless steel surfaces

do not affect the taste of food and drink and are easy to clean and disinfect, which is why stainless steel is the preferred material in the food processing industry. In 2013, the Council of Europe published a Technical Guide on Metals and alloys used in food contact materials and articles, setting very stringent substance release limits to safeguard the health of EU citizens. The stainless steel industry has initiated tests on stainless steels with respect to these new guidelines. The project is still ongoing in 2014, but preliminary results confirm the suitability of stainless as a food contact material.

Strong, light and safe

The high-strength stainless steels in Outokumpu's portfolio offer economic benefits: less material is required for a specific level of performance, and fewer resources are therefore consumed in its production. High-strength steels can also absorb larger amounts of collision energy, improving safety levels in vehicles and other structural designs.

No. 1 in recycling

In order to improve sustainability, it is important to take steps during the design phase of products that aid efficient recycling in the end-of-life phase. The environmental and sustainability benefits associated with recycling, including the conservation of non-renewable resources, related energy savings, the avoidance of undesirable emissions and reduced levels of waste, affect the whole of society. Stainless steel is 100% recyclable when the product has reached the end of service life. The life time can be very different depending on what kind of products we look at. For buildings, we talk about several decades, while a dishwasher might last about ten years, and for mobile phones the service life might be measured in months. Whatever the product, it is seldom the stainless steel that limits the service life.

Although stainless steel is 100% recyclable, there is always some loss during the collecting and sorting process, which is why the world average end-of-life recycling rate for stainless steel has been estimated at 82%, a number few other materials can match.

A key to the outstanding performance in recycling is the high value of the material and the fact that stainless steel is not downgraded when recycled. Instead, recycled steel is also the main raw material when new advanced stainless steel is produced in Outokumpu melt shops.

Added value

Outokumpu supports customers by providing relevant information on the selection and use of different stainless steel grades. Outokumpu has, for example, registered materials in the IMDS database for the automotive sector. The Group is also ready to provide useful information on how to take advantage of stainless steel's unique properties in forms of sustainable construction.

Achieving results through co-operation

Outokumpu also cooperates with and supports customers and stakeholders by providing information about the sustainable and environmental properties of our stainless steels. For example when the Swedish environmental assessment system for building and construction products, BASTA, needed information on the health and environmental properties of stainless steels, Outokumpu was able to provide that information. As a result of that information exchange, BASTA was able to make an assessment of stainless steels resulting in new guidelines on stainless steels and the acceptance of many stainless steel grades that were not included in the database before.

Product life cycle

A life-cycle analysis reveals the environmental impact of a product over its entire life. The strengths of stainless steel are particularly visible from a life-cycle perspective. The life cycle efficiency of Outokumpu's stainless steels is based on twofold excellence. First are the material's excellent properties during the use phase. Second is the fact that by producing it with the lowest possible environmental impact and embedded energy, we can further improve the life-cycle impact to a level that is very hard to match.

In general terms, the material's properties also enable lower life-cycle costs which are combined with reduced environmental impact. For the last eight years, Outokumpu has been involved in Ecocycle, a wide-ranging research project being carried out in Sweden that has studied each aspect of steel's life-cycle with a view to defining the potential for improving environmental performance. The Project final report was published in 2013. Among the results were new insights into how to increase the yield and avoid wasting valuable metals. The results also demonstrated that the use of advanced high-strength steels can lead to substantial environmental improvements, by utilizing their properties to decrease the need for raw material for example.

Life-cycle studies and related analyses have shown that raising the level of recycled content (recycled steels and recovered metals) in stainless steel production is one of the most efficient ways of reducing the overall

environmental impact of the manufacturing process. As recycled material is a scarce resource and the metallurgical properties of some alloying elements are always required, achieving 100% recycled material content in the production process is currently not possible. Outokumpu has, however, succeeded in raising the input of recycled material to levels that are well above the industry average.

The Group's efficient energy usage, choice of sustainable electricity sources and efficient use of raw materials in production also make important contributions to reducing life-cycle impacts. Outokumpu has chosen to publish Environmental Product Declarations (EPDs) for its products, in order to communicate life cycle information to our customers in a standardized and verified manner. In addition to our existing EPD for flat products, two new declarations have been launched in 2013 for stainless steel rebar and stainless steel long products. In addition to the EPD, our rebar products have Sustainable Constructional Steel Certification according to the CARES sustainability scheme.

Safe use of stainless

Billions of people come into contact with stainless steel on a daily basis, and the lack of any resulting harmful effects is strong evidence of the material's non-toxic properties.

To underwrite this fact, Outokumpu and other companies in the industry have invested considerable effort and resources in studying safety aspects connected with the use of stainless steel. Outokumpu has also invested in the testing of specific materials for their safety in food contact and drinking water applications. Stainless steel in its manufactured forms – as delivered to Outokumpu customers – is inert and non-toxic. On the other hand, industrial processes involving the material, such as welding or pickling, can release substances or fumes that could be hazardous if inhaled for substantial periods of time.

The Safety Information Sheets published by Outokumpu help customers handle our stainless steel products in a safe manner. Health and safety issues are important not only during the manufacturing of stainless steel, but also when the Group's customers are further processing Outokumpu stainless steel, when products made out of stainless steel are being used, and when end-of-life steel is being recycled.

Since stainless steel is inert and non-reactive when employed correctly, the potential impact on people's health and safety is extremely limited. This is one of the reasons why stainless steel is so widely used in medical appliances and in manufacturing the equipment and tools employed in the food processing industry.

Product and application development

Directions to Outokumpu's product development are given by global trends like economic and population growth, mobility, urbanization, climate change and limited resources. We work closely together with our customers in order to align our product development with customers' current and future needs. The development of long-lasting, sustainable material solutions providing advantages over the whole product life cycle is the key focus. The product development involves development of new steel grades, new surface finishes and improvement of existing steel grades.

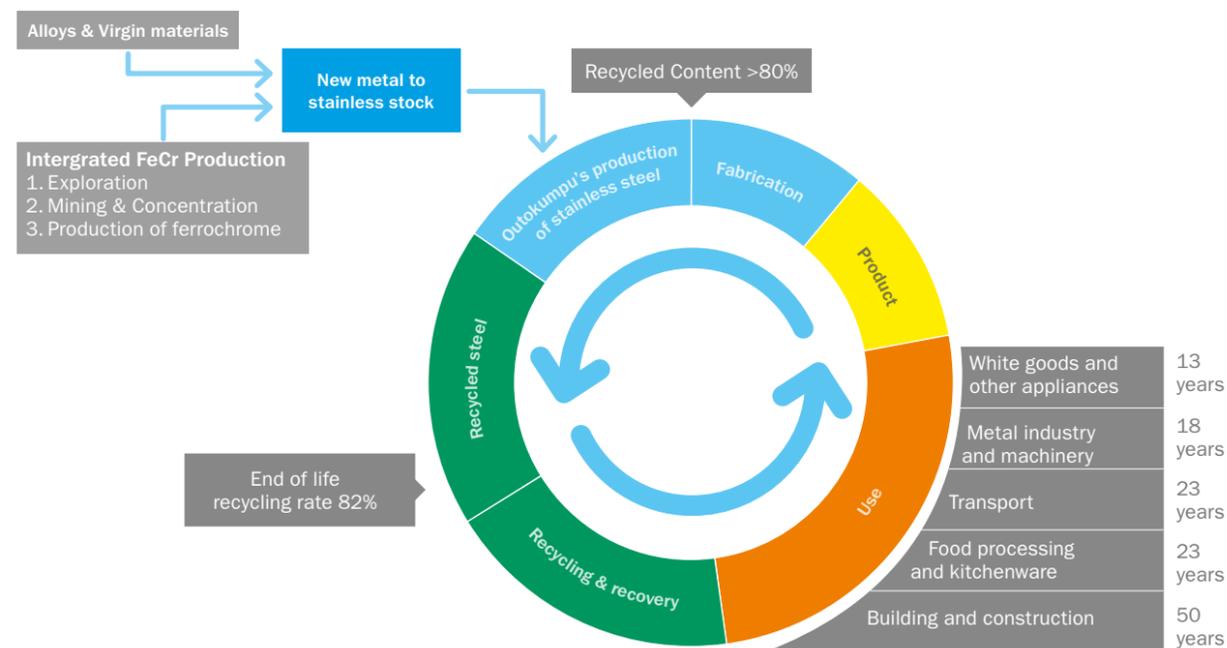
Outokumpu's R&D teams work closely together with our sales organization and customers. Our R&D experts provide our customers with technical support and advice related to material selection, fabrication and material performance in customers' applications.

The highlights of Outokumpu's new product launches in 2013 include new formable duplex steels FDX 25™ and FDX 27™, the high-strength, corrosion-resistant austenitic grade Outokumpu 4420, high-chromium ferritic grade Outokumpu 4622, and EDX 2304™, an enhanced duplex grade 2304 developed for offshore industry. Other examples of new product innovations include the GritLine surface finish and austenitic grades H500, H800 and H1000 for lightweight applications.

FDX is a product family exhibiting a unique combination of price-stable alloying with high strength and substantially improved formability. FDX is a totally new material solution for applications where the formability of current duplex grades has not been sufficient. The new grades complement Outokumpu's already strong duplex offering. The ferritic 4622 grade is Outokumpu's first high-chromium ferritic grade. It is suitable for demanding applications including façades, elevators, catering or the

automotive industry. It has similar corrosion resistance but better deep-drawability than the standard 304 grade. The austenitic 4420 grade is acid-resistant and is suited, for example, for heavy industries, such as construction, pulp and paper, or structures, piping or water treatment applications. Compared to the 316L, it has improved corrosion resistance and higher strength. All the new steel grades offer tangible benefits to our customers, for example in corrosion resistance, strength and formability, and deliver lifecycle advantages compared to traditional stainless steel grades and other materials.

Life-cycle of steel products



Our impact on the environment

Stainless steel is 100% recyclable, hygienic and corrosion-resistant and the environmental impacts resulting from its use are almost non-existent. On the other hand, its production – both the manufacturing and reprocessing stages – does have an impact on the environment.

The most substantial environmental impacts which result from the stainless steel production process include emissions of dust and particles into the air, discharges of water from production plants, and the high levels of direct and indirect energy consumption during production. Landfill waste is also created during the production process.

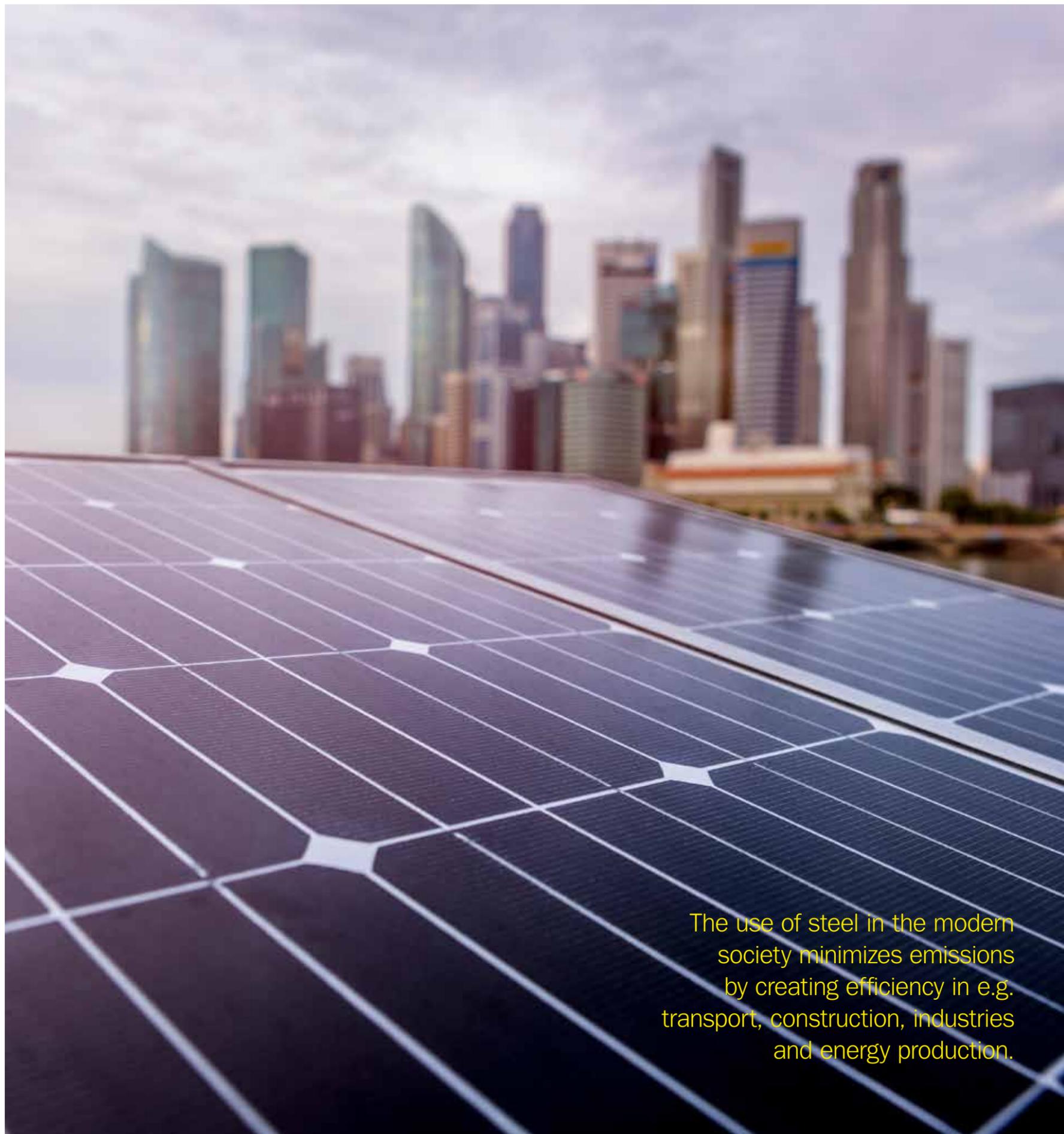
Because the life-cycle of stainless steel products is very long and the recycling rate the highest among metal products the environmental impacts have to be analyzed always per life span, not only related to the production phase. The use of steel in the modern society minimizes emissions by creating efficiency in e.g. transport, construction, industries and energy production. Due to these facts, steel products are solutions in climate compact and the protection of the environment.

Environmental data and reporting for 2013 covers Outokumpu's stainless steel, ferrochrome and mining operations in the continuing operations of the combined company of Outokumpu and Inoxum. Unless otherwise stated, the environmental data for 2012 and 2011 has been restated to reflect Outokumpu's continuing operations.

Outokumpu's way of managing environmental issues

Outokumpu's firm objective is to minimize the environmental burden of the Group's operations as much as is economically and technically feasible. The basis of this work is the Environment, Health, Safety and Quality (EHSQ) Policy. This policy was renewed in July 2012 by the CEO according to feedback from internal units and customers.

All Outokumpu's production sites employ either Environmental Management Systems (EMS) or risk-based management systems, which



The use of steel in the modern society minimizes emissions by creating efficiency in e.g. transport, construction, industries and energy production.

help in avoiding spills and accidents that could be harmful to humans or to the environment. All these Group systems operate in accordance with the Group EHSQ policy and ISO 14 001, the international standard for environmental management systems. Typically energy efficiency is integrated into environmental management system, although many of Group's sites also have certified ISO 50 001 standards for energy efficiency. Additionally sites comply with the ISO 9 001 quality standard, Outokumpu production sites also have safety management system in accordance with Outokumpu's Minimum Requirements for Occupational Safety Management. Some sites are also certified according to the OHSAS (ISO) 18 001 occupational safety standard.

The EHSQ Group perspective is aligned with the Group's management process and annual planning. Outokumpu's aim is also to harmonize and integrate internal EHSQ management systems as much as possible and is reasonable. E.g. EMEA operations in Finland and the Netherlands operate under integrated environmental and quality certifications.

Operational efficiency of Outokumpu's EHSQ and energy management systems and certification is monitored using both internal and external audits and ensured by co-operating with certification bodies. The number of non-conformities and corrective actions in EHSQ and energy management systems found by external auditors in our units are regularly monitored. In 2013, these non-conformities were typically minor and corrective actions were made as soon as possible. The Group also provides the relevant authorities with reports on Outokumpu's operations in all the countries in which we operate.

Outokumpu has a long tradition of internally steering environmental performance: the first Group-wide internal Environmental Committee was established in 1969. At the Group level, together with new business units from Inoxum, this activity continued in 2013 under the name Outokumpu Environmental Network, which meets regularly each quarter to manage and steer environmental operations and share best practices. It also has clear responsibilities and mandates according to the internal EHSQ Manual. A similar network was established to coordinate the European CO₂ Emission Trading. The EHSQ Group perspective is aligned with the Group's management process and annual planning. During 2013 our special challenge was to integrate the former Inoxum production sites into internal reporting, and the Energy & Environment Reporting system (EER) and to implement common environmental data reporting based on GRI guidelines.

Information on life-cycles and footprints demands reliable data

Stainless steel's very low environmental impact during its use, its durability and minimal maintenance requirements are widely recognized. And, at the end of their life cycle, stainless steel products are also fully recyclable. Outokumpu's aim is to improve levels of sustainability at each phase of stainless steel products' life-cycle, from production through to reuse, and to secure a sustainable supply chain all the way from suppliers of recycled steel to the production of stainless steel products.

Many applications that employ stainless steel already have a beneficial impact by reducing the total environmental burden exerted by human society. On a global scale, current trends towards achieving sustainability and reducing the extent of climate change are strong.

Environmental management has to be able to answer both these chal-

lenges and needs for sustainable products and solutions. During 2013, Outokumpu focused increased attention on life-cycle-oriented environmental management. The importance of life-cycle data, both for internal use in highlighting areas where improvements are required and for external purposes in communications with customers and other stakeholders, has already been recognized.

As a sector leader Outokumpu continued to publish life-cycle inventory data in own Environmental Product Declarations (EPDs) for Outokumpu's main stainless steel products. These are public documents which describe the main environmental effects and energy needs of the Group's stainless steel grades throughout their supply chain. In 2013 a new Safety Information Sheet of our products and EPDs for long products were published. We started a new project to gather similar data and make an EPD for our long products and re-bar. Also the update of existing EPDs according to the new company production data including former Inoxum sites started. New life-cycle inventory (LCI) data for ferrochromium products were updated in 2012.

In 2013 "Outokumpu Sustainability Label" and "Info Box" for products and offering process was completed as a pilot project. Statement on recycled content over 80% for our products against standard EN ISO 14021:2011 was made by KPMG. Based on the externally verified method of calculation we have made statement of recycled content a standard packaging wraps item.



In the new Outokumpu, our next challenging task is to collect and combine LCI data from the former Inoxum units for new declarations. The availability of robust and verified data is the starting point for managing sustainability throughout a product's life-cycle. Outokumpu's environmental and energy reporting, data management and analysis are supported by an Energy & Environment Reporting (EER) system which provides internal reporting and analysis tools for all the Group's production sites.

Emerging legislation and public initiatives

One element in operational environmental management is maintaining an awareness of emerging legislation. Outokumpu continuously monitors and evaluates legislative initiatives and evaluates their impact on the Group's operations. These are discussed regularly in internal Environmental Network meetings. Outokumpu also participates in communicating the effects of emerging legislation and aims to supply decision makers with both industry-specific and expert information. Emerging legislation has also been identified as a sustainability issue of material importance to the Group. During 2013, we identified the main legislative initiatives and their probable financial impact; both these activities and impacts have been integrated into the Group's risk management processes and Group EHS experts continue to communicate and gather data in legislative issues together with industrial organizations.

The main new or upcoming items of legislation which have been identified include: implementation of the Industrial Emissions Directive in the European Union together with binding Best Available Techniques (BAT) requirements; the renewed EU Climate and Energy package and EU Emissions Trading rules and similar initiatives in the US and China; new European legislation related to chemicals and product safety especially in Europe; the EU's initiatives on air quality policy and national emissions ceilings (the EU Air Policy Review Package); the International Maritime Organization's decision on the sulphur content of marine fuels and the EU Sulphur Directive, effective as of 2015, as well as national energy, waste and other environmental taxations and water and air quality targets in our main production countries.

The EU classification of the metal nickel as a suspect carcinogen is a concern for austenitic stainless steel business. This non-scientific classification as a criterion to exclude substances from use is included in the EU Ecolabel Regulation. The derogation is possible and already approved for certain product groups (mobile phones, laptops/computers) but needs intensive communication. The impact of all these initiatives on Outokumpu's operations is analyzed as part of the Group's annual environmental risk rating process.

The follow-up of site environmental permit status and legal compliance is a routine in the quarterly internal Environmental Network meetings. In 2013, the Environmental Network decided to organize environmental status audits at every production site, not only to ensure the reported compliance and data but also to map improvements and the best practice transfer possibilities. This was done Group-wide and results were good. The sites generally comply well with permit requirements. Audit targets were achieved and now the environmental status of each production site is well known and comparable. Similar audits will be done within every five years at production sites.

During 2013, many of production sites got new environmental permits or updates. E.g. new air permit was issued for Wildwood, FL, US. Tornio, Finland got a permit for the construction of a fuel storage field and to fill and build a former water area. Avesta is waiting for e.g. final permit conditions for the acid regeneration plant. As an action to reduce impacts of the upcoming sulphur emission regulation Outokumpu is participating the liquid natural gas (LNG) terminal project in Tornio harbor, for which Environmental Impact Assessment was done in 2013. Krefeld started the first steps in legal environmental procedures to close the melt shop.

The environmental permit of the Tornio site has been appealed by the Swedish authorities despite the fact that permit conditions related to emissions of mercury, sulphur dioxide and nitrogen oxides were strict. The decision is expected to come in 2014. However, this process did not affect on daily processes or the ramp-up of ferrochrome production. The melt shop in Sheffield, the UK, continued the new permitting process by making BAT gap analyses in 2013. At some European sites, risk assessment updates were done regarding the EU Seveso Directive.

Despite the binding EU directive and starting of new Emission Trading period 2013–2020, the EU Commission and authorities did not allocate the final amounts of Emissions Allowances during 2013 for the most European industry and manufacturing units. This delay is not acceptable and was caused by the authorities and delays in EU Commission's actions. However, our operations under the EU Emissions Trading Scheme (ETS) will continue to receive free emissions allowances allocated according to efficiency-based benchmarks and historical activity. The coming allocation is foreseen to be sufficient or slightly short of the estimated need for our operations during the 2014.

Environmental goals and results

Target-setting is part of our continual improvement ideology and included in environmental and energy management systems. Outokumpu sets both Group-wide and site-level environmental targets. Group-wide targets are common targets that affect most Outokumpu sites. Targets at production sites are more specific.

Annual routines at all Outokumpu production locations include the setting and monitoring of independent environmental targets. These processes are built into the Group's environmental management systems and key targets are also set at Group level. Having concrete, measurable targets for our operations is a way of focusing attention on specific environmental and energy aspects throughout Outokumpu.

Outokumpu is committed to the long-term target of reducing the Group's carbon emissions profile (indirect and direct emissions) by 20% per tonne produced by 2020. The setting of this challenging target is a clear demonstration of Outokumpu's desire to improve the Group's energy efficiency, to contribute to reducing global emissions of carbon dioxide, and to participate in the transformation to a low-carbon society.

As with almost all corporate programs, environmental target setting and associated long-term goals will naturally be affected by the combination of operations with Inoxum. The baseline for long-term targets was kept the same, the 2007–2009 period. Progress and reported 2013 results include all current production units and program. We have retained our way of working in which setting ambitious targets is part of our culture.

Environmental goals and targets

Group-wide goals for 2014

- » No significant environmental incidents.
- » Climate change: Reduction of emissions in line with Outokumpu's long-term target of achieving a 20% reduction in direct and indirect CO₂ emissions by 2020, against the program baseline 2007–2009. Annual progress of this target is followed as an internal quarterly KPI, the target for 2014 is split into separate energy efficiency and CO₂ target.
 - Energy efficiency: A further reduction of 1% in energy consumption per tonne of stainless steel processed (with 2007–2009 as the base period).
 - Direct CO₂ emissions from production operations reduced by 1% per tonne of stainless steel processed (with 2007–2009 as the base period).
- » Increasing the utilization of recycled input (recycled and recovered steels and alloys) by 1% per tonne of crude stainless steel.
- » Materials efficiency: Further reduction in the amount of waste land-filled per tonne produced.

Site-specific goals for 2014

- » Kemi mine: Reuse over 250 000 tonnes of lumpy rock and side rock from the Kemi concentrating plant to the underground mine.
- » Avesta: Increase energy efficiency by 2% per processed tonne.
- » Sheffield melt shop: Increase material efficiency by reducing waste landfilled 2% per produced tonne.
- » San Luis Potosí: Reduce fresh water consumption to 1,50 m³/tonne processed and reduce waste to landfill below 74 kg/tonne processed.
- » Calvert: Develop solution for on-site melt shop dusts recovery process.

Group-wide results 2013

Based on the outcome of Group-wide targets for 2013, environmental work once again yielded great results.

- » No significant environmental incidents: The target was achieved of no significant environmental incidents involving Outokumpu operations during 2013. This demonstrates the excellent standards maintained in our operations.
- » Climate change: Reduction of emissions was in line with Outokumpu's long-term target of achieving a 20% reduction in direct and indirect CO₂ emissions by 2020, against the program baseline 2007–2009. The Group's total carbon profile per tonne of steel produced was reduced by some 6.5% compared to baseline figures. Program baseline years were recalculated, and the historical data of the former Inoxum units was combined with the old Outokumpu baseline. The main contributors to this achievement were improved energy efficiency, lower specific emissions and sourcing less carbon-intensive electricity as well as low-emission transports.
- » Energy efficiency: The target of achieving a further reduction of 1% in energy consumption per tonne of stainless steel processed (with 2007–2009 as the base period) was achieved. Energy efficiency improved by more than 2% compared to 2012. Total cumulative improvement achieved during Group's low carbon program in energy efficiency against the program baseline was 10%, equaling some 813 GWh annually.
- » Materials efficiency: Further reduction in the amount of waste land-filled per produced tonne of stainless steel produced. Material efficiency was improved against the baseline, and we especially managed to utilize higher share of steel-making slag.

Site-specific results 2013

- » Kemi mine: Reuse of 500 000 tonnes of barren rock and 2 500 tonnes of fly ash in 2013. The target for fly ash utilization was achieved and the final amount was over 4 000 tonnes. The target for reusing rock at mine was not achieved. The result was 175 633 tonnes.
- » Tornio: Operational use rate of air-emission reduction equipment at processes over 99% was not achieved, there were eight dates when operational level was below 99%.
- » Calvert: Concept for on-site briquetting solution is ready, enabling recycling of rolling, annealing and pickling side streams directly on the site, without external treatment.
- » Avesta: Reduction of direct process-related CO₂ emissions by 9% against 2012. This target was achieved, the overall reduction was 9.4%.
- » Degerfors: Improvement of energy efficiency according to long-term target, 7% against 2012.

Materials efficiency

Outokumpu's ultimate target is zero-waste stainless steel production. Materials which result from the Group's production activities are studied to find ways in which they can be fully recycled, reused or sold as by-products.

In general terms, all of Outokumpu manufacturing processes are developed in ways that allow valuable metal content to be retrieved from any resulting material streams. Outokumpu's strategy is to improve production processes through R&D projects, continuous improvement tools like business excellence projects or by research programs which are often carried out together with external partners like universities or technology companies.

Outokumpu's aims are two-fold when improving the Group's material efficiency. The first is minimizing the initial use of virgin materials, either by increasing the input of recycled materials or by overall material requirements in production. The second aim is reduction of the quantities of waste sent to landfill after processes. By paying special attention to waste management and segregation techniques, many waste fractions resulting from production operations are now recycled and the amounts of waste sent to landfill have consequently been reduced at many Group sites.

The recycling of waste materials is a priority

Slag, dust, scales and other production-related material streams are unavoidable to a certain extent in steel processing. These material streams also contain valuable metals and recovery of these metals reduces landfilling of waste and makes sense in both ecological and economical terms. Dust and scales collected from stainless steel manufacturing operations are considered by Outokumpu to be significant waste streams. Wherever practical, these waste materials are collected and recycled to recover the valuable alloying elements they contain – these include nickel, chromium and molybdenum. Considerable research and development effort has been invested by Outokumpu in methods of recovering and re-using these metals as they can then be used as substitutes for virgin raw materials in Group processes.

Recovering and re-using valuable metals from side streams in practice

One example of sustainable operating practices used to minimize emissions into the environment is our efficient filtering techniques. We collect more than 99% of the dust generated by Outokumpu's steel production operations. Dust generated by the company's melt shops is recycled, with collected dust fractions that have the highest metal content being used without further treatment and the remainder passing through a metal-recovery process. When necessary, specialist recovery techniques are employed.

In the UK, the in-house metal-recovery facility is located on site and uses direct-current electric-arc melting to recover alloying metals such as chromium and nickel. Other Outokumpu residues requiring treatment are transported to external facilities located at Sweden, France and the USA, close to our melting operations. The same facility is also used to recycle metal oxide residue material recovered from the Avesta acid-regeneration plant in Sweden.

For example, in Outokumpu's North American production facilities, mill scale, shot dust and other metallic residues are all sent off site for re-melting. Refractory elements from furnaces are recycled with any recoverable metals being first reclaimed before the refractory is crushed and utilized as aggregate in concrete. General waste from offices and canteens is collected and sent off site to be converted to electricity via waste-to-energy plants. From an environmental perspective, this sustainable waste-disposal solution is superior to landfill as it is a source of clean energy, conserves land and also lowers the risk of groundwater contamination. Other materials such as old electrical materials and light bulbs are also recycled off site.

Improving waste handling

Waste from Outokumpu production units is sent to appropriate treatment facilities or to landfill sites licensed to accept such materials. Both hazardous and non-hazardous wastes are involved, and pre-treatment of the waste material is completed whenever this is required. Hazardous wastes generated by the Group's operations in 2013 totaled 145 609 tonnes (including all utilized waste streams labelled as hazardous, such as dust collected and recovered and recycled on site due to valuable metal content). Of this amount, 48 231 tonnes was exported from the country of origin to be treated and its metal content to be recovered. All such materials are treated, reused or disposed of in accordance with current legislation and best practices. Hazardous waste consisting of oily wastes, acid regeneration and hydroxide sludge generated by the Group's operations in 2013 totaled 39 763 tonnes. All such materials are treated, reused or disposed of in accordance with current legislation and best practices.

Steel slag transformed into by-products

In stainless steel making, slag is essential production material; it is also by far the biggest material side stream from operations. Outokumpu has invested more than EUR 10 million in developing slag-based products during the last decade. On site we also have external contractors who have invested significant amounts to be able to process our slags according to Outokumpu quality requirements.

The resulting products are employed in construction projects and used for neutralization purposes in industrial applications. In road construction, for example, slag products can replace virgin materials such as crushed stone aggregate.

By products utilization is standard operating procedures at our melt shops

For example, in northern Finland, where frost resistance is a very important property of road foundations, the technical performance offered by slag-based materials is actually better than that of natural alternatives. Since the 1970s, all ferrochromium slag from Outokumpu operations in Finland has been sold for road construction purposes, typically some 300 000 tonnes annually.

In 2013, 271 000 tonnes of steel slag was used for construction projects: this equals some 90% of the total amount of slags. In 2013, all steel slag was CE-marked as aggregate products from the Tornio facility.

At the Outokumpu Nirosta melt shops in Germany, almost all (over 95%) of the slag was used for construction purposes as earlier, e.g. for landfill ceilings and certain other applications.

The Calvert facility in North America has commissioned a slag processing plant to process this material for metal recovery.

Some slag from the AOD converter at Avesta has been used to make concrete products such as 'mega blocks'. These blocks are easily formed into walls for storage and segregation and have been used both internally and externally.

Special local waste reduction program

At the Sheffield melt shop in the UK, a material efficiency program has been running now for six years. Over this period, two leading schemes have allowed the amounts of waste sent to landfill to be significantly reduced. The first of these uses processed slag as a replacement for virgin aggregate. In 2013, over 90% of the slag produced in the UK was used in road construction. When used in an asphalt mix, slag offers increased grip values, a decrease in rut formation, reduced occurrence of aquaplaning and improved resistance to abrasion. Secondly, waste volumes have been reduced by crushing refractory bricks no longer suitable for use in making steel to produce a substitute for lime. To further

reduce the volume of waste sent to landfill, the Sheffield, UK operations have been working with Harsco to commission a dry material picking line to sort fine materials such as slag and refractories to increase metal recovery and divert recyclable materials away from landfill. This has allowed the UK facility to reduce the waste to landfill even more during 2012 and 2013. Compared to the situation in 2006, the total amount of waste sent to landfill in 2013 was down by two thirds. Development work is continuing, with the aim of eventually achieving the complete utilization of all by-products and waste materials produced by Outokumpu.

Improved waste utilization and less landfill waste requires knowledge

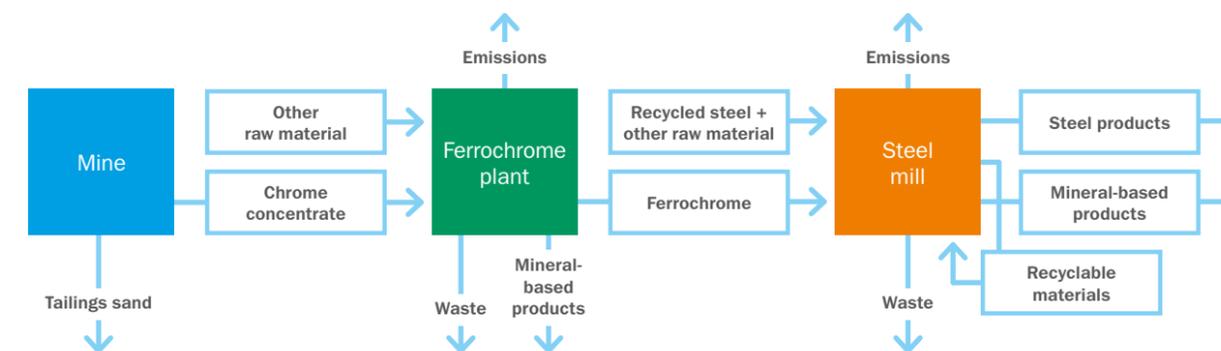
Investing in research projects

Almost all significant waste streams resulting from Outokumpu's production processes are studied with the aim of reducing their environmental impact and eventually diverting all streams from landfill. Environment-related research projects during 2013 included:

- » The treatment process of steel slag has been modified in Tornio and the metal yield was improved during 2013.
- » The Wildwood site, FL, US, is working on a process improvement in the pickling shop to eliminate or reduce the need for sand blasting certain steel grades. This will create a cost savings and reduce the landfill burden.

- » In the UK trials to dry and melt the filter press cake material from ASR acid neutralization in the SMACC EAF are on-going.
- » Steel slag as a raw material in concrete and for use in backfilling mine workings.
- » Tests to evaluate fine steel slag as a material for neutralizing agent.
- » Pelletizing slags and ashes into liming pellets for the forestry purposes.
- » Developing a method of manufacturing briquettes in an electric-arc furnace to recover metals from internal waste streams.
- » Use of shredded car tyres in steel making. The project was conducted in 2013. Its aim was to investigate whether used tyres can replace virgin reductants in electric arc furnaces.
- » Closure of tailings sand ponds at the Kemi mine with innovative structures made from a variety of residuals from a pulp and paper mill, a power plant and the ferrochrome plant (for example gas cleaning sludge). Pilot-scale structures were built in 2012 and the project is continuing.
- » Two major projects concerning the metal recovery of slag. For stainless steel the project is ready and the metal recovery rate of slag treatment process was increased significantly. For ferrochromium slag treatment the project is still on-going and it will continue in 2014.
- » Studies in German facilities to increase the recovery rate of nickel from waste water neutralization sludge. The aim of this project "RECONI" is to improve the recovery rate of nickel out of neutralization sludge to >90%.

Material flow in the Kemi-Tornio area



Material balance

Materials used, tonnes	2013	2012	2011
Recycled steel	2 111 093	2 328 984	2 099 568
Recovered metals	148 329	130 780	159 517
Ferrocchrome	434 191	456 683	479 572
Nickel alloys	202 118	210 041	210 086
Other alloys	122 836	126 212	130 607
Additives, tonnes			
Slag formers	384 028	376 967	400 177
Melt shop process gases	313 804	308 578	314 391
Pickling acids bought	37 703	31 249	33 884
Pollution prevention materials	46 107	45 363	44 930
Packaging materials used for final products	20 498	20 237	20 088
Energy			
Electricity, GWh	4 715	3 940	4 018
Propane, GWh	1 015	1 151	1 147
Carbon monoxide gas, GWh	541	342	397
Natural Gas, GWh	1 705	1 844	1 408
Diesel, light and heavy fuel oil, other GWh	155	204	221
Output, tonnes			
Steel	2 598 006	2 686 262	2 804 877
Emissions to air, tonnes			
Carbon dioxide [*]	1 274 515	1 083 978	1 102 434
Nitrogen oxides	2 634	2 362	2 229
Sulphur oxides	348	446	382
Dust	447	524	463
Ozone-depleting substances	0	0	0
Carbon dioxide per tonne of steel	0.49	0.40	0.39
Emissions to water, tonnes			
Metals	44	50	52
Nitrates	1 810	1 662	1 589
Hazardous waste, tonnes			
Oily sludge to the treatment	16 582	18 901	18 299
Hydroxide sludge landfilled	73 639	66 280	89 863
Steel making dust to recovery	57 274	48 597	52 294
Wastes and by-products, tonnes			
Steel Slag, total	906 143	821 086	844 417
Slag utilized	735 087	586 321	627 492
Slags utilization rate (recovery, reuse, recycling)	81.1%	71.4%	74.3%

*Other Green House Gas are not relevant to Outokumpu, typically below 100 t. CO₂ eqv. annually.

Environmental data and reporting for 2013 covers Outokumpu's stainless steel, ferrocchrome and mining operations in the continuing operations of the combined company of Outokumpu and Inoxum. Unless otherwise stated, the environmental data for 2012 and 2011 has been restated to reflect Outokumpu's continuing operations.

Energy efficiency

The steel industry is energy intensive and Outokumpu's steelmaking and rolling processes are no exception. Achieving the highest possible level of energy efficiency is very important for the Group.

Outokumpu's aim is to minimize total energy usage and the related environmental impact. Even though significant amounts of energy are used in its production, stainless steel is an enabler for more energy-efficient solutions that save energy during the use phase. Steel grades whose production consumes more energy than others can sometimes be the most efficient solution when viewed from a life-cycle perspective. Improvements in energy efficiency are, in many cases, based on the use of stainless steel. In the energy industry, in transportation, and in building and architecture, the use of stainless steel is essential as its energy efficiency offers a way of satisfying new stricter standards and achieving society's targets. Some biofuel applications which require specific levels of corrosion resistance, for example, would not be possible in practice without the use of stainless steel.

Outokumpu manufacturing sites use a range of fuels including direct energy sources such as natural gas, propane, heavy fuel oil and electricity. Energy use by the Group totaled 29 million GJ (8.1 million megawatt hours) in 2013 of which electricity consumption totaled 16.9 million GJ (4.7 million megawatt hours). Total energy consumption increased by 8%, compared to the previous year of the combined entities of old Outokumpu and Inoxum, due to the ferrocchrome expansion. Total annual energy consumption by Outokumpu is approximately equivalent to the amount of energy consumed by 245 000 Scandinavian households. The electricity consumption compares to about 35% of the annual output of a modern 1 600 MW nuclear power plant.

Energy used 2013

GWh	Electricity	Fuel energy	Total
EMEA	3 457	2 084	5 541
Specialty Stainless	664	659	1 323
Americas	502	444	946
Other	92	229	321
Total	4 715	3 416	8 131

Outokumpu's approach to energy efficiency is long-term and the target is continuous improvement. Energy efficiency is a component in the environmental management systems at Group mills. Major Outokumpu production sites also have long-term, prioritized energy efficiency investment plans. In overall terms, the largest energy-saving potential lies in the recovery of waste heat, improved process integration and improved efficiency in using raw materials.

E.g. in Degerfors, Sweden, investments of new oxygen plant and new cooling water capacity (6.5 million euros) for new batch furnaces were taken into use. Long Product unit ASR in the UK installed a new mill water cooling tower (250 000 euros) and at the melt shop in Sheffield, the UK, the new EAF transformer regulator and control system was installed (2 million euros). All these investments will reduce energy use.

Large, energy-specific investments are, however, not the only way of improving energy efficiency within the Group. The systematic monitoring and analysis of energy consumption plays a very important role, as does life-cycle analysis when purchases of new electrical equipment are being considered. Outokumpu provides its production personnel with training in energy efficiency.

To meet long-term targets for improvements in energy efficiency, Outokumpu maps energy efficiency initiatives and investment proposals in order to quantify their improvement potential and any associated costs. This mapping process supports the optimization of energy efficiency investments at Group level, the original aim was a 5% improvement in Outokumpu's energy efficiency by 2020. This target was achieved already during 2013. The process of mapping and identifying potentials is continuing in 2014. Our aim is to combine business-level programs and proceed with the Group-level program sharing best practices and implementing projects harvesting the most feasible identified potentials.

Improvements in energy efficiency achieved by Outokumpu during 2007–2013 totaled 10%, equivalent to annual savings of some 813 GWh. The proportion of low-carbon electricity obtained from renewables and nuclear power was 72%. Read more about Outokumpu's investments on p. 33.

Origin of electricity 2013

%	
38	Renewable sources
34	Nuclear
28	Fossiles and turf

Sustainable power solutions

Outokumpu's Energy function is responsible for the Group's energy strategy and procurement of the electrical energy employed in Outokumpu's operations. The primary objective is to secure predictable, competitive and stable prices for the Group's future power supply. Other important tasks carried out by the Energy function include the management and optimization of Outokumpu's physical energy portfolio and energy-production assets, participating in new low-carbon energy projects, promoting low-carbon fuel energy sources, and providing support for Outokumpu companies in their energy-related activities

Price of electricity

In 2013 the average system price of electricity in Nord Pool, the Nordic Power Exchange, was 38.1 euros per MWh. The strong hydrological situation and lower consumption kept power prices at low levels and the monthly average system price in July was the lowest monthly price since 2000. During the third quarter, the difference between the system price and the price in Finland was very large. Primarily because of the weak hydrological situation and cold weather, market prices in the first quarter were at high levels. During the year, the improved hydrological situation, reduced fuel and EU prices and a mild autumn brought power prices to lower levels.

Outokumpu's power procurement is executed using a long-term procurement strategy, in which the Group's aim is to achieve predictable, competitive and stable prices for electricity. Outokumpu's electrical power portfolio is managed by engaging in trading activities in the Nordic power market, through bilateral long-term supply agreements with power utilities, and by making investments in low-carbon power-generation capacity.

Nordic daily spot prices 2013



Source: Nord Pool Spot AS, www.nordpoolspot.com.

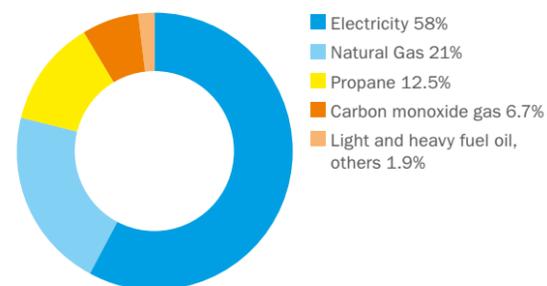
Outokumpu participates in low-carbon electricity production

Outokumpu's aim is to have access to additional low-carbon power production sources in the future. To achieve this, the Group participates in new power plant projects and by entering into agreements with parties in the power market. By participating in new power plant projects, Outokumpu can also promote competition in Nordic power markets and contribute to adequate power production capacity being constructed in the future.

Nuclear power

Outokumpu has a minor 0.3% share in the Olkiluoto 3 nuclear power plant project by Teollisuuden Voima Oyj (TVO). Construction of the power plant in Finland is currently ongoing. In addition, Outokumpu has a minor 0.7% share in the TVO's Olkiluoto 4 project. Outokumpu has a 12.5% share in the Fennovoima nuclear project. In 2013, Fennovoima selected

Energy sources in 2013



Rosatom Overseas CJSC as a power plant supplier. According to the plans, infrastructure work at the site begins in 2015 and is expected to last approximately two to three years. The construction of the plant would begin after the infrastructure work and the power plant would start commercial operations in 2024.

Hydropower

Since 2005, Outokumpu has had a 104 MW share of Norwegian hydropower capacity in Rana, Norway through a long-term leasing agreement which is valid until 2020. In 2013, Outokumpu's consumption of electricity from renewable hydropower sources totaled approximately 440 GWh.

Wind power

Outokumpu is a minority shareholder in Rajakiiri Oy, a wind power company. Rajakiiri installed eight shoreline wind turbines with a total capacity of 28.8 MW in Tornio in 2010, and commercial production of electricity started at the end of that year. The technical availability of the wind turbines has been excellent during their first years of operation.

In 2013, Rajakiiri continued a feasibility study including safety inspections and applications for permits to expand the current wind power facility by 4–5 new turbines located close to the ones already operating in Tornio. The related investment decision will be made in 2014 after the feasibility and permitting processes have been carried out. Rajakiiri also has plans for an offshore wind farm and some potential new onshore sites suitable for new wind power installations.

Combined Heat and Power

Outokumpu has a minority stake in a Combined Heat and Power (CHP) plant in Tornio. This plant delivers heat to the production facilities in Tornio, and a proportion of the fuel used is carbon monoxide gas created as a by-product of the ferrochrome production process. The CHP plant has also acquired a local heating business in Tornio. This acquisition will lead to better optimization of the CHP plant, improvements in energy efficiency and a reduction in the level of CO₂ emissions in the Tornio-Haparanda region. Read more about energy and emissions trading on p. 22.

Tornio Manga LNG project

In 2013, Outokumpu and Ruukki Metals Oy, the energy company EPV Energy Ltd and the gas company Gasum Oy agreed on a project to utilize liquefied natural gas (LNG) in industrial processes, energy production and shipping. The project development company Manga LNG Oy was established in late 2013 to prepare the contracts needed for the construction of an LNG terminal, gas procurement and logistics. LNG can replace fossil fuels in industrial use and energy production and substantially reduces particle, NO_x, SO_x and CO₂ emissions compared to current levels.

According to the plan, reception, unloading and bunkering facilities, an LNG vaporising facility and one 50 000 m³ storage tank will be constructed at the terminal, located in the harbor area in Outokumpu's industrial site in Röyttä, Tornio. For gas deliveries, a pipeline will be built to the Röyttä industrial site. In addition, a truck loading facility for LNG trucks will be built. From the Tornio terminal, the LNG will be delivered by trucks or railroad to customer terminals and consumption destinations in Northern Finland and Sweden. The investment decision will be made during 2014. The building phase of the terminal is 2014–2017, and LNG deliveries will commence by 2018.

The local water is used as own renewable energy source in Dahlerbrück, Germany. Outokumpu Dahlerbrück site owns a small hydroelectric power plant which was built in 1920 and is protected due to its cultural historical value. It has two turbines with a capacity of 200 kW and 110 kW. The power generation is dependent on the water level of the River Volme. The site gets 10% of its electricity from the plant. The power plant was renewed three years ago.

Voluntary energy efficiency agreements

Outokumpu has participated in voluntary national energy efficiency agreements in Finland, Sweden and the UK for many years. The Tornio site joined the Finnish program at the beginning of the 1990s. Energy savings in electricity, heat and fuel achieved during 2013 totaled 1 299 GWh. To ensure that systematic improvements in energy efficiency continue to be achieved, Outokumpu sites in Finland signed new energy-efficiency agreements in December 2007 covering the 2008–2016 period. For example, the Group's Tornio operations decided in 2011 to align their internal targets and action programs in an agreement aimed at achieving annual savings of 150 GWh by 2016.

In Sweden, Outokumpu is also participating in the second round of the PFE (Programmet för energieffektivisering i energi intensiv industri) agreement from 2009 to 2014. The target in this second period is to achieve annual savings in electricity consumption of 11 GWh. In the first round, which ended in the summer of 2009, annual savings of 8 GWh were achieved. In connection with energy issues, Outokumpu usually works closely with national organizations – with Motiva in Finland and Jernkontoret forum in Sweden.

At Outokumpu Germany sites certification for the ISO 50 001 energy efficiency management system has been carried out during 2012. In relation to this voluntary certification all these sites now have routines for annual energy efficiency work, including monitoring progress, implementing and identifying improvement possibilities.



Climate change

Outokumpu's energy and low-carbon program

In the past ten years, Outokumpu has reduced significantly the Group's direct carbon dioxide (CO₂) emissions per tonne of stainless steel produced. Outokumpu targets to further reduce the Group's specific carbon emission profile in stainless steel production by 2020, as announced in the Group's energy and low-carbon program in 2010. When assessing and measuring the Group's carbon profile, we utilize a method of calculation which focuses on factors that Outokumpu can manage and control.

The targets set in Outokumpu's energy and low-carbon program highlight not only specific reductions but also the Group's production efficiency, as emissions are calculated per tonne of stainless steel produced. These targets connect our materials and energy efficiency and supply chain management to the Group's business targets. The figure for monitoring progress is a three-year moving average that is compared to baseline figures from the 2007–2009 period. The targets of the energy and low-carbon program represent optimal Group-wide environmental objectives for both Outokumpu and combating climate change. They also support the Group's strategic goals and their achievement is supported by different energy and quality programs. As the targets are both quantitative and a clear demonstration of our long-term commitment in this area, they encourage continuous improvement.

In terms of current capacity and production after the Inoxum acquisition, the annual reduction in CO₂ emissions being targeted is approximately 450 000 tonnes by 2020, a total reduction of 3 000 000 tonnes over the 2010–2020 program period. During 2013, Outokumpu recalculated the target baseline and emission reductions for the new combined group. Combining with Inoxum makes our long-term climate target very challenging; nevertheless we are committed to achieving the overall reductions.

Our actions and the results achieved

Primary actions included in the program consist of making further improvements in energy efficiency, increasing the proportion of low-carbon electricity and targeting efficiency improvements through optimal levels of production. An internal air-travel compensation scheme has been implemented for business travel, and sustainable aspects are gradually being integrated into our logistics and transportation solutions. These actions involve Outokumpu operations in all locations and business areas.

Outokumpu's carbon profile consists of direct emissions from production operations, indirect emissions from electricity consumed and the emissions resulting from the transportation of products and business travel, expressed as a quantity per tonne of stainless steel produced. After 2013, the Group's carbon profile was 6.5% lower than the program's baseline average for 2007–2009. This result is primarily due to lower specific emissions in production and improvements in energy efficiency. Also emissions from transportation were lower. On the other hand, indirect emissions from electricity consumption were somewhat higher than in the previous year.

CO₂ emissions resulting from business travel by Outokumpu personnel in 2013 totaled 4 849 tonnes (includes business air travel and company cars). To compensate for emissions resulting from business air travel in accordance with guidelines in the energy and low-carbon program that reflect such activity, an investment will be made in environmental projects that lead to emissions reductions. The level of such investments will depend on the price of emission allowances, the total number of kilometers travelled and specific emissions by air carriers. During 2013, a project in order to improve production of pressurized air and optimize air condition and cooling at Tornio was completed. These energy efficiency investments save annually over 8 000 MWh of energy. The annual reduction in CO₂ amounts to some 1 600 tonnes.

Emissions trading

Outokumpu's main production operations in terms of energy consumption and carbon emissions are located in Europe. More than 80% of the Group's direct emissions fall under the CO₂ Cap and Trade system. The European Union Emissions Trading Scheme (EU ETS) places a direct fi-

nancial cost on production emissions and the indirect costs of emissions trading are reflected through higher electricity prices. Indirect extra electricity costs for Outokumpu were during the previous EU Emission Trading period 2005–2013 some EUR 45 million per annum. These two elements raise Outokumpu's marginal production costs in relation to our global competitors. Outokumpu emphasizes the need for global regulation in efforts to transfer to low-carbon forms of society. EU Commission's decision to "set-a-side" and postpone auctioning of emission allowances during this emission trading period 2013–2020 would increase these costs further are harmful for whole European manufacturing and electricity intensive industry.

Major emissions of greenhouse gases by Group operations are twofold: direct releases of CO₂ from the company's sites as a result of combusting fossil fuels and process-related emissions from Outokumpu's steelmaking operations. Outokumpu's CO₂ emissions in 2013 totaled 1 274 515 tonnes. Outokumpu's emissions trading activities fully comply with the relevant EU laws and regulations, with agreed procedures and with the Group's trading and risk policies. Carbon dioxide emissions under the EU ETS continued to be at lower than normal levels in 2013 due to reduced levels of production, which totaled approximately 1 030 000 tonnes.

Following the Inoxum acquisition, Outokumpu had in total seven active sites (excluding Terni and VDM business units) operating under ETS from the beginning of 2013. These Outokumpu sites remain in the system. The preliminary allocation for the year 2013 is estimated to be sufficient for Group operations during 2013.

The EU Emissions Trading Scheme 2013–2020 and after

The EU Emissions Trading Scheme (ETS) continued, with the current trading period being 2013–2020 according to the decision made by the European Commission (EC) and the European Parliament. During this third emissions trading period, 2013–2020, the ETS will become a more restrictive system. Both the cap on total annual emissions in Europe and the proportion of free emissions allocations will gradually be reduced. Auctions will be the main form of issuing allowances. Outokumpu's operations under ETS will continue to receive free emissions allocations according to efficiency-based benchmarks and historical activity.

As emissions are correlated with production activity and capacity utilization rates our position in the long term is difficult to foresee. Current estimates indicate that the Group will not be short of allowances during the initial years of the trading period and that the situation within Group companies will probably vary more than before. One important issue for Outokumpu has been to qualify for a free allocation of emissions allowances during 2013–2020 by being part of an industry sector in which there is a significant risk of carbon leakage. According to an EC decision, all of Outokumpu ETS operations currently qualify. All seven Outokumpu sites covered by the emissions trading system have applied for free allocations for the upcoming trading period and are in full compliance with authority requirements.

The renewed ETS directive states that member states can compensate for CO₂-related increases in electricity prices. As Outokumpu has four electricity-intensive installations in four different EU countries, this is an important aspect. Outokumpu considers it to be an important correction mechanism for the most profound flaw in the ETS system.

The European Commission plans to set up a framework for the trading period stretching over 2020–2030 already during 2014. Direct and indirect costs of emissions trading have become an important factor in the competitiveness of European steel manufacturing. According to a recent study from the European Steel Association (EUROFER), "A Steel Roadmap for a Low carbon Europe 2050", the estimated achievable reduction potential in general is 10–20% for the European steel industry. This roadmap also concludes that steel is an answer for the climate challenge not part of the problem, this is especially true for stainless steel. By using stainless steel, the life cycle of final product can be made very efficient and steel's 100% recyclability reduces the climate burden further during subsequent life cycles.

Outokumpu views the possible consequences of climate change as a matter of serious concern and wishes to make a contribution to global efforts aimed at mitigating associated effects. Outokumpu has successfully reduced impact to climate change in form of direct and indirect emissions. Still there are future commercial challenges that the Group may face in connection with implementing measures to reduce emissions of carbon dioxide, new situations which arise as a result of climate change may also present business opportunities.

Climate change risks

The risk of climate change induced by human activity and its possible consequences has attracted increasing attention within Outokumpu in recent years. Outokumpu has established a long-term program, implementing serious actions as our response. The issue is a regular item in the Group's long-term strategic planning.

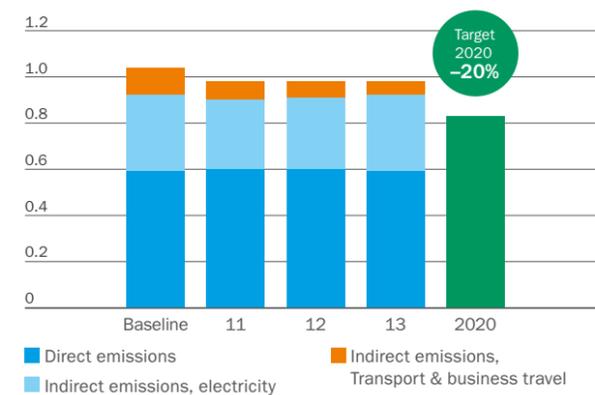
Regulatory risks

The greatest uncertainty for Outokumpu in connection with emissions-related regulatory measures stems from the EU Emissions Trading Scheme (EU ETS) and related consequences affecting Outokumpu's business. The current outcome is that the Group's European production units are at a competitive disadvantage in relation to stainless steel and ferrochrome producers located outside Europe.

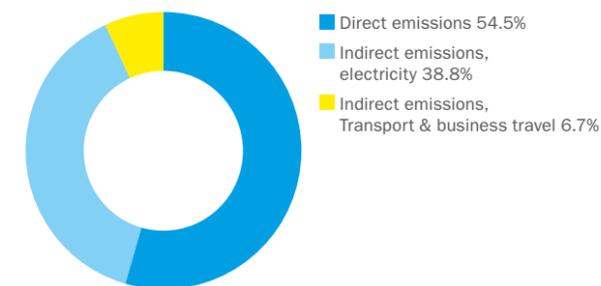
EU ETS is regional so-called "cap and trade" system that sets total cap for industrial emission. This total cap is levied through market based trading. As emissions allowances that remain unused can be traded on financial markets, the system is designed to create a financial incentive for companies to restrict their emissions of carbon dioxide. Conversely, if the level of a company's carbon dioxide emissions exceeds the rights it possesses, corresponding allowances must be purchased. Outokumpu's production sites in Finland, Germany, Sweden and the UK fall within the scope of the EU ETS scheme.

Even though Outokumpu was granted emissions allowances at no cost in the 2008–2012 trading period, the EU ETS will become a more restrictive system in the third emissions trading period (2013–2020). Both the cap on total annual emissions in Europe and the quantity of emissions allowances allocated at no cost will gradually be reduced and auctions will become the main method for obtaining such allowances. To dissuade companies who currently operate inside the EU from moving to countries where emissions reduction targets are not in place, industry sectors which feature high levels of carbon leakage will continue to receive free emissions allowances. As the iron and steel industry has been identified as one of the sectors in which the risk of carbon

Carbon profile



Carbon profile 2011–2013



leakage is high, Outokumpu sites will continue to receive free emissions allowances during the 2013–2020 period, with the amount being based on historical activity levels and efficiency-based benchmarks.

An example of realized regulatory risk are the two 2013 decisions by EU, the so-called “backloading” decision and the “cross sectoral correction factor” decision. Backloading alters the allocation and auctioning timetables and reduces the amount of allowances supplied to the markets. The cross sectoral correction factor cuts the amounts of emission allowances allocated to operators for free and increases costs of compliance.

All the Group sites affected submitted applications in the course of 2013 and fully comply with authority requirements. The delays in agreeing system definitions, international negotiations which remain unresolved and the clear risk of both extensive bureaucracy and emissions-related regulations continue to foster increased levels of uncertainty in carbon markets. Also, proposed alterations to the ETS system, such as interfering with the auctioning timetable and agreed total emission gap, decrease the trustworthiness of emission markets.

In the future, emissions reduction targets (e.g. the EU Climate and Energy package) will become more stringent and Outokumpu continues preparations for conducting the Group’s operations in a more restrictive environment in this connection. To manage related risks and prepare for expected developments connected with emissions trading, Outokumpu has an internal Emission Trading Network, which includes representatives from all Outokumpu operations affected by the system. The responsibilities of this network include providing assistance in defining Outokumpu’s emissions management strategy and securing its implementation.

Cost-related risks

From a Group perspective, identifying and controlling the cost of compliance with emissions allowance schemes is crucial. Both forecast and realized emissions as well as the allowances granted are monitored by Outokumpu on a regular basis. The Group has also taken action to reduce the costs associated with emissions regulation compliance by entering into financial arrangements such as swapping EU emissions allowances for Certified Emissions Reductions (CERs) and investing in carbon funds. During 2013 cost related risks were managed through utilizing CERs and emission reduction units (ERUs) for compliance instead of European emissions allowances (EUAs).

As production of both stainless steel and ferrochrome is energy-intensive, Outokumpu’s operations are sensitive to changes in the cost of electricity. Power companies transfer the costs associated with their own emissions allowances to the prices they charge for electricity, and marginal cost pricing means that all forms of electrical power production are therefore affected by these allowance-related costs. Even though much of the electricity purchased by Outokumpu is of the low-carbon variety, costs of this type have a negative impact on the Group’s financial performance and these effects are not mitigated by no-cost allocations of emissions allowances. Risks connected with the future cost of emissions allowances also add an element of uncertainty to the planning of new investment projects and may affect future investment decisions.

Weather-related risks

Extreme weather conditions associated with the effects of climate change could have an indirect impact on Outokumpu’s business and operations. Physical risks due to changes in the climate system and weather patterns can cause damage to property or the loss of production as a consequence of flooding, tornados or hurricanes may be exacerbated in the future. Normal measures designed to mitigate operational risk related to climate change have however already been incorporated into the Group’s risk management and related policies. Currently, Outokumpu’s production facilities, a tube mill in Florida, and melt shop and cold rolling mill in Alabama are located in areas, which are defined as “regional hotspots”. These sites are moderately exposed to severe weather and high winds either from the hurricane potential or the effects of regular severe thunderstorms and tornados common to this geographical area. The Group has general instructions and tools for implementing plans to ensure business continuity within production facilities. As a result of extreme weather conditions Mexico is also highly exposed to landslides, predominantly triggered by excessive rainfall. Theoretically, San Luis Potosí is also exposed to landslides, although to a lesser extent.

New opportunities

Even though the unpredictable consequences of climate change may be associated with significant future challenges, new business opportunities for Outokumpu may also result. The sustainable nature of stainless steel assists both the Group’s customers and society at large in constructing low-carbon solutions. Stainless steel’s remarkable physical properties make a significant contribution to achieving improved levels of efficiency in the transportation, energy, construction and manufacturing sectors, as well as in the household goods segment. Products manufactured by Outokumpu are also important in tackling global challenges such as the need for clean water supplies.

Carbon funds

In order to decrease the cost of compliance to ETS, Outokumpu has also invested in the Testing Ground Facility (TGF), a Nordic carbon fund managed by the Nordic Environmental Finance Corporation. States and companies can invest in the carbon fund, which purchases emission reduction units for its investors from projects that benefit the environment. The fund closed its operations during 2013 according to the original plan. Outokumpu still expects to receive some ERUs, which Outokumpu use for compliance instead of EUAs. In 2013, Outokumpu received 12 000 tonnes of emission reduction units from TGF (2012: 13 000 tonnes excluding former Inoxum sites). The TGF emission reduction units received will be used to cover the actual carbon dioxide emissions in 2013.

Emissions, effluents and waste

One of Outokumpu’s operating principles is to use best available techniques (BAT) to reduce emissions and minimize harmful environmental impacts which could result from the Group’s operations. In this context, BAT means the best available pollution prevention technology from both technical and economic perspectives.

Employing BAT solutions means that the latest technology will be used to keep emissions from Outokumpu’s operations at the lowest achievable level. Outokumpu continuously develops Group processes and pollution-prevention techniques to maintain high levels of emissions control also in the future. Outokumpu is also an active participant in the process of updating the reference documents (BREF) which specify related technologies, helping to set the high standards applicable within the European Union.

Efficient systems help prevent spills and instances of non-compliance

All Outokumpu’s production sites employ either Environmental Management Systems (EMS) or risk-based management systems which help avoid spills and accidents that could be harmful to humans or to the environment. All of these Group systems operate in accordance with ISO 14 001, the international standard for environmental management systems.

In 2013, emissions and discharges were generally at normal levels and in compliance with environmental permits, but some spills and instances of non-compliances did occur. Environmental compliance data for 2013 shows that there were total of 20 environmental non-compliances or breaches of permitted limits.

The main breaches were spills or occasional metal content in waste water. This type of incidents occurred at Avesta and Degerfors (Sweden), Tornio (Finland), at ASR (UK), SKS (China), Wildwood (FL, US) and in New Castle (IN US). At Tornio a total of five breaches occurred in 2013, three of them being a slight exceeding of the zinc limit value in waste waters. A comprehensive development program has been started to avoid similar breaches in the future. One breach was due to the operation ratio of dust cleaning unit and one an occasional suspended solids discharge. At the Calvert melt shop (AL US) the SO₂ emission value was above the limit value. Local air quality related issues were also reported from Krefeld, Germany. This exceeding of the ambient air limit value will cease due to the closure of the melt shop. On all these occasions, the environmental authorities were informed and no environmental damage was reported.

In 2013, the Mexinox plant had no environmental non-compliances, The Group’s SKS site in Shanghai, China has been operated since 2001 without a single permit breach, but during 2013 there was one occasional incident related to a waste water limit value.

From the year 2013 we can summarize that emissions into the air and discharges into water remained within permitted limits and the breaches that occurred were temporary, were identified and had only a minimal

impact on the environment. Outokumpu is not a party into any significant juridical or administrative proceeding concerning environmental issues, nor is it aware of any realized environmental risks that could have a material adverse effect on the corporation’s financial position.

Radioactive material detected before it entered the production process

As recycled steels are used in Outokumpu’s manufacturing process, radioactive material can enter the stainless steel production chain. While such radiation usually derives from naturally-occurring sources, the source of radiation in some cases consists of components from items of measuring equipment extensively used by heavy industry. The amounts of radioactive isotopes involved are small, with maximum quantities measured in grams, and sources of this type are normally detected before they enter the Outokumpu production process. Major Outokumpu sites prescreen recycled steel for radioactivity using special radiation monitoring equipment. During 2012 the internal guidelines for radioactivity control were updated and a harmonized revision was prepared during 2013.

In 2013, one incident which involved radioactive material entering an electric arc furnace despite the presence of alarm systems occurred at Outokumpu’s facilities in Tornio in Finland. The radioactive material concerned was identified as americium-241, an isotope employed in measurement instruments. All dust and slag from the affected melt were separated and levels of radioactivity measured, and the radioactive materials were stored separately in accordance with guidelines provided by the appropriate national authorities. The dose rate associated with the radioactive material encountered in this case was not at a level harmful to humans.

Investments in technology are reducing levels of dust emissions

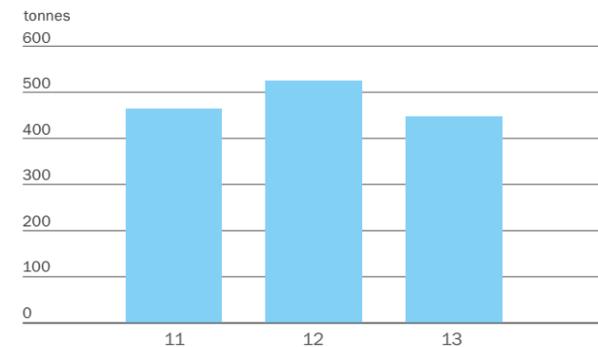
Dust of different types has traditionally formed the most significant emissions resulting from operations by the steel industry. The majority of Outokumpu’s particles emissions originate from the Group’s melt shops in Finland, Sweden, Germany and the USA. Even though total production of stainless steel has increased since 2000, levels of dust emissions from the Group’s operations have declined significantly.

At Outokumpu’s new Calvert facility in Alabama, US some USD 160 million was invested for environmental purposes of which EUR 52 million was invested to minimize airborne emissions, mainly dust. There are now several new baghouses to capture dust emissions, SCR units to reduce NO_x emissions and various scrubbers. The Calvert cold anneal pickling line (CAPL) and hot anneal pickling line (HAPL) have the newest mist eliminators/drop separators for their furnaces sections (scrubs particulates), acid scrubbers for their acid bath fumes (scrubs acids out of the air and other gases NO_x, HF, SO₂). Also, the HAPL has a mini-baghouse to filter dust in the shot blasting section.

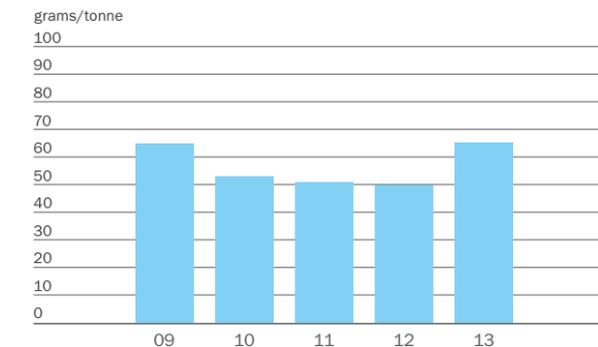
At Tornio, more than EUR 60 million was invested in environmental applications during construction of the new ferrochrome sintering and melting line that was ramped up during 2013. Most of these investments were made to prevent emissions into the air, but steps were also taken to reduce emissions into water. The largest individual investments were dust-filtering units, gas scrubbers and a new unit for handling process water. The year 2013 showed that these investments were also efficient; the emissions from the new sintering and ferrochromium plant were lower than what was expected.

In Degerfors, Sweden, during 2013 investments in a new oxygen gas plant, new water treatment plant (EUR 6.5 million) for new batch furnaces (EUR 11.3 million) and upgrading of a walking hearth furnace (EUR 1.5 million) will decrease local emissions and discharges. The Avesta plant in Sweden started a project with a consultant to optimize the production and energy use during hot rolling which will also have impact on emission decreases.

Particle emissions to air



Melting shop particle emissions



2009–2012 Outokumpu stand alone.

Dust emissions by Outokumpu in 2013 totaled 447 tonnes, 18% less than in 2012. This was mainly due to the improved operation of dust-filter unit in Tornio. Since the dust-filtering system is extremely efficient, normally catching 99% of dust emissions, even a brief malfunctioning leads to high increase in total emissions.

Strategic chromite ore – sustainable mining

The Kemi chrome mine is the only mine of its type located within the European Union. As the ore-bearing minerals are very stable and chemicals are not used in the beneficiation process, mining operations have only a minor effect on local water quality. Metal discharges from mining activities are small, and their effect is only observable as slightly elevated concentrations of nitrogen, solids, calcium and iron in water-courses. The largest emissions into the air result from the transportation of ore and waste rock, from operations in the product loading area and from piles of concentrate. All mining operations are now carried out underground after a shift from open-pit to underground operation was completed during 2005. Even though dust emissions into the air have therefore become minimal (totaling approximately less than half a tonne in 2013), the effect of particulate emissions on air quality is still monitored regularly by studying levels of suspended particulate matter. The results of the monitoring showed that the emissions situation has remained stable and that concentrations of dust in air at and around the site are low.

At the Kemi chrome mine, piles of barren rock, former open-pit mining activities and the beneficiation and clarification basins all have long-term effects on the landscape. Tailings basins are landscaped when they are full. Barren rock is used in backfilling underground workings. As the concentration processes at the mine employed are based on gravimetric separation, only water and small amounts of flocculant are used. Of the total amount of water used 95% was recycled rainwater. Noise generated by blasting operations is almost inaudible, even within the mine area. According to environmental impact assessments carried out, the only significant noise-related effects result from the increased levels of road traffic involved in transporting concentrate from the mine to the Tornio ferrochrome plant. These effects have been further mitigated by a new road close to Tornio plant that was taken into use in 2010, minimizing any potential disturbance to residential areas.

In May, there was very heavy flooding in the streams nearby the mine, causing a rise in water-levels in measuring wells. One monitoring station at the well was submerged and destroyed. Even though there was lot of water coming into the mine area and tailing ponds during a short time, no other difficulties were faced.

Reductions in emissions

Air quality is top priority

Dust emissions from Outokumpu's operations typically contain small quantities of metals (including iron, chromium and nickel), most of which are present in harmless forms. Chromium, for example, is usually found in its trivalent form and not in the hazardous hexavalent form. In recent years, the Group has supported many studies investigating the effects of metal emissions on both human health and the natural environment.

Increased levels of stainless steel production in 2013 resulted in Outokumpu's emissions of nitrogen oxides (NOx) being at a higher level (2 634 tonnes) than in 2012 (2 362 tonnes). To minimize NOx emissions, the Group's production sites in Avesta and Nyby in Sweden and Tornio in Finland have started to use the latest burner technology and

Selective Catalytic Reduction (SCR) technologies in processes. Our Shanghai SKS unit at China has started similar technology based "CLEA-NOX" project in order to minimize NOx emissions. Degerfors adjusted also operations to reduce NOx emissions according to new production volumes and permit limits.

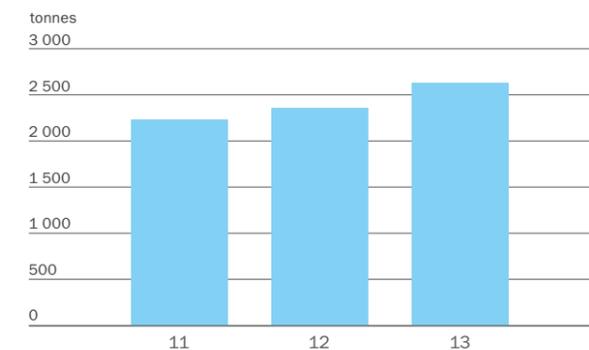
Emissions of sulfur dioxide (SO2) from the FeCr sintering plant at Tornio Finland will also be reduced. A project to utilize alkaline water in gas scrubbers is ongoing. The water being used comes either from the slag handling unit or from lime milk tanks. The new process was taken in service during the summer of 2013 and has cut annual SO2 emissions substantially.

Fugitive dusting is one environmental impact associated with outdoor slag treatment. In Tornio, Finland, a decision to invest EUR 1 million to reduce this dusting was made by our sub-contractor.

Continuous improvement in the monitoring of Outokumpu's production operations reduces risks to the environment. Particle emissions from the steel melt shop in Tornio, for example, have been monitored non-stop since the beginning of 2007. The detailed daily emissions data obtained from the monitoring system allow potential filter leakages to be rapidly identified so that immediate remedial action can be taken. The Group's new ferrochrome sintering and melting plant is also equipped with continuous dust measurement units. In a similar manner, the particle filter system in the Sheffield melt shop stops the melting process if particle emissions are too high, giving environmental protection the highest priority. All these process control measures can be seen to represent industry best practice.

Outokumpu does not utilize mercury in our production operations. Nevertheless, our main raw material – recycled steel – may sometimes contain small amounts of mercury. Our products are mercury-free: all mercury possibly coming with recycled steels is emitted in our melting process. The steel melt shops in Tornio and Avesta use continuous measurement of mercury emission levels. During 2013 the measurements have revealed some potential sources of mercury in the scrap. The overall emission was lower than in the earlier years, showing that the European mercury ban in most articles is having an effect, but with a delay

Nitrogen oxides to air



to recycled steel.

Air quality monitoring and controlling conducted at many Outokumpu production sites enable the Group to correctly assess and determine the environmental impact of production and other operations. At the Sheffield melt shop, for example, the monitoring of particle levels – PM10, PM2 and PM1 – has now been conducted for the last ten years. The results obtained show that during 2013, levels of particle emissions were below the required limits for 98% of the time with only minor deviations occurring close to plant buildings, and with no exceptions occurring outside the site boundary.

In Tornio the latest local ambient air quality study (diffuse emissions, PM10) results showed that European air quality guideline or limit values were not exceeded. The emissions concentrations measured were well below guideline and limit values. In conclusion, the Finnish Meteorological Institute stated that "the air quality in Tornio is very similar to any other small or medium-size town in Finland". During 2013 these measurements have been continued at two measurement points, one located in Sweden and the other in Finland. Both measurement points are about five kilometers away from the mill. The results (which are in full view of everyone via the internet) have so far been very similar to the previous ones. Air quality in the area is generally at a good level and the effect of Outokumpu's dust emission is hardly visible.

Energy efficiency goes hand in hand with air emission reductions

At Avesta, actions to optimize operation of the main walking beam furnace at the hot rolling mill have increased thermal efficiency by approximately 20%. The recovery of heat from furnace exhaust gases at the production sites in Tornio and Avesta also reduces Outokumpu's total energy consumption, and emissions of nitrogen oxides, CO2 and sulfur dioxide are correspondingly lower as the amounts of fuel required to generate heat are reduced. Successful implementation of a variety of energy efficiency measures has also reduced the Group's specific CO2 emissions.

In Dillenburg, Germany, the two energy efficiency projects completed in 2013 (RTL hall and air compressors) will create some 4 200 MWh natural gas and 390 MWh of electricity savings per year plus, of course, emission savings. Similarly, as part of internal saving projects at SKS in Shanghai, China, there are several energy saving projects ongoing. The new water crystallizer investment at Mexinox in San Luis Potosí, Mexico, will also decrease energy consumption a lot and CO2 emissions even by 95%. In total, a spending of EUR 6.5 million on energy improvement measures in 2006–2013 at the SMACC melt shop in Sheffield, UK, has resulted in energy savings of 6% in specific energy.

Waste water

All our waste water is treated before discharge, either at our own facilities or by the local municipal facility. In Calvert, AL, US, the investments to clean and recycle water and to reduce the waste water load totaled EUR 63 million. This consists of water treatment and acid regeneration plants and storm water drainage. The acid regeneration plant (ARP) is based on Pyromars technology and used to reclaim the waste nitric acid and hydrofluoric acid for re-use.

In Dillenburg, Germany, the planned expansion of the municipal wastewater treatment plant seems to be a cost-efficient way of arranging the de-nitrification instead of having our own treatment plant. This is why the cold rolling plant decided to finance the expansion of the municipal wastewater treatment plant (EUR 1.5 million) in the end of 2013. Investment contracts with the community will be finalized in 2014.

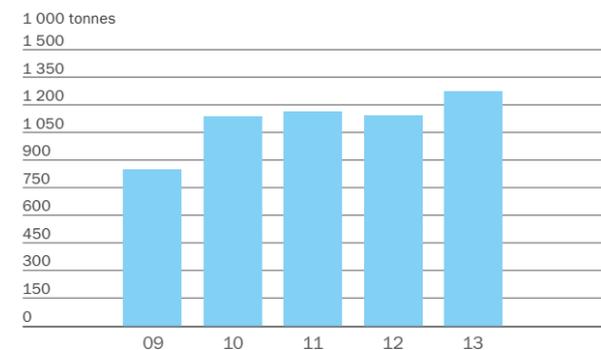
At Tornio, Finland, a large sedimentation pool for wastewater has also been taken in to use. This arrangement allows almost all suspended solids to be filtered out and reduces metal loadings drastically.

During 2013, test fishing campaigns has been done in Tornio (in the post-sedimentation pool) and in the Kemi mine tailing ponds. In both, there are healthy and numerous fish populations (pikes, perches and other typical lake fishes). The chemical analysis revealed that there is no metal accumulation in the fishes, they are healthy and breed normally.

During construction of the new ferrochrome sintering and melting plant in Tornio, the wastewater handling system was renovated and the circulation of process water is now almost totally closed. Water is circulated through cooling towers and solid material is separated in settling ponds and by using centrifuges. Only a small fraction of water used is conducted out of the circulation system, reducing metal loading on the environment.

Mexinox processes have reduced NOx emissions by utilizing scrubbers in annealing and pickling lines. The site has also decided to use natural gas in our combustion equipment to reduce NOx emissions into the air. During 2013, NOx emissions were reduced by over 24% (100.7 tonnes to 75.6) compared to the previous year 2012.

Carbon dioxide to air



Outokumpu owns and manages landfill sites at some production sites in Finland, Germany, Sweden and the UK. Operations in these locations meet stringent EU and national requirements. In addition to the actively used landfill sites, Outokumpu is taking care of some closed landfills. These sites are carefully monitored in order to be assured that the environmental impacts, for example on surrounding water, are minimal. The sites are typically also landscaped.

For example in Dillenburg, Germany, the cold rolling unit uses an off-site deposit site Aßlar for neutralization sludge, but also takes care of some liabilities of old landfills. At the Nyby site at Torshälla in Sweden, the cold rolling plant uses its own landfill and old ones are closed. In Sheffield, the partial capping of the operational landfill has helped to limit the influx of rainwater and thereby reduced the generation of landfill leachate that requires treatment prior to being removed from the landfill cell. In 2013, the closure of the old Tornio landfill was completed.

The Bochum disposal site Blücherstraße was technically closed. The new permit for Marbach disposal site in Bochum Hamme created public concerns in 2013. This was the reason why Outokumpu established a voluntary advisory committee in Marbach to share information and views with neighbors and other interest groups.

Working hard to prevent leakage and soil contamination

Some of Outokumpu's production sites have been in use by the metal industry for decades or even centuries. This increases the likelihood that some contamination exists at these sites. Typically, soil or groundwater at old production sites might be contaminated by oil or metals. Outokumpu's principle is that contamination is always treated and remediated according to current legislation and guidance from the authorities. These cases do not have significant or material effects on the Group's finance but remediation may last quite a long time. Often the main action is the pumping of contaminated groundwater for a local waste water treatment at the site.

Some soil contaminations was investigated during 2013 in Sweden at the former Avesta production site and the Nyby site. Investigative reports were submitted to the authorities. Planned remediation work was ongoing at some Group sites in 2013, e.g. in Krefeld and Dillenburg, Germany. In Benrath, Germany, groundwater is treated by an air stripper, de-ionized, de-manganized and used as production water. The groundwater remediation in Wildwood, USA, has decreased contaminants significantly. Also remediation work at the former warehouse site in Montreal, Canada continued as planned during 2013.

In Tornio, Finland, the remediation at the old landfill is completed and concentrations of metals in groundwater were reduced to levels below those required for drinking water. Also, in Dählerbrück, Germany, the remediation of groundwater has succeeded and been completed.

Water

Water is an important resource for steel making. Almost all Outokumpu production units are located in areas in which there is a lot of water available. Most of the sites are located by rivers and in areas with a lot of rain. However, the Mexinox cold rolling unit's surroundings in San Luis Potosí, Mexico, are arid and dry. There, the water source for production is ground water and its use is restricted by local environmental permits.

The Mexinox cold rolling unit uses water well below the permit limits and recycles almost all the water for production processes. Process wastewater is recycled and treated by neutralization, clarification, filtration, reverse osmosis, evaporation and crystallization. Sanitary wastewater receives flotation and disinfection treatment. Oily water is treated in a ultrafiltration process and recycled. The amount of wastewater sent to the municipal sewer outlet is only 500 m³ but the total use of water is 30 000 m³ per month. So almost all water is already recirculated at the site (the recycling rate is some 98%). Some of the remaining, treated and neutralized wastewater is conducted for irrigation of local vegetation, plants and trees.

Water recycling at Mexinox in San Luis Potosí is very efficient and the use of fresh water was under the company's own internal target for the whole year 2013, and much lower than the permit limit. To improve water recycling further an expansion of the crystallization process of the wastewater treatment plant was started. The aim is to recycle more water, to replace two old units with new electrical evaporation unit, including to improve energy efficiency and decrease CO₂ emissions by 95% from that plant.

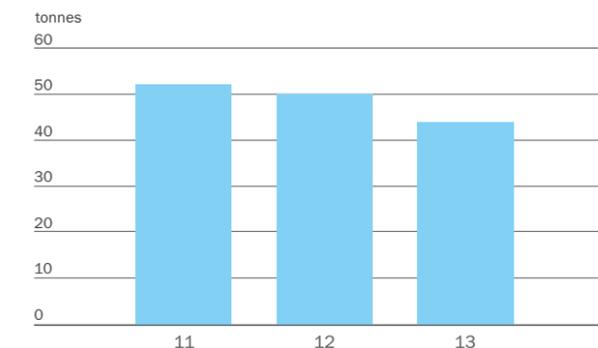
The efficient recycling of water was a principle in planning the new Calvert facility in Alabama, US. The water system there uses closed loop recirculation for cooling processes. The site reuses the industrial waters for a minimum of three cycles of concentration in systems for maximum efficiency, and of course less water usage.

In the Bochum melt shop in Germany, drinking water is used for all process purposes because natural ground or surface water is not available in the area due to large-scale underground coal mines. Due to costs in the melt shop, there is a totally closed loop in water use.

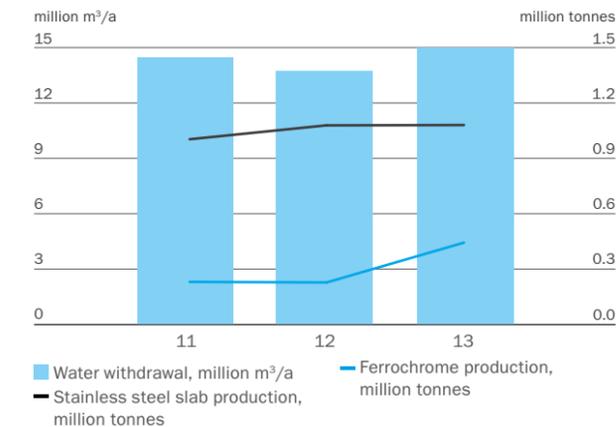
Water withdrawal and discharges

	2013	2012	2011
Water withdrawal by source			
Surface water, million m ³	32.1	29.9	30.6
Municipal water, million m ³	1.9	2.2	1.5
Groundwater, million m ³	1.5	2.1	1.7
Rainwater, million m ³	1	1.6	0.7
Water discharges by type and destination			
Cooling water out, million m ³	29.8	31.8	27.4
Waste water out, million m ³	20.2	18.7	17.4
Metal discharges to water, t	44	50	52
Nitrogen in nitrates, t	1 810	1 662	1 589

Metal discharges to water



Annual water consumption in Tornio



Biodiversity

Natural surroundings at stainless steel production sites remain unharmed.

The production of stainless steel does not employ or reserve large areas of land, or have a significant effect on biodiversity in the surrounding natural environment. Outokumpu production facilities are not located in sensitive areas such as Unesco World Heritage sites, Ramsar sites or Unesco Biosphere reserves. During recent decades, Group sites have not been found to disturb local biodiversity in any manner which is generally considered unacceptable.

Environmental impacts are regularly evaluated

None of the species included in the International Union for the Conservation of the Nature and Natural Resources (IUCN) Red List (a list which identifies and documents species most in need of conservation attention if global extinction rates are to be reduced) are known to be affected by Outokumpu's activities. Although the Group does not have any significant operations in ecologically sensitive areas, impacts on biodiversity at Outokumpu production sites are evaluated on a regular basis as part of the Group's environmental management processes.

Actions to protect the local biodiversity

At those sites in which valuable biodiversity or species are recognized, Outokumpu staff have also actively protected the nature, wildlife and animal species. For instance, a part of the Calvert production site in Alabama, US, is defined as wetland and is home to quite a wide array of wildlife. At the site it is possible to see deer, wild turkey, wild boar, fox squirrels, gopher tortoises and various snakes, even Alabama black bear. Since the gopher tortoise and Alabama black bear are threatened species here, the environmental team has worked with regulators on a voluntary basis to help trap and move gopher tortoises to safe locations and we even installed a "bear friendly" fence to allow the Alabama black bear to better travel through its natural migratory pathways.

An EU nature protection area (Natura 2000) is planned to be established on part of the company's property in Dahlerbrück, Germany. According to the conservation program, there is a rare cliff forest biotype with some endangered animal and plant species.

Environmental authorities have investigated the EU Natura areas located near the Outokumpu site in Tornio. Reports and statements issued in the 2000s indicate that the Group's activities do not have a significant negative impact or threaten biodiversity in these areas.

The Mexinox production site has planted a lot of trees on the site, principally so that every employee has their own tree and takes care of it. This is part of the local voluntary nature conservation and climate program in this arid and dry area. Nature and landscape conservation, mainly coming from irrigation costs of vegetation and trees have been every year more or less significant.

At the Outokumpu site in Sheffield in the UK, an area has been established to provide protection for species of wading birds which nest there in springtime. Measures are taken to ensure that these nesting activities are not disturbed. At the Kemi chrome mine, water circulation ponds have increased local biodiversity by creating new nesting sites for waterfowl. At Avesta in Sweden, Outokumpu owns some 300 hectares of forest certified by the Forest Stewardship Council (FSC), an international organization established to promote responsible management of the world's forests.

Former production sites are returned to their natural state

Outokumpu ensures that areas formerly used for the Group's production operations are returned to their natural state. At the Kemi chrome mine, waste rock extracted during mining operations is now being utilized and intermediate rock-storage locations are being used in underground construction and for gallery-filling operations.

Outokumpu's use of one 22.5-hectare concentrating sand pond in production processes at the Kemi chrome mine ended in 2008. Drying out started in 2010 and landscaping and reforestation operations will be carried out in accordance with the remediation plan. The company is currently investigating more ecologically efficient ways of capping and landscaping disused ponds with industrial by-products.

At the Tinsley Park landfill site in Sheffield in the UK, approximately 50% of the landfill area has been capped after the completion of waste-tipping operations in these locations. As part of Outokumpu's commitment to future follow-up in this area, restoration work being carried out by the Group will add to natural levels of biodiversity. The plants being introduced are native species and operations being conducted include establishing areas of meadow. Species of wildflower are also being sown to provide an environment in which invertebrates such as butterflies and bees can thrive.

The decommissioning of Outokumpu's production sites at Meadowhall and Stockbridge in the UK (closed in 2009) proceeded in accordance with plans agreed with the local authorities in 2011. No environmental issues have emerged in these locations.

Marine ecosystems are in good health

The main discharges into recipient water from stainless steel production are metals and nitrates. These are monitored according to national guidances at every production site. For instance, as Outokumpu's Tornio site is located on the Tornionjoki river estuary on the coast of the Gulf of Bothnia and close to nature reserves, the Group's manufacturing operations have, from the beginning, been developed to be environmentally sound. Many studies monitoring the biological, physical and chemical conditions which prevail near the Tornio site have been carried out since the 1970s. The latest research report concerning the impact of nitrates on recipient water at the Tornio site and the Kemi chrome mine showed

that impacts are restricted to the immediate proximity of the discharge points at Tornio and cause slight eutrophication. At the Kemi mine, the impacts on sea areas are essentially negligible.

Pollution prevention techniques being employed by Outokumpu mean that increases in emissions can be avoided. Further reductions from earlier emissions levels will also be achieved in many cases, even at higher-than-current production levels. Annual studies carried out by Pöyry, a consulting company, have shown that impacts on sea areas close to the Group's production plants have diminished over the last ten years and that associated marine ecosystems are in good health. The results of the latest biological and fish population monitoring study published in 2013 confirmed the positive development. The new monitoring of bottom fauna, the levels of metal in fishes and water quality showed that fish populations were healthy and the levels of metals (Cr, Ni and Zn) were very low and similar to the non-loaded reference sea area 30 km from the factory. Also from bottom fauna even very sensitive species were found in the vicinity of the factory. The quality of the sea water was good and metal concentrations were below the drinking water limits at all sampling points during the whole year. Annually some twenty-five professional fishermen are working close to Tornio and catch around 50 tonnes of fish. The effluent from the Tornio site has not deteriorated the reproductive capability of the fish either.

A number of studies, including the continuous monitoring of discharge levels, have shown that discharges of chromium and nickel are now 60–80% below the levels that prevailed ten years ago. Considered to be the most significant metals released into the sea by Outokumpu's production activities at Tornio, current discharges of chromium and nickel only represent a fraction of the total metal loading, which originates in the main from natural sources in the northern part of the Gulf of Both-

nia. Tornionjoki and Kemijoki, the two major rivers in the locality, carry far greater concentrations of these metals into the sea than the total amount discharged by Group facilities. Activity in local fisheries located near the Tornio Works is at healthy levels and commercial fishing operations are carried out close to Outokumpu's production plant. Research indicates that the metals released from Group facilities do not accumulate in marine food chains. Even in sedimentation ponds of factory waste waters there are healthy fish populations.

Measures to improve the condition of the Baltic Sea continue

Outokumpu is participating in the Baltic Sea Challenge. Practical measures instituted at the Tornio site in the 2000s continue to be employed and the Group will also take action in the future to improve the condition of the Baltic Sea. In 2010, permission was given to take into use a 70-hectare sedimentation pond before filtering water into the sea. This pond is significantly reducing suspended solids and metals discharged into the sea. The quantities of nitrogen in wastewater released by Outokumpu are also estimated to be lower than previously.

All Tornio sanitary waters will be conducted to the local municipality water cleaning unit in 2013 and this will decrease the load on the sea even more. All the measures detailed above will help in further reducing the Group's environmental impact on the Baltic Sea.

For more information on the Baltic Sea Action program, please visit our Sustainability website.

Sustainable Supply Chain

The sustainability of the Outokumpu supply chain is important to the Group. We want to secure sustainable sourcing and manufacturing of our products and promote sustainability towards our suppliers.

The aim is threefold: to carry out business operations in a responsible manner, to develop continuously our performance, and to improve the sustainability of Outokumpu's supply chain together with the Group's business partners and subcontractors. The target is full accountability and sound, stable and fair business relationships with our suppliers. In addition, Outokumpu provides customers with continually updated product statements and declarations covering the supply chain.

Supplier requirements renewed

An essential element in ensuring Outokumpu's sustainability is regular evaluation of our suppliers' sustainability policies, practices, and related performance.

Internal common supplier requirements were renewed and further developed and approved during June 2013. These requirements are in line

with our policies and statements regarding sustainability. Implementation of these requirements has been started. During 2013, we evaluated the existing ways of working internally related to the supply chain processes of the former Inoxum units and plan how to implement new, Group-wide requirements.

To develop their performance, Outokumpu provides the Group personnel with regular training. The principles underlying sustainability, responsible business practices and good corporate governance are integrated into the materials used in commercial training, all the way from introductory courses to training courses designed to enhance contracting and procurement skills.

Regular dialogue in supply chain

During 2014 we will evaluate the existing ways of working related to the supply chain, especially since we want to be ahead of the increasing needs for information and statements for our customers. We will implement processes within the new Group operations and plan how to implement common requirements together with evaluation of new suppliers.

The latest round of the Group's sustainability evaluation of current suppliers was finalized in 2012. The frequency is planned to be tri-annual, the scope of the evaluation is all raw material producers and strategic suppliers in general procurement. Coverage of completed answers and evaluated companies was more than 90% of Outokumpu's total spending on materials and supplies to these companies (the study excluded energy purchases).

The data collected is used in the Group's program for developing a comprehensive and sustainable sourcing process. The results obtained from the evaluations form the basis of both development work and audit planning. Outokumpu monitors the performance of Group suppliers and subcontractors through auditing. Regular external audits carried out in accordance with local EHSQ (Environmental Health Safety and Quality) management systems used at Outokumpu's operational sites were conducted during 2013 as planned. The process is also an important element in managing supply chain risks. Awareness of such issues is the only way to provide Outokumpu's customers with accurate sustainability information, and to guarantee to end-users that the Group's stainless steel products are produced in a responsible manner.

Sustainability is a precondition for new suppliers

In addition to evaluating and auditing our current suppliers and contractors we have integrated sustainability issues in to the approval process for new suppliers. Sustainability requirements need to be acknowledged and signed up to by new suppliers, these issues are also part of Outokumpu's internal qualitative supplier evaluation system.

As a leading producer of stainless steel Outokumpu makes public product statements such as a conflict minerals statement, a statement related to product safety and health, radioactivity and chemical safety statements, and environmental product declarations. All of these statements require the Group to have knowledge of its suppliers and supplies.

Outokumpu ensures safety of our products

Outokumpu product safety information for customers and the Safety Information Sheets of products were updated for the new company in 2013. Because life cycle and environmental data of products is becoming more important Outokumpu has expanded Environmental Product Declarations (EPDs) to also cover our long products and rebar in 2013. Our EPDs are verified by an external independent institute. Read more about EPDs on p. 8 and 12.

Improved transportation efficiency reduces emissions

Efforts continued to minimize the environmental burden resulting from activities in Outokumpu's supply chain logistics and transportation. The emissions that result from product transportation are included in the Group's carbon profile and integrated into Outokumpu's long-term climate-change-related targets.

Total CO₂ emissions resulting from product transportation in 2013 totaled 139 120 tonnes. The proportion of products and deliveries transported by road, rail, and sea were 51%, 21%, and 28%, respectively. The total volume of finished products transported in 2013 was 2.4 million tonnes.

Transportation of Group products by mode in 2013

%	2013	2012	2011
by road	51	41.4	49.8
by sea	28	32.4	26.4
by rail	21	26.2	23.8
Finished products, 1 000 tonnes	2 431	1 243	1 357

Finished products, 1 000 tonnes, numbers for 2012 and 2011 are Outokumpu stand alone numbers

Outokumpu is working hard to increase levels of efficiency in the Group's transportation networks. Improved efficiency is an important factor in improving environmental performance.

An excellent example of the benefits resulting from increased efficiency is improved utilization of the vessel that travels between the production site in Tornio, Finland and the Outokumpu service and distribution center in Terneuzen, the Netherlands. By optimizing material movements, dispatching direct loads destined for European customers to Terneuzen by sea and then managing delivery to customers on arrival, utilization of this vessel has been significantly improved. The net effect is a saving of around 1 100 truckloads (approximately 27 500 tonnes) on an annual basis. During 2013, Terneuzen in particular increased the share of rail transportation, while Tornio further increased sea transport.

Another example illustrating Outokumpu's strategy of transferring transportation from road to rail and/or sea freight is the switching of deliveries from road to rail. The EuroLink railway system that connects Group sites is Outokumpu's primary internal, rail-ship-rail transportation solution for production materials. A project to switch deliveries originating in Tornio and destined for the UK to the EuroLink system commenced in 2011, and during the first full-year in 2012 the savings were around 400 truckloads (approximately 10 000 tonnes).

A big challenge for the company in 2013–2014 is to reorganize a part of logistics and transports according to new business plans and material flows. The leading principles in this work are efficiency and optimising, including environmentally sound transport methods whenever applicable.

Environmental investments and expenditures

Costs for environment-related activities within Outokumpu totaled EUR 106 million in 2013, of which costs associated with operational environmental management totaled EUR 101 million. Operational costs include process-related treatment, disposal and remediation costs for waste and emissions into air and water.

Provisions and guarantees in connection with environmental considerations totaled EUR 53 million, including Innoxum, and additional provisions for the aftercare of former mining sites totaled EUR 1 million. Environmental investments by Outokumpu in 2013 totaled approximately EUR 25 million, a clear indication of the Group's commitment to achieving continual improvements in sustainability despite the challenging business environment.

Main recent environmental investments

At Degerfors, Sweden: Direct environmental investment to new water treatment plant (EUR 6.5 million). Environmental investments were part of larger production investment program together with investments significantly improving environmental performance – two heat treatment furnace replacements and upgrade of existing walking heart furnace – these investments are continuing in 2014.

At Avesta, Sweden: New regenerative burners at melt shop ladle and converter furnaces (EUR 1 million).

At Calvert, AL US: at melt shop, cold rolling and site also the environmental investments related to establishing new production site were completed over the period of 2011–2013, and they amounted over to EUR 100 million. The most significant investments in this area were:

- » Water treatment plant: USD 61 million
- » Acid regeneration plant USD 22 million
- » EAF dust filter baghouse USD 22 million
- » AOD dust filter baghouse USD 21 million
- » AOD material handling dust filter baghouse USD 8 million
- » Other dust filter baghouses USD 8 million

At Dillenburg, Germany: investment in new neutralization plant was taken in to use in 2013 (EUR 2.5 million).

At Wildwood, FL, US: A "Pickling project" started and will reduce pickling times, minimize the use of acids, and greatly reduce or eliminate the need to sand blast. The aims include:

- » reducing acid gas emissions up to 90% by reducing the surface interface of acid to air
- » retaining heat by acting as a layer of insulation for up to a 75% improvement in heat loss
- » reducing evaporation of pickling liquor by up to 90%
- » providing a cleaner and healthier work environment for the pickling crew.

Environmental investments of the new Outokumpu during the last decade have been some EUR 400 million, including e.g. new acid regeneration plants for Avesta and Krefeld, improvement projects for energy efficiency and dedusting equipment for several units.

At New Castle, IN, US, the spray pickling line accompanied by new wet scrubber for emissions yielded great results. This small investment is now in full use and nitric acids were reduced by 87% and hydrofluoric acids by 91%. This achievement was also reported to and acknowledged by the US Environmental Protection Agency's pollution-prevention programs.

Investments to improve energy efficiency

Outokumpu's new ferrochrome plant came on stream during 2013. The expanded operations produce also significantly increased amount of carbon monoxide (CO) – gas which can be used as fuel. New gas pipelines, blowers and changes in end-consumption units were taken into use during this year. The utilization of CO gas increased by some 50%, and improved the overall energy efficiency of the Tornio site, including on-site contractors. This is an excellent example of additional benefits only possible for integrated ferrochrome and stainless steel operations.

Process development

Outokumpu has R&D teams dedicated to the development of our production processes and technologies. These process and technology development activities focus on reduction of the environmental impact, improvement of the cost efficiency of our production processes and on optimization of product quality. In 2013, the Group decided to launch several Core Technology Competence working groups for internal improvement of production processes. Almost all of the areas these Groups work in will have positive effects on environmental matters and aspects. The work of these groups will start in 2014.

Our people

2013 was characterized by extensive transformation agenda and integration work to combine the power of two stainless steel companies in a challenging market environment.

The transformation agenda included organizational restructuring, capacity optimization and revision of processes, and it required also many hard and difficult decisions. However, there was a strong and joint ambition to turn around the company and to create a true market leader in stainless steel.

In the first half of the year, a new and lean organizational structure was built up enabling synergy benefits and higher effectiveness for the business with our customers. In the second half of the year consideration was given to processes and activities Outokumpu will focus on – which will be taken care of globally and which locally.

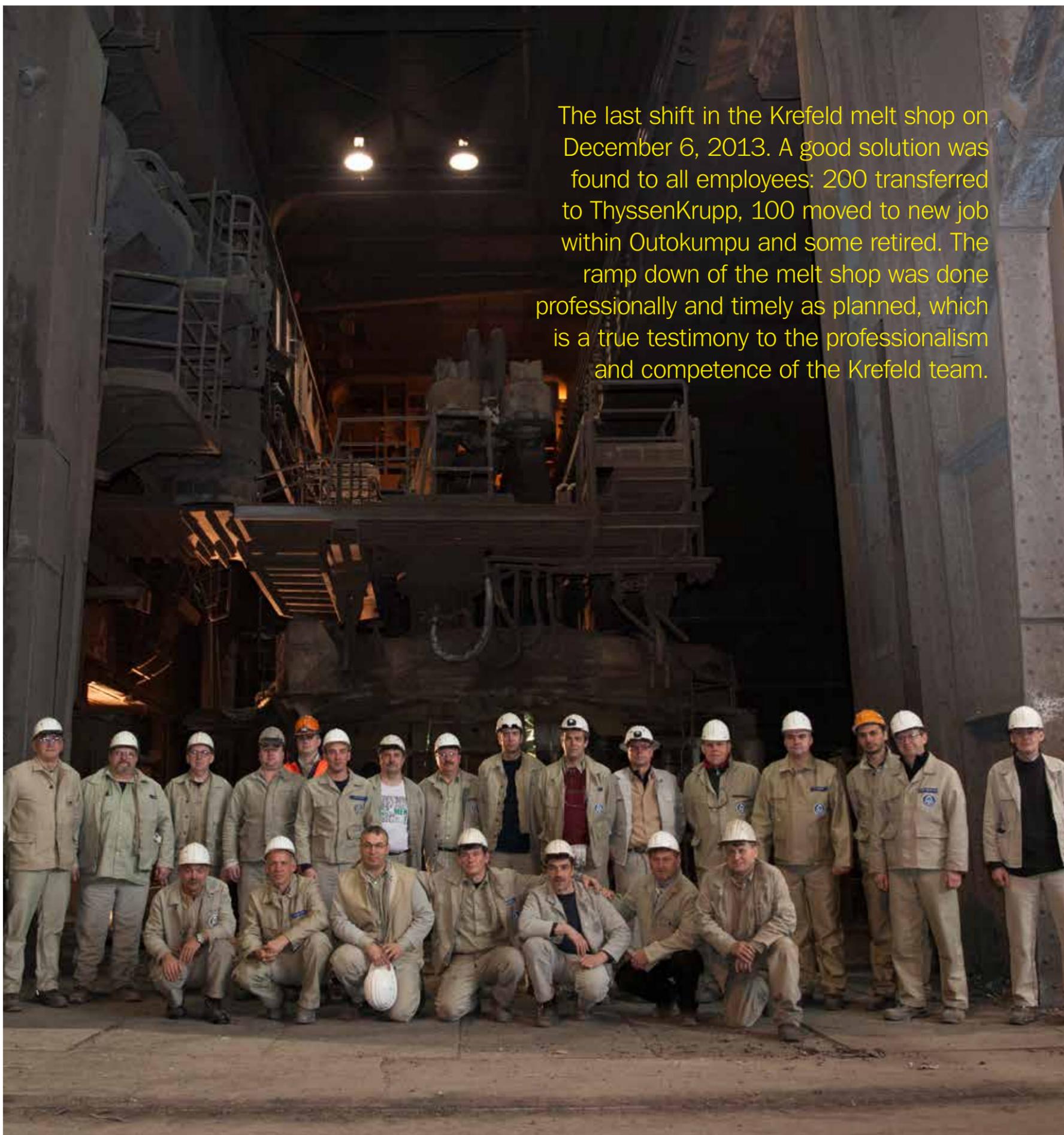
The weak market situation continued throughout the year. Since the beginning of the year, Outokumpu pursued announced synergy savings very successfully, beating all targets. In April Outokumpu announced new cost savings programs and in October new industrial plan for its operations in Europe. All these programs are ongoing and will include altogether 3 500 job reductions by the year 2017. As a result of all the cost savings actions, 766 job reductions were implemented in 2013. At the end of the year the Group had 12 561 employees in the continuing operations.

In May, Outokumpu unveiled a powerful new vision (“a world that lasts forever”), mission and brand for the new company. Employees were provided with interactive e-learning program and possibility to contribute to the process.

During the integration planning in 2012, the Outokumpu Leadership Team defined four joint transformation principles for the new company: from volumes to profits, from production to customers, speed and working together. To accelerate integration and transformation, a 2.5 day strategy workshop was arranged for the top 170 leaders in the spring in 2013. With input from this workshop, the transformation principles were further developed and turned into everyday individual behaviors, so called Winning Behaviors. A process to increase employee engagement was started in October in form of local interactive workshops to make the Winning Behaviors visible in the daily work. The workshops will continue in 2014, and the Winning Behaviors will be part of the individual target setting in 2014.

As part of the integration work, Outokumpu put a lot of effort into internal communication and making the strategic targets and their progress transparent to employees. In Outokumpu, the most important communication channels are line management communications and intranet. To intensify communication across the organization and especially to people working in production tasks, Outokumpu launched an employee magazine in four languages.

The last shift in the Krefeld melt shop on December 6, 2013. A good solution was found to all employees: 200 transferred to ThyssenKrupp, 100 moved to new job within Outokumpu and some retired. The ramp down of the melt shop was done professionally and timely as planned, which is a true testimony to the professionalism and competence of the Krefeld team.



Focus on company turnaround

Please note that all personnel figures include Outokumpu personnel in the continuing operations. The figures do not therefore include Terni remedy assets or VDM business of which Outokumpu announced the divestiture in November 2013, except for personnel by countries, which is counted including discontinuing operations.

In 2013 Outokumpu was operating in a challenging market and focusing on turning around the company to reach sustainable profitability. This meant difficult decisions from the employees' point of view. In 2013 Outokumpu pursued previously announced synergy savings of EUR 200 million and announced a new cost savings program to cut annual costs by EUR 150 million (P150 program) during the year. At year-end, discussions were still continuing with the unions and employee representatives about the new industrial plan announced in October 2013. These savings will begin to show in 2014 after the negotiations have been completed.

Overall, Outokumpu's number of employees increased from 2012 to 2013 from 7 249 to 12 561 (continuing operations). At the beginning of 2013, due to the Inoxum transaction 12 085 people joined the Group from the Inoxum side. During 2013, following the Terni remedy and VDM divestiture, in total 6 007 employees were excluded from the continuing operations. By the end of 2013, the number of employees in continuing operations decreased by 766 as a result of various cost savings measures.

The average turnover rate for permanent employees was 5.7% (2012: 8.0%, 2011: 5.5%), the hiring rate 3.4% and the leaving rate 7.9%. The voluntary leaving rate was 3.5% (2012: 3.1%). The number of people on fixed-term contracts was 563. In all restructuring work and lay-offs Outokumpu complied with local legislations, collective bargaining agreements and other applicable regulations.

The share of blue-collar workers increased and was 65% (2012: 61%). The share of women decreased and was 14% (2012: 17%), and the share of men was 86% (2012: 83%). Due to the transaction, most of the Group's employees are now located in Germany, where the company has several sites: of the employees, 32% work in Germany, 19%

in Finland, 16% in Sweden, 9% in the US and 9% in Mexico.

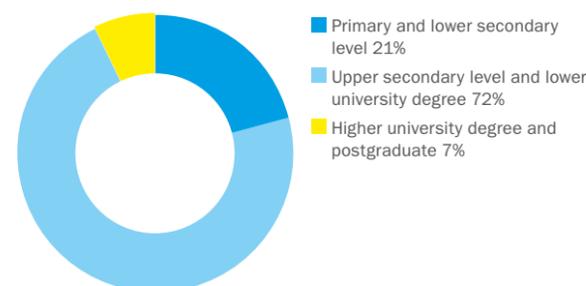
Outokumpu's permanent employees mostly work on a full-time basis and some 811 people work on a part-time basis, corresponding to 709 positions in full-time equivalents.

Key figures

	2013	2012	2011
Sales/person, € million	0.5	0.6	0.6
Training costs of total personnel costs, %	0.4	0.6	0.8
Training days / person	2.5	1.5	2.0
Incentives of total personnel costs	4.9	3.2	3.2
Days lost due to strike	24.0	8.0	14.0
Personnel turnover, % ¹⁾	5.7	8.0	5.5

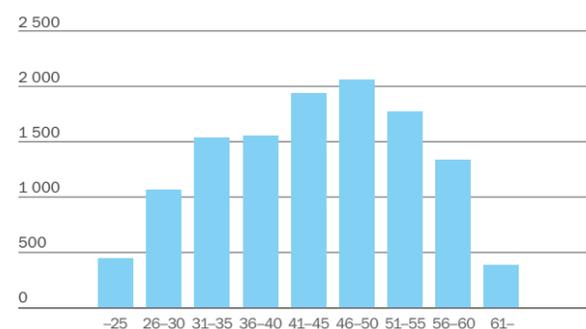
¹⁾ Average turnover: ((newly hired + leavers)/2)/year-end headcount

Educational background, permanent employees*

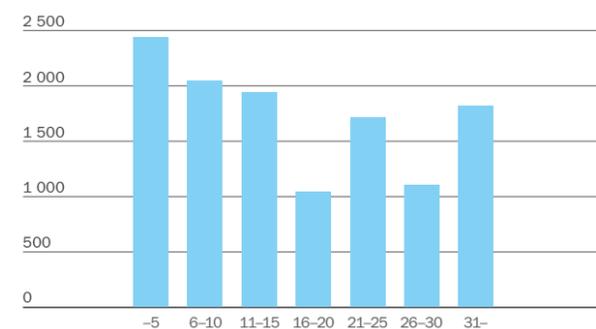


*Data covers 97% of the employees of the continuing operations.

Personnel age profile, permanent employees



Personnel by years of service, permanent employees



Personnel by countries (including discontinuing operations)

	2013		2012		2011	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
Europe						
Germany	5 917	5 643	6 342	6 021	228	189
Italy	3 078	3 071	3 115	3 105	297	273
Finland	2 404	2 320	2 753	2 599	2879	2 745
Sweden	1 954	1 873	2 466	2 365	2957	2 818
The United Kingdom	583	578	615	609	648	642
The Netherlands	203	196	227	221	397	383
France	104	100	119	119	73	72
Turkey	83	83	84	84	3	3
Spain	49	47	57	55	17	15
Poland	45	44	54	52	29	28
Hungary	29	29	33	33	12	12
Austria	14	14	21	19	17	16
Russia	11	11	12	12	13	12
Norway	8	8	11	11	12	11
Denmark	6	5	16	16	20	20
Belgium	5	5	5	5	24	23
Czech Republic	2	1	1	1	19	18
Portugal	2	2	3	3	4	4
Romania	1	1	1	1	2	2
Estonia	0	0	39	38	48	47
Ireland	0	0	0	0	6	6
Lithuania	0	0	0	0	5	5
	14 498	14 031	15 974	15 368	7 710	7 344
Americas						
The United States	1 356	1 355	1 333	1 332	309	309
Mexico	1 091	1 091	1 103	1 103	0	0
Argentina	88	88	103	103	0	0
Brazil	5	4	6	6	5	5
Canada	4	4	32	32	26	26
	2 544	2 542	2 577	2 576	340	339
Asia						
China	582	582	597	597	44	44
India	15	15	16	16	16	16
Japan	13	13	12	12	9	9
Singapore	12	12	13	13	12	12
United Arab Emirates	5	5	5	5	5	5
South Korea	4	4	4	4	0	0
Hong Kong	0	0	17	17	15	15
Saudi Arabia	0	0	78	78	73	73
	631	631	742	742	174	174
Australia	37	37	37	36	25	25
Africa						
South Africa	4	4	4	4	4	4
	4	4	4	4	4	4
Group total	17 714	17 244	19 334	18 726	8253	7 886

Goals and results

Goals and results for 2013

Outokumpu set goals for 2013 before the Inoxum transaction was closed at the year-end. These goals were related to defining people strategy to support Outokumpu's business in an optimal way, conducting a yearly employee engagement (O'People) survey and ensuring good implementation of the performance and development dialogue (PDD) process and further improving the PDD completion rate.

In the course of 2013, Outokumpu had to react and prioritize its initial people management objectives in order to support and sustain the required steps in integration and change.

Instead of a comprehensive employee engagement survey as initially planned, a number of more focused surveys on internal communications and integration basics were conducted to gain fast and direct feedback from our employees. Performance management remained as a focus area in leadership, with a clear priority on establishing performance dialogues across the newly formed organization.

Outokumpu's existing performance and development dialogue (PDD) process is a key part of Performance Management and at the same time the right of every employee that will be followed in the business areas, while taking into consideration the local processes and employee relation agreements. The practice varies from unit to unit and country to country according to local legislation and practices.

Due to the integration between Outokumpu and Innoxum, Outokumpu does not have a uniform system for performance management or discussion, and therefore an overall completion rate for PDDs cannot be given.

Goals for 2014

For 2014, the overriding objective will be consequent implementation of ongoing restructuring measures and to move the company beyond restructuring and into business excellence. The focus areas for 2014 will be increased focus on job rotation, building up capabilities and looking into fundamental business processes to ensure customer satisfaction and internal efficiency.

Diversity and equal rights

Outokumpu's ethical principles build on the equal treatment of all people and zero tolerance for any kind of discrimination based on their ethnic origin, nationality, religion, political views, gender, sexual orientation or age. A transparent and unified resourcing process ensures equal opportunities. Outokumpu complies with international labor treaties and condemns the use of forced and child labor.

During the year, the Code of Conduct was updated to reflect the recent developments in the Group. A more thorough update is planned for 2014.

Outokumpu maintains a consistent policy of freedom of association. All employees of the Group's operations are free to join trade unions in accordance with the rules and regulations that apply in the local labor market.

In 2013, some 83% of Outokumpu's permanent employees were covered by collective agreements. There were 24 days lost to a strike (2012: 8, 2011: 14).

The overall percentage of women working in Outokumpu among its permanent workforce is 14% (2012: 17%; 2011: 18%). At the end of 2013, two of the seven members of the Outokumpu Board of Directors were women. Within the Group, 13 women hold key leadership positions, corresponding with the overall percentage of women in Outokumpu.

Open communication in integration and managing change

Outokumpu values employee commitment and motivation. Therefore, Outokumpu continued to place particular focus in communication in 2013: in the integration and managing change, clear and open communication is the key.

After publishing an integration newsletter in 2012, a decision was made during the year to publish a quarterly personnel magazine in German, Finnish, Swedish and English and to publish two other newsletters with more specific needs, one for managers and the other for Stainless Coil EMEA, the business area facing the biggest restructuring work. To mark important milestones and to ensure everybody is updated on targets and progress, CEO letters are issued to the employees and teleconferences arranged for the top 200 managers to enable them to inform their own teams. Communication channels include team meetings, the Group intranet, personnel meetings, teleconferences and videos, printed magazines and e-mail newsletters.

To further develop internal communications, Outokumpu conducted an internal communication survey in March and in December. The results in the spring showed that internal communications were working reasonably well but that development was needed in line manager communications, on communicating the strategy or the so-called big picture and on the usability of the Group intranet. The Group started quarterly business updates, with the aim of all managers taking the message to their own teams. The most important targets such as synergy savings, inventory levels and customer feedback are now regularly tracked on the intranet. Even though major development work was on hold due to cost savings, improvements in the usability of the intranet were undertaken based on feedback. The second survey in December showed some clear improvements compared to March 2013 survey results. For instance, the share of people who felt that they get relevant information about what is going on in the Group increased in six months from 66% to 73% favorable. Employees also saw grapevine as being a clearly less important source of information than before.

Outokumpu Personnel Forum

Outokumpu's Personnel Forum is a joint consultative body which provides a channel for transferring information between Outokumpu's management and its employees. The personnel forum was first established some ten years ago in response to a European Works Council directive. In 2013, the OPF agreement was renegotiated to reflect the changes in the Group due to Innoxum integration. The role of the forum is to discuss issues of transnational interest, such as the economic and financial performance of the Outokumpu Group, future business prospects, product and market situations, broad strategy issues, investment decisions, the annual report, manpower and employment issues, business reorganizations and matters such as health, safety and the environment, technology and research and other matters where these have transnational impact or common interest.

The first personnel forum of the new company began its work after summer with 33 representatives from European operations and held its annual meeting in November in Krefeld, Germany. The personnel forum appoints a working committee which is responsible for ongoing cooperation between the management and employees. The committee has eight members of the personnel and three representatives of the management. During 2013, the committee had 5 meetings.

Training and development

During 2013, Outokumpu continued to face a challenging financial situation and implemented synergy and cost savings programs. Therefore, the training programs were kept on a minimum level in 2013 and only business critical training and safety training were organized. In accordance with the decision, the Group's training costs decreased and were 0.4% of the total personnel costs (2012: 0.6%; 2011: 0.8%). The Group provided 2.5 training days per employee (2012: 1.5; 2011: 2.0).

While formal training programs were limited, integration work and the new organization provided a lot of development opportunities, job rotation and learning on the job for Outokumpu employees. Excellent examples of job rotation practices were the continued ramp-ups: the ferrochrome expansion project in Finland and the Calvert investment in Alabama, USA. Calvert faced some normal issues in the ramp up like quality and delivery reliability. Volunteers from Finland and Sweden were chosen at the end of 2013 for a job rotation in Calvert to share their expertise in stainless steel.

Because of the amount of integration work that was going on during the year, the Group also initiated two programs – first the “Power of Two” program for the top 170 managers during the first half of the year and during the final quarter of 2013 the Outokumpu Spirit workshops for as many employees as possible. The aim of the Power of Two program was to accelerate the integration and transformation of the two companies that both have 100 years of experience in the field of stainless steel, and utilize the best parts in both organizations. The participants of the Power of Two program gave valuable input in the work of developing the transformation principles – from volumes to profits, from production to customers, speed and working together – into concrete behaviors. These Winning Behaviors were finalized during the third quarter. Employees have been invited to local Outokumpu Spirit workshops to discuss how they can take these behaviors as a part of their everyday work and take action already today. The feedback from both programs has been positive and these initiatives are a major step in building the Outokumpu Spirit in the new company.

period. PDD discussions are held once a year with a recommended mid-year review. The practice varies from unit to unit and country to country according to local legislation and practices.

Due to the integration between Outokumpu and Innoxum, Outokumpu does not have a uniform system for performance management or discussion, and therefore an overall completion rate for PDDs cannot be given. However, Outokumpu's overall target stays the same: all Outokumpu employees have performance and development discussions with their manager once a year.

The work done by leaders is extremely important when the operating environment is challenging and Outokumpu's PDD process provides them with a useful and important tool. Outokumpu will continue to support leaders in this area through a stronger focus on achieving high-quality discussions that have a positive impact on both manager and employee – with a corresponding positive effect on Outokumpu's performance. Successful PDDs increase individual motivation, help improve employee's performance and are an effective way of supporting the Group's business activities.

Compensation and benefits

Outokumpu's intention is to provide competitive base salary for all Group employees based on the scope of their role, individual performance and in line with local labor market and agreements. Typically, base salary levels also vary according to the stage each individual has reached in their career. At the national level, Outokumpu's aim is for base salaries to be at the market median.

Incentive schemes are used in addition to base salaries as an element in total individual compensation. Incentive payments totaled 4.9% of the Group's total personnel costs in 2013.

Read more on management remuneration in the Corporate Governance statement in the Annual Report, p. 117.

Performance management

Performance management is one of Outokumpu's key processes. Business success demands high-quality performance management processes at both individual and Group level. Outokumpu's target is that all its employees have a performance and development dialogue with their manager.

Performance and development dialogues (PDDs) support Outokumpu's strategy execution and reinforce a performance-driven mindset especially in the current situation where Outokumpu is turning the company around. The essence of the process is engaging and involving Outokumpu personnel in the Group's strategy implementation. In

PDD, business targets are cascaded into individual targets to ensure that actions are aligned with Outokumpu's business strategy and support the Group's success.

Outokumpu requires that each unit has a performance management process in place and that each employee has a documented development discussion with his or her manager. In general, Outokumpu's performance and development dialogue consists of a formal annual review of both an employee's performance against defined targets and development achieved in the preceding 12 months, together with a new performance and development plan for the next 12-month

Safe working environment

At Outokumpu, safety remains the number one priority. Outokumpu is committed to providing a safe and healthy working environment at its production sites and facilities for its own personnel, contractors and visitors.

Safety remains the number one priority

At Outokumpu, safety is the number one priority. The Group management continue to reinforce a message that safety comes before performance with key safety performance indicators visible throughout the company.

Outokumpu remains committed to providing a safe and healthy working environment at its production sites and facilities for its own personnel, contractors and visitors.

In the area of safety, Outokumpu had its best performance across a number of performance indicators. The former Inoxum units have adopted the Outokumpu Safety Management systems and reporting protocols on top of their well-established systems and processes.

The ultimate goal remains zero accidents and ambition levels have been set to make a step change improvement during 2014 and 2015.

Health and safety figures from 2013 continuing operations reflect the scope of Outokumpu operations as they were in 2013, including the VDM business and excluding the ring-fenced Terni operations. For the same reason, the comparison year (2012) figures have not been adjusted, and they include Outokumpu stand-alone before the completion of the Inoxum acquisition. The injury figures include contractors and Outokumpu personnel.



The ultimate goal remains zero accidents and ambition levels have been set to make a step change improvement during 2014 and 2015.

Health

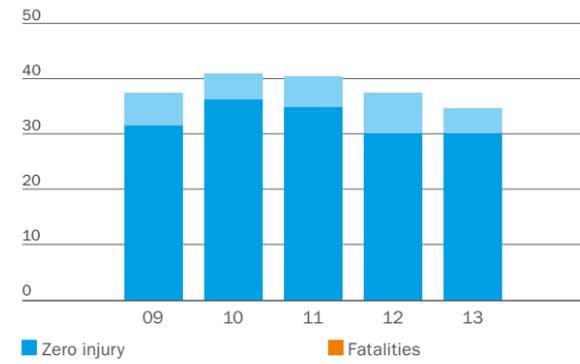
As a responsible company, Outokumpu initiated systematic health studies with world-class independent expert institutes in the 1980s. The main targets of these studies have been individual levels of exposure to chromium and other compounds in the stainless steel production chain and their long-term effects on respiratory health. Activities focus on improving working environments and employee health is monitored using a variety of occupational health checks and fitness tests. Occupational hygiene measurements are carried out on an ongoing basis at Group production sites to monitor work-related exposure to noise and impurities in the ambient air, as well as other factors. Issues related to working environments within Outokumpu are also studied through joint research projects carried out in collaboration with universities and specialist institutions.

In 2013, an average of 6 691 days per million hours worked by Outokumpu employees were lost as a result of sickness or injury (2012: 5 980). The number of cases of occupational disease diagnosed in the Group in 2012 was 11 (2012: 16). The number includes six suspected cases of occupational disease, which are still unconfirmed.

Cancer incidence among Finnish ferrochromium and stainless steel production workers

An epidemiological cancer study was completed and the results were published in the article "Cancer incidence among Finnish ferrochromium and stainless steel production workers in 1967–2011: a cohort study" in the British Medical Journal in November. The cohort consists of 8 100 employees who have been employed at the Outokumpu mine in Kemi and production site in Tornio since 1967. People living in Northern Finland are the reference population in the study. The results indicate that the total number of cancer cases in the cohort equals the number of cases expected in the reference population. The incidence of lung cancer is 21% lower than in the reference population.

Total rate of injuries for employees and contractors*



* Per 1 million working hours.

Safety

The safety focus has remained high despite the challenging business climate. This is a great testament to the Group and operational leadership, the safety practitioners and our employees.

Outokumpu remains committed to providing a safe and healthy working environment for all of its employees, contractors and visitors. The ambition is to continuously improve our safety practices to ensure that Outokumpu is an industry leader in safety.

focus for Outokumpu's operational management. The proactive development continued in 2013 and training for these processes was rolled out to the former Inoxum units and will be more evident in 2014. The number of hazards spotted and closed was 16 582 (2012: 17 326) and the number of safety behavioral observations also increased to 20 011 (2012: 11 533).

A number of plants maintained zero lost time injuries during 2013 and have maintained this for multiple years. These sites are across the production steps, providing evidence of best practice and sharing opportunities.

Safety performance

In 2013, the total injury frequency for the new company was 34.6 (2012: 37.8). The Group LTI rate (lost time injuries per million working hours) improved to 4.5 and was in line with targets (7.2 for 2012). The number of severe accidents remained at a low level with many injuries being of a minor nature resulting in a lower number of days absence.

There were no fatal accidents in 2013; however, clear attention on the severe accidents provided a clear reminder of the importance of a continuous safety focus.

The number of non lost time injuries was 908 (2012: 512).

The follow-up of proactive safety indicators continued to be a main

Road map for future development

Outokumpu's safety strategy follows our existing safety principles and is built on the three themes of having visible safety leadership, employee ownership of safety and sound safety systems and processes. Work across these three areas will continue in 2014.

Outokumpu and society

Outokumpu's operations have economic impacts on local, national and global communities in its countries of operation through paying taxes, direct and indirect employment, and other means of community involvement.

Outokumpu operates in a competitive industry where demand and supply meet on global markets. On the other hand, our production sites are often located in relatively small cities or towns. This means that Outokumpu is significant to the small local community's economy, and often one of very few private sector employers in the area. Finding balance between global market trends and responsibility towards communities is sometimes difficult, especially in economic downturns. Decisions have a major impact on communities, Outokumpu personnel and their families and local goods suppliers and service providers as well.

Events tailored to creating open and active participation, such as a variety of "open house" events on production sites, are clear signals for local communities that we want to be part of local communities and to encourage an open Outokumpu culture.

Outokumpu makes donations to various charitable enterprises and events in line with its ethics. The

Group may sponsor research and environmental programs, sporting activities, culture and a variety of events at local level, as well as charity work. We also offer scholarships to students. Organizations that arrange activities for children are supported.

Outokumpu supports research and development related to its field of industry and maintains close cooperation with educational institutes in the training of engineers, miners and supervisors. Apprenticeships have been offered to local colleges and student placements have been made available in the form of one-year programs, and schoolchildren and local students have been introduced to the Group's operations.

Outokumpu does not take part in or otherwise support political activities whether they are local or national. Outokumpu does not make donations to any political parties or groups.

Value added distributed to Outokumpu's stakeholders*

Generation of value added

+ Customers
Sales
6 745 € million

- Suppliers
Cost of goods and services
6 110 € million

= 634 € million
Value added



Distribution of value added

→ Employees
Wages and salaries
711 € million

→ Public sector
Taxes and social dues
98 € million

→ Creditors
Interest on debt and borrowings
201 € million

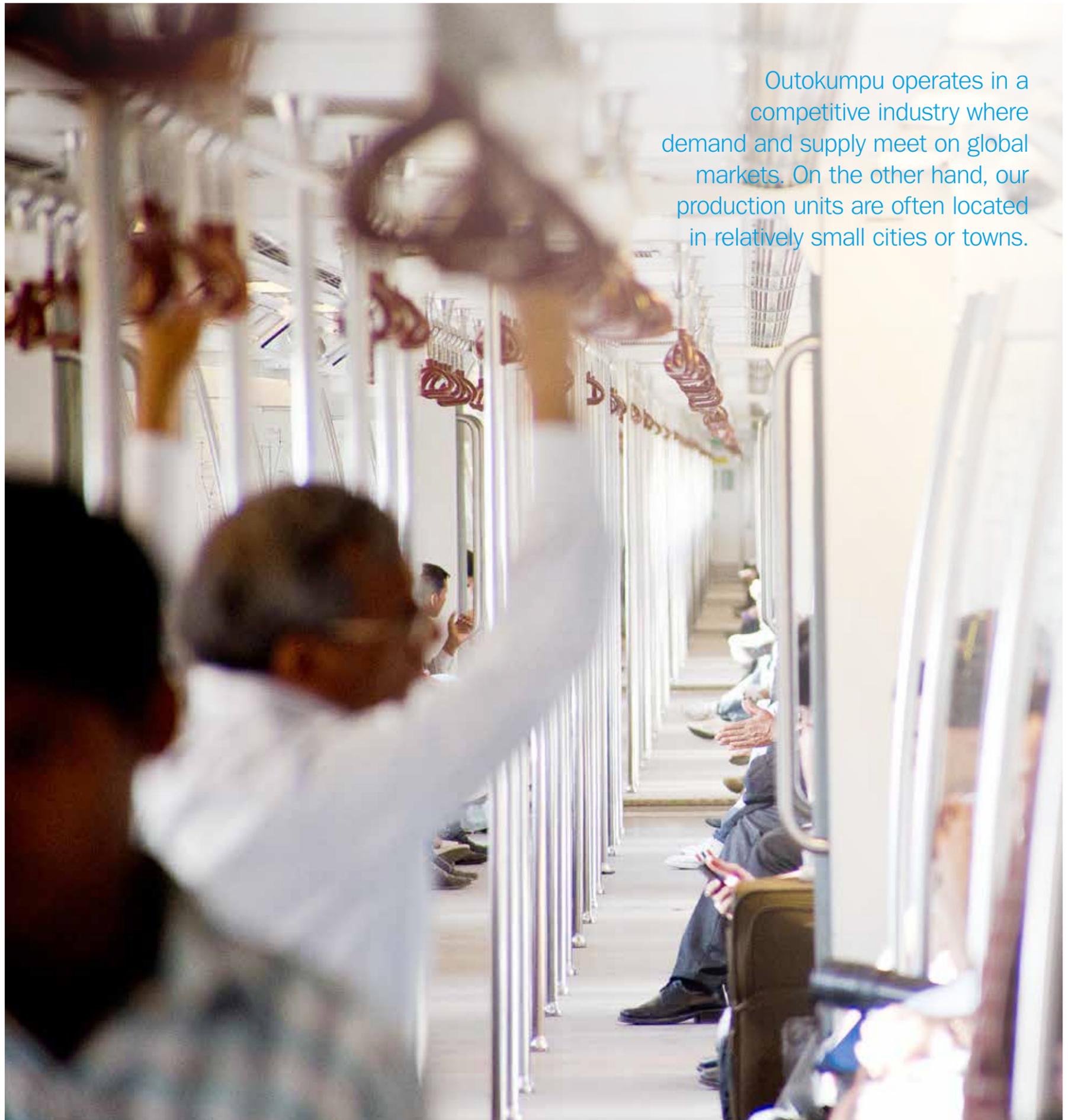
→ Shareholders
Dividends - € million

Distributed to stakeholders
1 010 € million

Retained in business = -376 € million

*Including continuing operations.

Outokumpu operates in a competitive industry where demand and supply meet on global markets. On the other hand, our production units are often located in relatively small cities or towns.



Risks and stakeholders

To expand appreciation of key risks within Outokumpu and to help in mitigating the effects of possible impacts on stakeholders, the Group also monitors potential risks from a corporate responsibility perspective.

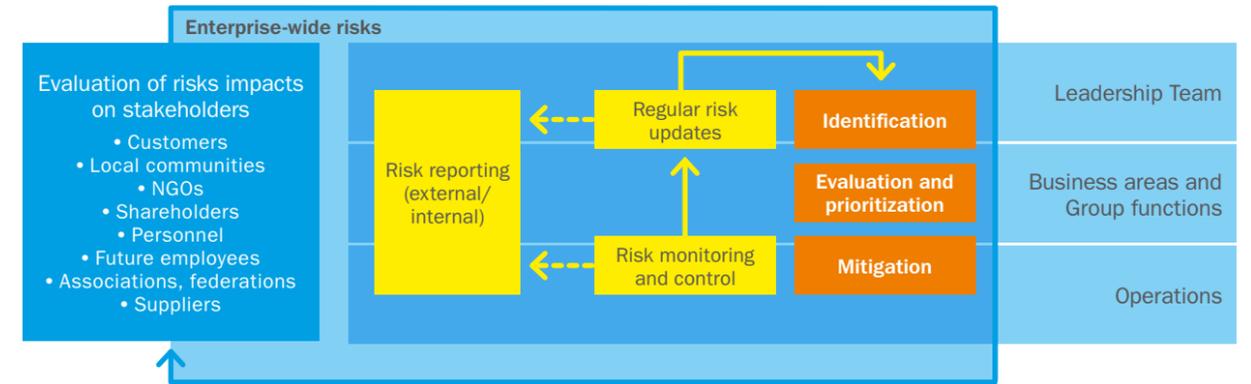
risks at all organizational levels and includes assessments of the impact of key risks on Group stakeholders.

Sustainability-related issues including stakeholder dialogue is an integral part of the Group's risk management process. In addition, the Group's risk management participates in the corporate responsibility team of Outokumpu. This secures efficient communication to both directions and strong presence of risk management perspective.

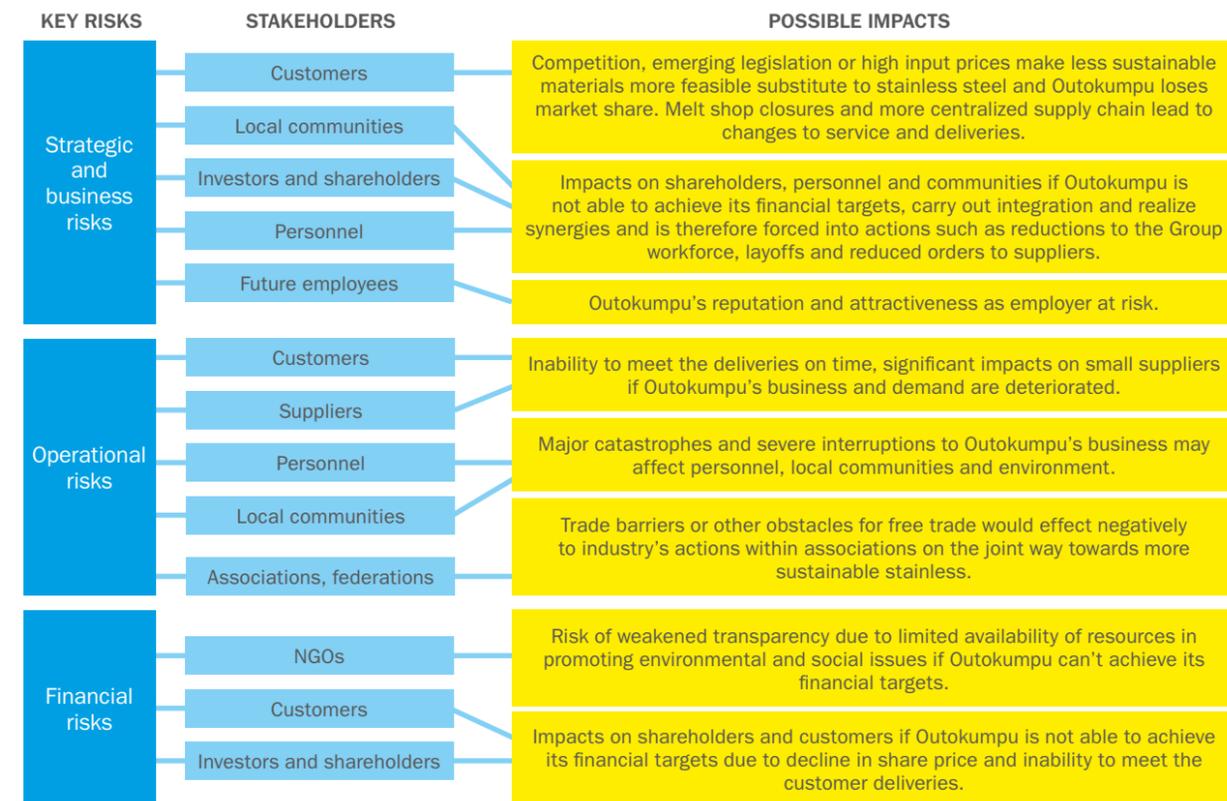
The "Stakeholder perspective" diagram specifies key stakeholder groups and provides examples of the possible impact of different categories of risk on Outokumpu's operations.

Impacts on stakeholders are reviewed as part of Outokumpu's risk management process. The evaluation process covers enterprise-wide

Key risks are evaluated for stakeholder impacts



Stakeholder perspective



Customers

Outokumpu serves its customers – distributors, producers of consumer goods and manufacturers of various industrial applications alike – globally. Continuous feedback and interaction with customers help us to improve our understanding of their needs, the challenges they face and the business environment our customers operate in.

analyzed and benchmarked to support us in various goals. Customers' feedback helps us to achieve our growth targets, and is used to enable continuous improvement of our performance, both on strategic and operational levels. The overall aim is to have a mutually beneficial process that helps us improve and increases the satisfaction of our customers. Despite the challenging year of integration and several changes ongoing, Outokumpu's customer satisfaction continues to outperform that of our competitors.

One year ago, at the turn of the year, Outokumpu and Inoxum joined forces and emerged as the new global leader in stainless steel. With the merger, Outokumpu's product portfolio grew, making it the widest in the market. At the same time our customer base expanded into more consumer-driven segments. With such a big change, Outokumpu aimed at business continuity and customer satisfaction for its customers. One of the transformation principles in the new company in 2013 was putting the customer first. Over the year, these principles evolved into Winning Behaviors that guide everyday individual behavior and are part of target-setting of each employee. This ensures that 'Customer first' as a promise is embedded in our everyday operations.

In May, we arranged our first global customer event, Outokumpu Experience in London, the UK. The event brought together some 700 stainless steel professionals under one roof. Outokumpu showcased its portfolio and launched new products in the event. At the London event, Outokumpu also launched its new vision of a 'world that lasts forever'. This vision crystallizes the sustainable properties of our products: in Outokumpu's products, more than 80% is recycled content and they are long lasting and 100% recyclable.

During 2013, Outokumpu's sales and technical customer service people continued to help our customers select the right materials for each application. Several online tools such as Steel Finder also help customers to browse our offering, and to choose the correct grade. Outokumpu's earlier published handbooks, Welding Handbook and Corrosion Handbook, were complemented with a Handbook of Stainless Steel. This Handbook is especially targeted for engineers, designers, materials specifiers and students.

In November, Outokumpu introduced a new pricing model, the daily alloy surcharge, for the European market. This new pricing model entered into force in January 2014, following a piloting project where we tested and developed the model in collaboration with pilot customers. The model allows our customers to react faster on the changes in the raw material prices and to choose between different options in avoiding alloy risks and selecting optimum alloy surcharge. Our customers employing this model can choose whether to fix the alloy surcharge on order date or on any other date between the order and mid-week prior to the delivery week. Daily alloy surcharges are published daily at www.outokumpu.com.

During the year, Outokumpu continued to collect continuous, first-hand feedback from our customers. New customers from the Inoxum business were included in the globally uniform feedback system that Outokumpu uses to collect and utilize customer insight in all our countries of operations. The data obtained through the system is an-

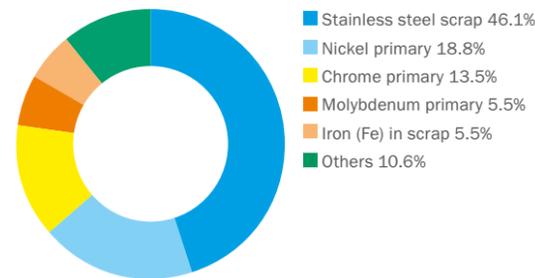
Suppliers

Raw material purchases are the largest item in Outokumpu's costs. In 2013, Outokumpu's delivery volumes were 2 894 000 tonnes, a comparable decrease of 5.3% from the previous year, based on management estimate for 2012 figures. The cost of goods and services fell by 20.6% from the previous year, mainly due to the synergies in procurement, compared to the comparable figure from the previous year based on management estimate. As Outokumpu and Inoxum combined operations as of the beginning of the year, majority of the synergy savings came from raw material and general procurement

Primary raw materials – nickel, ferrochrome, recycled stainless and carbon steel – are purchased on the open market. Part of the ferrochrome are sourced internally from the Group's own chromium mine and ferrochrome operations. The doubling of ferrochrome capacity is being ramped up in 2013, after which the production capacity of ferrochrome will double by 2015.

Outokumpu regularly evaluates its suppliers from the sustainability point of view, highlighting the responsibility issues within society and local communities. The scope of the study was all raw material producers and strategic suppliers in general procurement. In the last

Raw material spend by category in 2013



round of evaluation, the coverage of all completed answers and evaluated companies was more than 90% of Outokumpu's total spending on materials and supplies to these companies.

Read more about our sustainable supply chain on p. 31.

Current and future employees

Both current and future employees are very important stakeholders for Outokumpu, their energy and commitment being a fundamental part of the Group's business.

At the beginning of the year thousands of new employees joined Outokumpu through the integration with Inoxum, and first steps were taken to start to build the new culture together. Outokumpu's employees will be the key building block in creating the Outokumpu Spirit. Within Outokumpu, safety and sustainability are key values. This is why they are incorporated into the Group's brand, both internally and externally.

Outokumpu's long-term target is to be the most attractive employer. During 2013, Outokumpu continued its long-term efforts to develop the Group's employer brand. In Finland and Sweden, co-operation with schools and universities is an important means of communicating Outokumpu's employer brand. In Finland, the main academic partners are Aalto University and the University of Oulu. For Sweden, these partners are the KTH Royal University of Technology and the University of Linköping. In Germany, Outokumpu cooperates with the Universities of Krefeld, Mülheim, Bochum and Duisburg, all situated close to its major locations. Outokumpu participated in career fairs arranged by the schools and universities.

Outokumpu has a long tradition in offering summer jobs and traineeships in its major production locations in Finland, Germany and Sweden. By this, Outokumpu aims to further build its employer brand, and offer an opportunity to students to become acquainted with

Outokumpu as an employer and to learn about the job opportunities that Outokumpu offers. During the summer of 2013, the Group employed some 559 summer workers in Finland, mainly in Tornio, and approximately 165 in Sweden. In Germany, Outokumpu offered internships for 30 students close to graduation as engineer as well as technical and commercial apprenticeships in all its locations.

Outokumpu considers it is important to continue work to enhance the Group's employer brand, especially as the merger with Inoxum has created new challenges and opportunities in this field. Being the global leader in stainless steel requires a more global approach in terms of employer branding.

Wages and salaries by country ¹⁾

€ million	2013	2012 ²⁾	2011
Finland	154	165	174
Sweden	118	141	176
Britain	28	29	30
Germany	260	10	13
Other Europe	31	38	52
Other countries	119	35	27
Total	711	419	472

¹⁾Including continuing operations.

²⁾Wages and salaries for 2012 have been restated as a result of adoption of the revised IAS 19 Employee Benefits standard.

Economic impact

Salary payments including pensions and other benefits paid by Outokumpu in 2013 increased compared to the previous year by some 69% to EUR 711 million (2012: EUR 419 million euros) mainly because of the Innoxum acquisition. Bonuses received by Group person-

nel in 2013 amounted to EUR 40 million (2012: EUR 15 million). The Group's incentive plans are primarily based on operational or financial targets and vary by country.

Investors and analysts

Outokumpu's regular and active dialogue with global investors and analysts continued in 2013. The completion of the Innoxum transaction at the end of 2012, the disposal process of the Terni remedy asset as well as the new Outokumpu strategic roadmap met high interest from the capital markets. Towards the end of the year, the announcement of Outokumpu's plan to sell the Terni remedy assets as well as the VDM business to ThyssenKrupp and to further deleverage and strengthen its balance sheet by a comprehensive financial package was the key topic in investor discussions.

Outokumpu met investors and analysts at various events throughout the year. The Group organized the Annual General Meeting in March, and held quarterly results webcasts for investors and analysts for the Annual Accounts in February and for the interim reports in April, July and November. Outokumpu's representatives also attended seminars and conferences arranged by banks and organized roadshows

to meet investors. A total of 11 roadshows were arranged in Europe and in the US. In addition, Outokumpu hosted a Capital Markets Day in London in May 2013. The event was well attended by 68 investors and analysts. Three site visits for analysts and institutional investors were arranged in 2013, two to the chrome mine in Kemi and the stainless steel plant in Tornio, Finland and one to the new stainless steel plant in Calvert, USA. A total of over 200 one-on-one meetings, conference calls and video conferences with investors were held during the year.

Read more about Outokumpu share and shareholders, Outokumpu's activities in the capital markets and stock exchange releases in 2013 in the Annual Report in Shares and shareholders and Information for the investors on p. 126.

Local communities

Outokumpu is an important member of the community in most of the locations in which the Group has industrial operations. We are a major employer in for example in Avesta, Degerfors, Långshyttan (Kloster), and Eskilstuna (Nyby) in Sweden, in Sheffield in the UK, in Calvert and New Castle in the US and in the Kemi-Tornio region in Finland and in Benrath, Bochum, Dahlebrück, Dillenburg and Krefeld in Germany. A continuing dialogue is maintained with community officials and representatives, other commercial companies, and with schools and universities.

The new Outokumpu has new locations where we aim to implement our sustainability program and actively listen to local communities. Outokumpu's most significant impacts on local communities include direct and indirect employment as well as environmental and energy issues. These are also key topics in discussions with local community representatives. Emissions from the Group's plants are measured and strictly monitored, and effective corrective actions are taken if deviations from permitted limits occur. Both vigilance and a responsive attitude to issues that affect local communities and their concerns are important. For example, Tornio has implemented a publicly available particle monitoring system in the Tornio-Haparanda area in order to openly disclose information online.

In June 2013 Outokumpu celebrated the centenary of stainless steel in Sheffield, whereby the whole city of Sheffield was involved. There were exhibitions and lectures about stainless steel and its invention to feature the pioneering work done in Sheffield a hundred years ago. A series of open days and exhibitions were arranged for local school children and employees' family and friends. Some 800 people visited the site during the centenary celebrations. On June 11–12, Outokumpu participated in an international conference at Sheffield University with CEO Mika Seitovirta as the keynote speaker. The event was hosted by the British Stainless Steel Association and the Sheffield Metallurgical & Engineering Association.

In April, Outokumpu arranged a Girls' Day at the Krefeld and Dillenburg units. The aim of this yearly event is to give 14–16 year old girls interested in technical work a first insight to career possibilities in technical professions and the possibility to collect some practical experiences. The local initiative was inspired by the national yearly Girls' Day campaign established by the German government.

King Carl XVI Gustaf and Queen Silvia visited Outokumpu Degerfors in August. The royal visit took place as part of the King's anniversary trip around Sweden to celebrate the 40 years on the throne, at the same time aiming to highlight key names in industry, society and cul-

ture. The visit highlighted the role of the Degerfors site as an integral part of local society since the 1600s and today with an important investment project in quarto plate being ramped up.

Local concerns calmed down

During 2011–2012, one Swedish newspaper raised serious doubts about the health-related effects of Outokumpu's emissions in the Tornio-Haparanda area and wrote over 130 articles on Outokumpu's possible effects on inhabitants and the environment. This communication was against fact-based argumentation from health experts and authorities. During 2011–2013, Outokumpu participated in many local open forums and discussions with local inhabitants and NGOs. Outokumpu communicated locally in co-operation with health and environmental authorities and presented scientific views. The company also voluntarily built two on-line air quality measurement stations in Haparanda and Tornio with internet connections. These showed during 2013 that the local air quality was very good and no limit values exceeded. In parallel, the media coverage also significantly decreased. However, due to appeals in 2012 from Sweden against the new environmental permit of the Tornio site the permit case is still partly open and being processed by the authorities.

In December 2013, a peer-reviewed scientific study on cancer frequency among Outokumpu employees in Kemi-Tornio was published in the British Medical Journal. This internationally important occupational research showed that there is no risk of increased lung cancer or other cancer types caused by atmospheric exposures to dust or metal particles among the workers. These results together with health studies conducted since the 1980s show that there are no indications of occupational or other diseases caused by metal or other chemical exposures. These workers are the "worst-case scenario group" in relation to air emissions and metal concentrations, due to the fact that their level of exposure to air and emission-based chemicals is much higher than other local inhabitants.

In Germany, the permit for Marbach disposal site in Bochum Hamme created public concerns in 2013. To address the concerns, Outokumpu established a local voluntary advisory committee in Marbach for inhabitants to share information and views, including neighbors, NGOs and other interest groups. Plans regarding the closure of the Bochum melt shop caused local media attention at the end of 2013.

As a large employer, decisions regarding the Group's operations have a major impact on communities; not only on Outokumpu personnel and their families, but also on local goods suppliers and service providers. The current strategic investments in Calvert, US are in the final phase and continue to have a positive impact on the surrounding districts: during 2013 some 120 new employees were hired. Other recent investments include the EUR 410 million investment in the expansion of the Group's ferrochrome production in Tornio, and the EUR 100 million in increasing stainless quarto plate production capacity in Degerfors. Completion of the ferrochrome expansion and ramping up operations during 2012–2013 resulted in the addition of around 120 permanent jobs in the Kemi-Tornio region.

The Group's Kemi mine collaborates with several educational establishments in the training of engineers, miners, and supervisors. In Sheffield in the UK, apprenticeships have been offered to local colleges and student placements have been made available in the form of one-year programs. Outokumpu's employees have given presenta-

tions at local schools and universities and we have worked with local employment agencies to find positions for people within the Group. Schoolchildren and local students have been introduced to the Group's working environment through tours and discussions with employees.

Managing impacts on local communities

Traffic loads have an impact on local communities, with the Kemi-Tornio region and Sheffield being good examples. In Sheffield, Outokumpu is located very close to the UK's M1 motorway, and steps are taken to ensure that our operations have minimal impact on this primary transportation route. As the effects associated with the transportation of goods and raw materials can be major, the Group's logistical arrangements are carefully planned to avoid road congestion and minimize impacts on other road users. In recent years, increased transportation of alloys by rail has had a positive impact in connection with road traffic densities.

In Sheffield, representatives of the local police force, fire and emergency services, and national health organizations have attended a number of health and safety days organized for Outokumpu's employees. Local stakeholders are also taken into account in the Group's emergency planning.

Communication with employees on sites

Maintaining employee well-being is Outokumpu's aim, and productive dialogue is the key element in achieving this. Outokumpu's largest industrial sites have many similarities. In addition to regular meetings with personnel representatives, employees are met once or twice every year at special events. Daily operational meetings include reporting on health and safety and environmental issues. Actions to resolve these are usually taken immediately after completing a risk assessment. Management team members are encouraged to walk through Group facilities, including production plants, and to talk with employees engaged in manufacturing operations.

Production employees are represented by their unions in plant management discussions at Outokumpu Nirosta, Avesta and Sheffield. In Avesta, both formal and informal meetings are held at the plant level and on site on a regular basis. In the UK, trade union engagement at Outokumpu sites is active, with work on many issues, including health and safety, salaries, working hours, shift patterns, and other mutually beneficial issues, being conducted in close co-operation. Dialogue between the management team and an employee forum, a cross-functional group, takes place monthly. The issues raised are debated and action plans instituted. Nominated safety and union representatives are able to engage in direct and open dialogue with members of the plant management team. In Tornio, individuals heading large departments are members of the management team. Three personnel representatives are appointed as members of the board of Outokumpu Stainless Oy.

Outokumpu's UK sites arrange open days for employees' relatives, helping them to become familiar with the locations where their family members work. Quarterly health and safety and well-being sessions

are organized for employees and these incorporate the family-related aspects of their occupations. Close work with Fitness First Gym, which visits the Group's UK sites on a quarterly basis, reinforces well-being and fitness programs. At Avesta in Sweden, a recreation committee organizes a wide variety of events for both employees and their families, such as lectures and family days. Participation in sports such as biking, skiing, and swimming is sponsored. At Tornio in Finland, sporting events involving employees' children are organized in both the summer and winter. Personnel clubs, which reduce the costs associated with enjoying cultural and other events, are supported.

Well-being at work

The Ferrochrome Works in Tornio participated in the national "Good work – Longer career" project which is based on the collective agreement between the Federation of Finnish Technology Industries and the employee unions. The project aims at improving and developing

well-being at work by promoting work ability, controlling absenteeism, prolonging working careers and sharing best practices. Currently there are more than 70 participating companies.

The project in Tornio started with a survey which was conducted in March 2013 measuring different areas of well-being: own resources, management and leadership, training and development as well as work-life balance. Based on the survey results, the project team, consisting of management, employee representatives and members of Health, Safety and HR teams, identified development areas and prioritized the actions. The development work at Ferrochrome Works is seen as a continuous process and a new survey is planned for 2014. The project team welcomes all employees to participate in improving the everyday work. Change happens when everyone takes responsibility and acts towards a common goal.

Associations and federations

Outokumpu is an active and responsible actor in society. As the world's largest stainless steel producer, the Group's opinion is voiced in many forums.

In 2013, Outokumpu experts and top management continued to maintain effective liaisons with the authorities and numerous organizations. Top management participated in dialogue concerning issues such as social well-being, the global financial situation, megatrends and the future of the stainless steel business. Mika Seitovirta, Outokumpu's CEO, was an active participant in the discussions, especially those regarding society's role in creating an operative environment that can enhance development, knowledge, and investments. Within the Group, comprehension of approaches to social responsibility is expanded through active engagement with a variety of companies and organizations.

Outokumpu is a member of international organizations and confederations, including the World Economic Forum, Eurofer, EuroInox, EuroSlag, and the International Chromium Development Association. Outokumpu is also an associate member of the World Steel Association (worldsteel) and a member of the International Stainless Steel Forum (ISSF), a stainless-steel-specific sub-organization. Outokumpu provides relevant information to decision-makers and experts relating to the development of the business environment and legislation. The Group participates in the work of trade organizations. Outokumpu does not pressure or use hard lobbying on decision-makers. As a member of Eurofer, worldsteel and ISSF, Outokumpu participates in different policy groups whose aim is to provide expertise and help decision-makers in connection with issues such as the global mitigation of greenhouse gas emissions by the iron and steel industry. In these forums, members share best practices and obtain benchmark data relating to, among other things, the environment, R&D, product life-cycles, product and chemical safety, and occupational safety.

Members also contribute their own data for use in official industry or authority reports, such as the World Steel Association Sustainability Report.

In Europe, Outokumpu is a member of several federations and associations in Finland, France, Germany, Italy, Sweden, the Netherlands, and the UK. National cooperation organizations advance industry views and contribute to legislation in Europe through national representatives in EU governing bodies. Outokumpu is also a member of business associations in North America and Australia.

Eurofer and EuroSlag are collaborative organizations within the European iron and steel industry. Outokumpu contributes to Eurofer's commercial and trade issues at the presidency level, in committees which handle statistics, research and the environment, and in working groups which focus on issues such as climate change, air quality, water, and waste. Eurofer conveys opinions to EU governing bodies (the European Commission, the European Parliament, and the European Council), and promotes measures such as the renewal of the Integrated Pollution Prevention and Control IPPC Directive, the implementation of REACH (the Registration, Evaluation and Authorisation of Chemicals), and continuation of the European Emissions Trading Scheme (EU ETS). EuroSlag performs a similar role in issues related to slag and by-products.

Outokumpu is also active in corporate responsibility networks. To develop our expertise in corporate responsibility and improve Group performance, Outokumpu belongs to both the Finnish Business & Society company network and CSR Europe. To combat corruption and bribery, the Group participates in Transparency Finland, a national chapter of Transparency International. Outokumpu is a signatory to the International Chamber of Commerce (ICC) charter, follows and supports the United Nations Global Compact, and is an active mem-

ber of the UN Global Compact Nordic Network. To demonstrate the Group's support for sustainability, Outokumpu has signed the World-steel Sustainable Development Charter and the ISSF's Sustainable Stainless Charter. Although countering bribery and corruption are

clearly defined in the Group's publicly available Code of Conduct, participation in these networks is a way to promote progress throughout the whole business landscape, also outside the Group's own supply chain.

Total grants and community support in 2013 amounted to some EUR 0.4 million.

Outokumpu does not take part in or otherwise support political activities, whether they are local, communal, or national. Outokumpu does not make donations to any political parties or groups.

Public sector, sponsoring and NGOs

Outokumpu contributes to the well-being of local, national, and international communities through tax payments, through direct and indirect employment, and by participating in other societal activities.

In 2013, taxes and social security contributions paid by the Group totaled EUR 98 million (2012: EUR 57 million). In 2013, Outokumpu posted a loss and thus also the amount of taxes paid remained low, some EUR 4 million for the financial year (2012: EUR 4 million). The impact of taxes on societal well-being is both direct and indirect.

Taxes and social dues by country ¹⁾

€ million	2013	2012	2011
Finland	8	8	10
Sweden	23	31	31
Other Europe	54	16	18
Other countries	14	3	3
Total	98	57	62

¹⁾ Including continuing operations.

Public sector support received

In 2013, Outokumpu received some EUR 0.6 million (2012: EUR 0.9 million) from the public sector to support Group research and development of new technologies, products, and applications.

External R&D collaboration

Outokumpu has an extensive network of external R&D partners and participates in both national and international research programs. Outokumpu is a member of the European Steel Technology Platform (ESTEP). Examples of research programs Outokumpu is participating in include the Finnish Mechanical and Engineering Competence Cluster (FIMECC), Research Fund for Coal and Steel (RFCS) and Jernkontoret (the Swedish Steel Producers' Association). In Germany we are collaborating with various universities and research institutes, among others with the Fraunhofer Institute and the Max-Planck-Institut für Eisenforschung.

Grants and community support given

Outokumpu supports higher education and research by donating funds to universities. In 2013, the co-operation between Aalto University, a new multidisciplinary science and art community, proceeded in the fields of science, economics, art, and design. Outokumpu has supported Aalto University from the establishment of the institution, including an initial fund donation of EUR 1 million.

Co-operation with Aalto University offers Outokumpu the chance to harness top-level know-how and a multidisciplinary approach. Aalto's core research fields – materials research and design – will round out Outokumpu's in-house R&D, offering new opportunities for innovation and exchanging know-how.

Outokumpu is one of the founders of the Technology Industries of Finland Centennial Foundation Fund for the Association of Finnish Steel and Metal Producers, established by five Finnish steel and metal producing companies. The fund was founded to promote university-level research and teaching of technology and business opportunities in metals production. In 2013, the fund awarded grants of some EUR 0.3 million.

For example Outokumpu has participated in the research project Metric under the FIMECC consortium and one of the project outcomes in 2013 was a thesis studying industrial investments in a sustainability framework. This new approach aimed to quantify investment and changes to the industrial set up from social, economic and environmental dimensions in one model. This type of open attitude towards harnessing of new ideas describes Outokumpu's open innovation management approach very well.

Sponsoring

As defined in Outokumpu's sponsorship policy, the Group's sponsorship decisions are based on clearly defined pre-conditions of strategic, brand image, and sustainability criteria. Outokumpu also makes discretionary donations for the common good as a responsible corporate citizen. These donations are organized by sustainability management and approved by the Leadership Team or by the Board of Directors.

Dialogue with environmental NGOs continued

In 2013, Outokumpu faced the fact that a significantly expanded global presence required us to map and identify new NGO counterparties. Therefore, Outokumpu conducted NGO mapping in order to identify new NGOs and to review the existing NGOs. The study concentrated into the impactfulness, size and regional presences of NGOs against pre-defined material sustainability issues and regions and countries of Groups operations. This study also serves as starting point for stakeholder dialogue in the context of the new Outokumpu and gives a good reference group for the next update of Outokumpu materiality analysis.

In addition, Outokumpu continued its dialogue with environmental NGOs as a standard process. Issues that were discussed included the role of steel recycling and sustainable stainless steel in tackling the major challenges that we face as a mankind; climate change, resource and energy scarcity together with urbanization and population growth. As a result, Outokumpu aims to increase further the transparency and information related to these issues and our products sustainability properties.

Reporting on sustainable development

Outokumpu produces stainless steel, a sustainable material, by using a sustainable production chain in a responsible manner.

The Group's corporate responsibility principles cover all aspects of Outokumpu's operations and strategy and are also integrated into the way that we conduct our business. Outokumpu aims for open and transparent communications. Outokumpu's reporting reflects the view that all of the Group's operations – and our dialogue with stakeholders – must be based on ethical and sustainable business practices, since these provide the basis for our long-term competitiveness.

This year 2014 becomes 39 years since the first environmental report of Outokumpu was published 1975. Since 2003 Group has published external sustainability report covering social, economic and environmental dimension annually. These reports are available in digital form at Outokumpu Sustainability web pages.

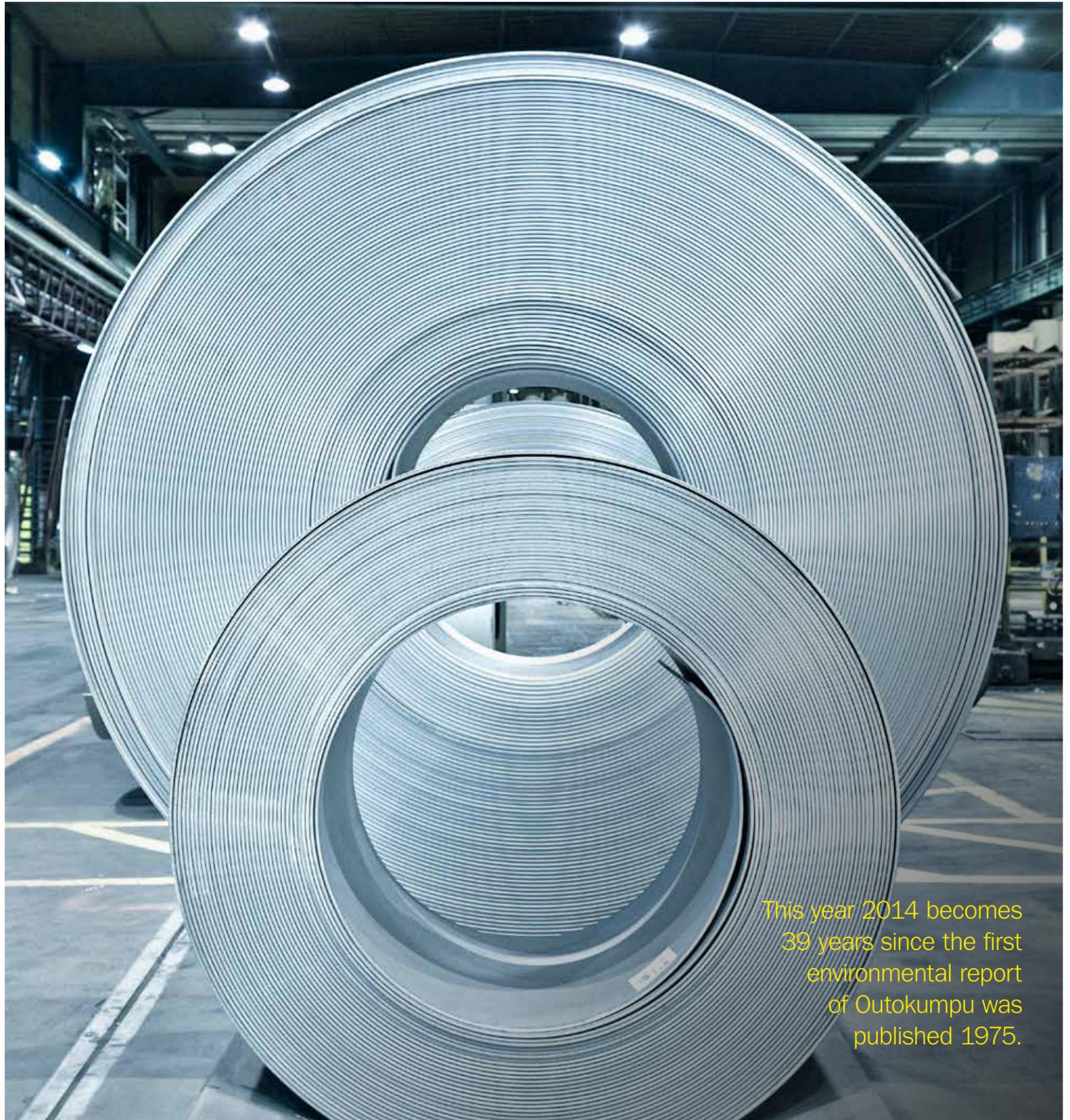
The report presents the Group's relevant and material sustainability issues. Issues on Sustainable development and Corporate responsibility requirements are reported openly and transparently following the Global Reporting Initiative (GRI) G3 guidelines.

This sustainability reporting has been assured by an external assurance provider. This report includes a separate GRI and UN Global Compact reporting index, where all the indicators regarding responsibility practices are listed together with links to the pages on which they are addressed.

Outokumpu's Annual Report also meets other requirements within sustainability reporting. Outokumpu decided to adopt the ISO 26 000 "Guidance on social responsibility" standard. This is the second report in which we have the ISO 26 000 core subjects and issues comparison table together with GRI reporting index.

The Group is a signatory to the UN Global Compact. Outokumpu also follows International Chamber of Commerce policies by utilizing ISO-based management systems in connection with issues relating to Environment, Health and Safety and Quality management. Read more about the Group's social responsibility.

The Group has also signed the Sustainable Development Charter published by the World Steel Association and the International Stainless Steel Forum. Together with the Group's internal policies and practices these frameworks have requirements for external reporting, which have been taken into account in this Sustainability Report.



This year 2014 becomes 39 years since the first environmental report of Outokumpu was published 1975.

Focus on material issues

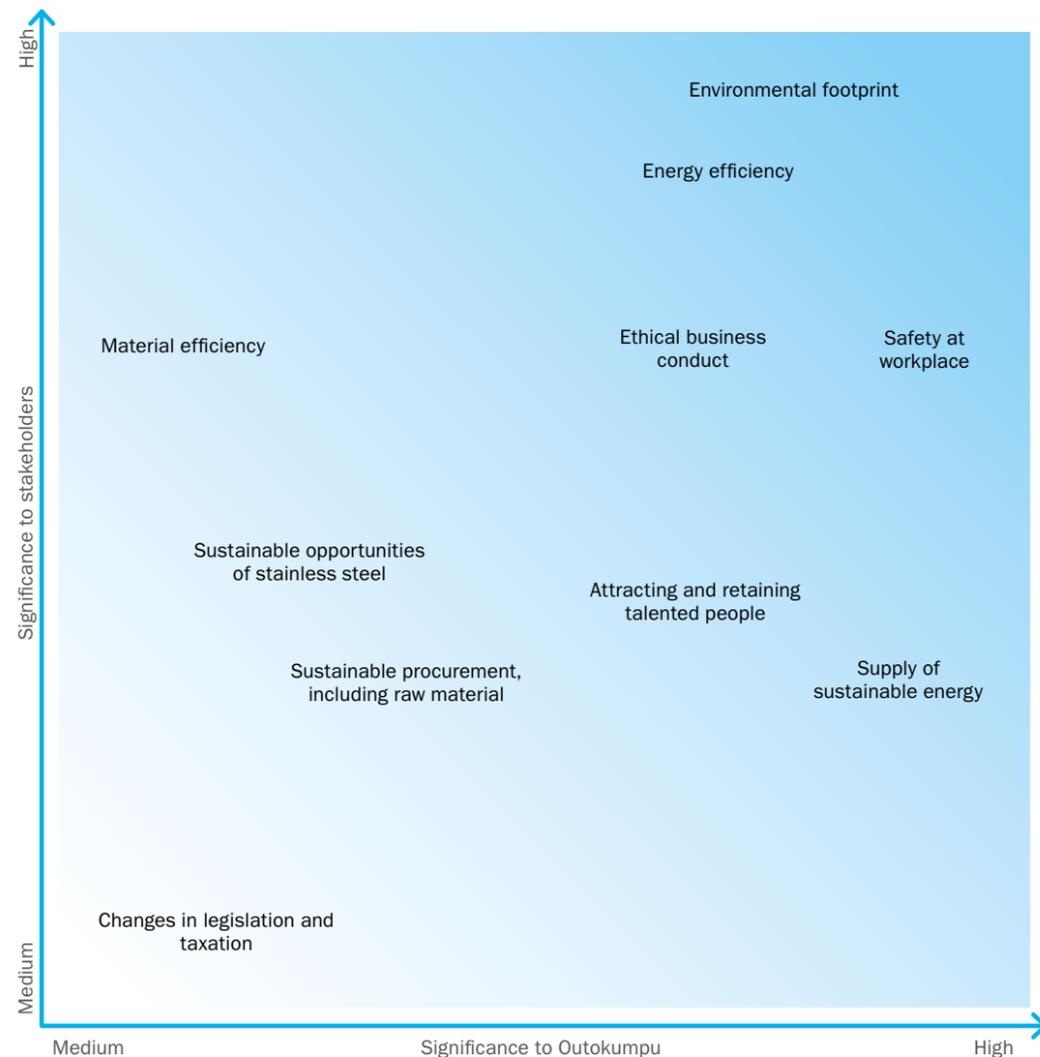
To ensure that limited resources are allocated in the most efficient manner, Outokumpu analyzed the most material sustainability issues. The results of this analysis, which identified the internal and external issues most relevant to the Group, formed a natural basis for sustainability-related actions and developments in 2013.

The results of the materiality analysis, issues with high significance for both Outokumpu and the Group's stakeholders, were mostly those which have been on Outokumpu's sustainability agenda in previous years. This confirms that we are working with the correct issues and that further improvements are still needed. The analysis process has helped the Group initiate new actions and programs in an optimal manner. During 2013, Outokumpu took action in connection with all

issues identified as having a material significance and related developments are detailed in this report.

The Outokumpu Board of Directors reviewed the sustainability analysis and related actions in two meetings during 2013, and reviewed and approved updated Groups ethical statement at its December 2013 meeting. According to the Group policy on sustainable development and corporate responsibility, the Board of Directors' monitors Outokumpu's corporate responsibility performance at least once each year based on a report submitted by the CEO. This arrangement ensures that sustainability issues are an integral element in Outokumpu operations from the lowest to the highest levels.

Focus on material issues



GRI and UN Global Compact

We have self-declared our reporting to be Application Level B+ of the GRI G3 Guidelines. PricewaterhouseCoopers Oy has checked our reporting and has confirmed it to be Application Level B+

GRI profile disclosures	INCL.	Annual Report/Sustainability Report section 2013	Global Compact 26000	ISO 26000	Comment
1.Strategy and Analysis					
1.1	Yes	CEO's statement		6.2	
1.2	Yes	Key impacts, risks and opportunities		6.2	CEO's foreword (SR, p. 1), Risks and stakeholders (SR p. 48), Climate change risks (SR p. 23), Environmental goals and results (SR p. 14-15), Goals and results (SR p. 38), Focus on material issues (SR p. 58)
2.Organizational Profile					
				6.2	
2.1	Yes	Name of the organization	Corporate information (AR p. 39)	6.2.1-6.2.3	
2.2	Yes	Primary brands, products and services	Corporate information (AR p. 39)	6.2.1	
2.3	Yes	Operational structure	Corporate governance statement (AR p. 112)	6.2.1	
2.4	Yes	Location of organization's headquarters	Corporate information (AR p. 39)	6.2	
2.5	Yes	Number of countries and location of operations	Market environment (AR p. 8-9)	6.2	
2.6	Yes	Nature of ownership and legal form	Corporate governance statement (AR p. 112)	6.2	
2.7	Yes	Markets served	Market environment (AR p. 8-9)	6.7.1	
2.8	Yes	Scale of the reporting organization	Key figures and highlights (AR p. 3)	6.2	
2.9	Yes	Significant changes regarding size, structure or ownership	Review by the Board of Directors (AR p. 16)	6.2	
2.10	Yes	Awards received in the reporting period	No awards received in the reporting period.	6.2	
3.Report Parameters					
3.1	Yes	Reporting period	Reporting principles (SR p. 65)		
3.2	Yes	Date of most recent report	Reporting principles (SR p. 65)		
3.3	Yes	Reporting cycle	Reporting principles (SR p. 65)		
3.4	Yes	Contact point for questions regarding the report	Reporting principles (SR p. 65)		
3.5	Yes	Process for defining report content	Reporting principles (SR p. 65), Focus on material issues (SR p. 58)		
3.6	Yes	Boundary of the report	Reporting principles (SR p. 65), front inside cover		
3.7	Yes	Limitations on the report's scope or boundary	Reporting principles (SR p. 65)		
3.8	Yes	Basis for reporting subsidiaries and joint ventures	Reporting principles (SR p. 65)		
3.9	Yes	Data measurement techniques and bases of calculations	Reporting principles (SR p. 56, 66)		
3.10	Yes	Explanation of re-statements	Reporting principles (SR p. 56, 66)		
3.11	Yes	Significant changes from previous reporting periods in the scope, boundary or measurement methods	Reporting principles (SR p. 56, 66)		
3.12	Yes	GRI content index	GRI and UN global compact (SR p. 59-64)		
3.13	Yes	Assurance policy and practice	Reporting principles (SR p. 65), Independent Assurance Report (SR p. 67)	7.5.3	

GRI profile disclosures	INCL.	Annual Report/Sustainability Report section 2013	Global Com-pact	ISO 26000	Comment
4. Governance, Commitments and Engagement					
Governance					
4.1	Yes	Governance structure of the organisation	Corporate governance statement (AR p. 115-116)	6.2	
4.2	Yes	Position of the Chairman of the Board	Board of Directors (AR p. 14)	6.2	
4.3	Yes	Independence of the Board members	Board of Directors (AR p. 14-15)	6.2	
4.4	Yes	Mechanism for shareholder and employee consultation	Corporate governance statement (AR p. 112), Open communication (SR p. 39)	6.2	
4.5	Yes	Executive compensation and linkage to organization's performance	Corporate governance statement (AR p. 115)	6.2	
4.6	Yes	Processes for avoiding conflicts of interest	Corporate governance statement (AR p. 114)	6.2	
4.7	Yes	Processes for determining expertise	Corporate governance statement (AR p. 114)	6.2	
4.8	Yes	Implementation of mission and values statements, code of conduct and other principles	CEO's foreword (SR, p. 1), Firm steps forward (SR p.3), Our people (SR p. 34)	6.2	
4.9	Yes	Procedures of the Board for overseeing management of sustainab. perform., incl. risk management	Corporate governance statement (AR p. 119-120)	6.2	
4.10	Yes	Processes for evaluating the Board's performance	Corporate governance statement (AR p. 113)	6.2	
Commitments to External Initiatives					
4.11	Yes	Addressing precautionary approach	Risk management (AR p. 120), Climate change risks (SR p. 23), Product life cycle (SR p. 8)	7	6.5
4.12	Yes	Voluntary charters and other initiatives	Outokumpu and society (SR p. 46), Associations and federations (SR p. 53)		
4.13	Yes	Memberships in associations	Outokumpu and society (SR p. 46), Associations and federations (SR p. 53)		
Stakeholder Engagement					
4.14	Yes	List of stakeholder groups	Risks and stakeholders (SR p. 48)	6.8	
4.15	Yes	Identification and selection of stakeholders	Risks and stakeholders (SR p. 48)	6.8	
4.16	Yes	Approaches to stakeholder engagement	Outokumpu and society (SR p. 46)	6.8	Approaches to stakeholder engagement are presented under the sections describing various stakeholders.
4.17	Yes	Key topics raised through stakeholder engagement	Customers (SR p. 49), Local communities (SR p. 51-52), Our people (SR p. 34)	6.8	
5. Management Approach and Performance Indicators					
Management approach to economic responsibility					
Management approach to economic responsibility	Yes	Review by the Board of Directors 2013 (AR p. 16), CEO's review (AR p. 1), Risks and uncertainties (AR p. 121-124), Corporate Governance statement (AR, p. 117-118)		1, 4, 6, 7	6.2
Management approach to environmental responsibility					
Management approach to environmental responsibility	Yes	Our impact on the environment (SR p. 10-13), Environmental goals and results (SR p. 14-15), Climate change risks (SR p. 23-24), Corporate Governance statement (AR p. 120-123)		7, 8, 9	6.5
Management approach to labor practices and decent work					
Management approach to labor practices and decent work	Yes	Our people (SR p. 34), Goals and results (SR p. 38), Operational risks (AR, p. 124), Training and development (SR p. 40), Corporate Governance statement (AR, p. 117-118)		1, 3, 6	6.4
Management approach to human rights					
Management approach to human rights	Yes	Our people (SR p. 34), Corporate Governance statement (AR p. 117-118), Diversity and equal rights (SR, p. 38)			6.3
Management approach to society					
Management approach to society	Yes	Local communities (SR p. 51-53), Corporate Governance statement (AR p. 117-118)			6.8
Management approach to product responsibility					
Management approach to product responsibility	Yes	Corporate Governance statement (AR p. 117-118), Customers (SR p. 49), Product properties (SR p. 6), Safe use of stainless (SR p. 9)			6.7

GRI profile disclosures	INCL.	Annual Report/Sustainability Report section 2013	Global Com-pact	ISO 26000	Comment
Economic Performance Indicators					
Economic Performance					
EC1*	Yes	Direct economic value generated and distributed	Outokumpu and society (SR p. 46), Public sector, sponsoring and NGOs (SR p. 54)		6.8
EC2*	Yes	Risks and opportunities due to climate change	Climate change risks (SR p. 23-24)	7	6.8
EC3*	Partly	Coverage of defined benefit plan obligations	25. Employee benefit obligations (AR p. 86-87)		6.4
EC4*	Yes	Significant subsidies received from government	Public sector, sponsoring and NGOs (SR p. 54), Share development and shareholders (AR p. 26)		6.8
Market presence					
EC5	No	Entry level wage compared to minimum wage		1	
EC6*	No	Spending on local suppliers			
EC7*	No	Local hiring		6	
Indirect Economic Impacts					
EC8*	No	Infrastructure investments provided for public benefit			
EC9	Yes	Significant indirect economic impacts	Local communities (SR p. 51-53)		
Environmental Performance Indicators					
Materials					
EN1*	Yes	Materials used by weight or volume	Material balance (SR p. 18)	8	6.5
EN2*	Yes	Recycled materials used	Product properties (SR p. 6), Material balance (SR p. 18)	8, 9	6.5
Energy					
EN3*	Yes	Direct energy consumption	Material balance (SR p. 18), Energy efficiency (SR p. 19)	8	6.5
EN4*	Partly	Indirect energy consumption	Material balance (SR p. 18), Energy efficiency (SR p. 19)	8	6.5
EN5	Yes	Energy saved due to conservation and efficiency improvements	Energy efficiency (SR p. 19)	8, 9	6.5
EN6	Partly	Initiatives to provide energy-efficient or renewable energy based products and services	Energy efficiency (SR p. 19)	8	6.5
EN7	Yes	Initiatives to reduce indirect energy consumption	Sustainable supply chain (SR p. 32), Climate change (SR p. 22)	8	6.6.6
Water					
EN8*	Yes	Total water withdrawal	Water (SR p. 29)	8	6.5
EN9	Yes	Water sources significantly affected by withdrawal of water	Water (SR p. 29)	8	6.5
EN10	Partly	Percentage and total volume of water recycled and reused	Water (SR p. 29)	8, 9	6.5
Biodiversity					
EN11*	Partly	Location and size of land holdings in areas of high biodiversity	Biodiversity (SR p. 30)	8	6.5
EN12*	Yes	Description of significant impact of activities, products, and services on biodiversity	Biodiversity (SR p. 30)	8	6.5
EN13	Yes	Habitats protected or restored	Biodiversity (SR p. 30)	8	6.5
EN14	Yes	Managing impacts on biodiversity	Biodiversity (SR p. 30)	8	6.5
EN15	Yes	Species with extinction risk with habitats in areas affected by operations	Biodiversity (SR p. 30)	8	6.5
Emissions, Effluents and Waste					
EN16*	Yes	Total direct and indirect greenhouse gas emissions	Material balance (SR p. 18), Emissions, effluents and waste (SR p. 28)	8	6.5
EN17*	Yes	Other relevant indirect greenhouse gas emissions	Climate change (SR p. 22)	8	6.5

GRI profile disclosures		INCL.	Annual Report/Sustainability Report section 2013	Global Compact	ISO 26000	Comment
EN18	Initiatives to reduce greenhouse gas emissions	Yes	Climate change (SR p. 22), Environmental goals and results (SR p. 15)	7, 8, 9	6.5	
EN19*	Emissions of ozone-depleting substances	Yes	Material balance (SR p. 18)	8	6.5	
EN20*	NOx, SOx, and other significant air emissions	Yes	Material balance (SR p. 18), Emissions, effluents and waste (SR p. 27)	8	6.5	
EN21*	Total water discharge	Yes	Water (SR p. 29)	8	6.5	
EN22*	Total amount of waste	Yes	Material balance (SR p. 18)	8	6.5	
EN23*	Significant spills	Yes	Emissions, effluents and waste (SR p. 25)	8	6.5	
EN24	Transported, imported, exported, or treated hazardous waste	Partly	Materials efficiency (SR p.16)	8	6.5	
EN25	Water bodies and habitats affected by discharges of water	Partly	Water (SR p. 29)	8	6.5	
Products and Services						
EN26*	Mitigating environmental impacts of products and services	Yes	Environmental goals & results (SR p. 15), Materials efficiency (SR p. 15-16)	7, 8, 9	6.5	
EN27*	Reclaimable products and reuse	No	Product properties (SR p. 6)	8, 9		
Compliance						
EN28*	Significant fines and sanctions for non-compliance with environmental regulations	Yes	Emissions, effluents and waste (SR p. 25)	8	6.5	
Transport						
EN29	Environmental impacts of transportation	Yes	Sustainable supply chain (SR p. 31-32)	8	6.5	
Overall						
EN30	Total environmental protection expenditures and investments	Yes	Environmental investments (SR p. 33)	7, 8, 9	6.5	

Social Performance Indicators

Labor Practices and Decent Work

Employment

LA1*	Total workforce by employment type, employment contract and region	Partly	Focus on company turnaround (SR p. 36-37)		6.4	
LA2*	Total number and rate of employee turnover	Partly	Focus on company turnaround (SR p. 36)	6	6.4	
LA3	Employee benefits	No				

Labor/Management Relations

LA4*	Coverage of collective bargaining agreements	Yes	Diversity and equal rights (SR p. 38)	1, 3	6.3, 6.4	
LA5*	Minimum notice period regarding operational changes	Yes	Focus on company turnaround (SR p. 36)	3	6.4	

Occupational Health and Safety

LA6	Representation in joint health and safety committees	Partly	Local communities (SR p. 51)	1	6.4	
LA7*	Rates of injury, occupational diseases, lost days, fatalities and absenteeism	Yes	Safe working environment (SR, p. 42)	1	6.4	
LA8*	Education and prevention programmes regarding serious diseases	Partly	Local communities (SR p. 51)	1	6.4	
LA9	Health and safety topics covered in formal agreements with trade unions	No		1		

Training and Education

LA10*	Average training hours per year	Partly	Training and development (SR p. 40)		6.4	
LA11	Programmes for skills management and lifelong learning	Yes	Training and development (SR p. 40)		6.4	
LA12	Employees receiving regular performance and career development reviews	No	Performance management (SR p. 40)		6.4	

Diversity and Equal Opportunity

GRI profile disclosures		INCL.	Annual Report/Sustainability Report section 2013	Global Compact	ISO 26000	Comment
LA13*	Composition of governance bodies and breakdown of employees	Yes	Focus on company turnaround (SR p. 36), Diversity and equal rights (SR p. 38)	1, 6	6.4	Breakdown of total workforce by gender, age and education. Composition of governance bodies by gender.
LA14*	Ratio of basic salary of men to women by employee category	No		1, 6		
Human Rights						
HR1*	Investment agreements with human rights clauses or that have undergone human rights screening	No		1-2, 4-6		
HR2*	Suppliers and contractors that have undergone human rights screening	Partly	Sustainable supply chain (SR p. 31-32)	1-2, 4-6	6.6	
HR3	Human rights related training for employees	No		4, 5		
HR4*	Incidents of discrimination and actions taken	Yes	Internal Audit (AR p. 124)	1, 2, 6	6.4	
HR5*	Supporting right to freedom of association and collective bargaining in risk areas	Yes	Diversity and equal rights (SR p. 38)	1, 2, 3	6.4	No major risks were identified during the audits of units or systems.
HR6*	Measures taken to eliminate child labour in risk areas	Yes	Diversity and equal rights (SR p. 38), Internal audit (AR p. 124)	1, 2, 5	6.4	No major risks were identified during the audits of units or systems.
HR7*	Measures taken to eliminate forced labour in risk areas	Yes	Diversity and equal rights (SR p. 38), Internal audit (AR p. 124)	1, 2, 4	6.4	No major risks were identified during the audits of units or systems.
HR8	Human rights related training for security personnel	No		1, 2		
HR9	Incidents involving rights of indigenous people and actions taken	No		1, 2		
Society						
Community						
S01*	Managing impacts of operations on communities – also issues of Mining and Metals supplement notes	Partly	Local communities (p. 51)		6.8	
Corruption						
S02*	Business units analyzed for corruption risks	Yes	Internal Audit (AR p. 124)	10	6.6, 6.2	
S03*	Anti-corruption training	No		10		
S04*	Actions taken in response to incidents of corruption	No		10		
Public Policy						
S05*	Public policy positions and participation in public policy development and lobbying	Yes	Associations and federations (SR p. 53)	10	6.6, 6.8	
S06	Contributions to political parties and related institutions	Yes	Outokumpu and society (SR p. 46)	10	6.8	
S07	Legal actions for anti-competitive behaviour, anti-trust, and monopoly	Yes	Review by the board of directors (AR p. 25)		6.6	
Compliance						
S08*	Fines and sanctions for non-compliance with laws and regulations	No			6.6	
Product Responsibility						
Customer Health and Safety						
PR1*	Assessment of health and safety impacts of products	Yes	Safe use of stainless (SR p. 9)	1	6.7	
PR2	Non-compliance with regulations concerning health and safety impacts of products	No		1		
Product and Service Labeling						
PR3*	Product information required by procedures	Partly	Safe use of stainless (SR p. 9)	8	6.7	
PR4	Non-compliance with regulations concerning product information and labelling	No		8	6.6	
PR5	Customer satisfaction	Yes	Customers (SR p. 49)		6.7	
Marketing Communications						

GRI profile disclosures		INCL.	Annual Report/Sustainability Report section 2013	Global Compact	ISO 26000	Comment
PR6*	Adherence to marketing communications laws, standards and voluntary codes	No				
PR7	Non-compliance with marketing communications regulations and voluntary codes	No				
Customer Privacy						
PR8	Complaints regarding breaches of customer privacy	No		1		
Compliance						
PR9*	Fines for non-compliance concerning the provision and use of products and services	No				
Mining and Metals supplement						
MM4	Number of strikes and lock-outs exceeding one week's duration, by country	Partly	Diversity and equal rights (SR p. 38)		6.3	
MM11	Programs and progress relating to materials stewardship	Yes	Product life cycle (SR p. 8), Safe use of stainless (SR p. 9), Local communities (SR p. 51)		6.7	

* GRI Core indicator

Reporting principles

In Outokumpu's reporting, the goal is to support open dialogue between the Group and its stakeholders. Our aim is to address the needs of current and future personnel, shareholders, customers, and other parties who have an interest in Outokumpu and its business operations.

We use reporting as an opportunity to illustrate what Outokumpu has done to ensure that the Group's business operations are sustainable, and to indicate actions we expect to take in the future to enhance individual well-being and the natural environment. Outokumpu has a long history of responsible business practices and we are working to make our operations more sustainable. As well as reporting on matters we consider important and relevant to our business operations, we also cover current global themes, which affect the Group's operations and our stakeholders.

If you have questions regarding the content of this report, please contact Outokumpu communications (corporate.comms@outokumpu.com).

Scope of the report

The closing of the Innoxum transaction took place on December 28, 2012. The new Outokumpu as a combined entity started its operation in December 29, 2012. On November 30, 2013, Outokumpu announced the divestment of Terni assets, VDM business and certain service centers which have been classified as discontinued operations in the financial statements for 2013. Sustainability Reporting for 2013 is based on the continuing operations of Outokumpu, unless otherwise stated.

Outokumpu's Sustainability report is published annually, and the reporting period is the same as the Group's financial reporting period (one calendar year). This report for 2013 was published on March 6, 2014 together with the 2013 Outokumpu Annual Report. The previous report for 2012 was published on February 25, 2012.

For 2013, the Group's Sustainability Report has been published as a stand-alone report.

Since 2004, Outokumpu's reporting has been based on guidelines provided in the widely-recognized and applied Global Reporting Initiative (GRI) G3 guidelines from 2007, but the reporting format now used by Outokumpu does not follow the tripartite division into economic, social, and environmental responsibility suggested by GRI.

A comparison of Outokumpu's reporting against the GRI 3.0 guidelines and the 10 principles of the UN Global Compact together with ISO 26 000 core issues can be found on the GRI and UN Global Compact section.

Comparability of statistics

Corrections made to figures reported in previous years are indicated in conjunction with the corrected figures. Since 2007, Outokumpu's Annual Reports have included an assurance report submitted by independent external assurance providers. This independent assurance report is available on p. 67. Figures in the financial statements under the section Financials in the Annual Report 2013 have been audited.

Measurement techniques

Economic responsibility

Most figures relating to economic responsibility presented in this report are based on consolidated financial statements issued by the Outokumpu Group and collected through Outokumpu's internal consolidation system. Financial data has been prepared in accordance with International Financial Reporting Standards (IFRS). Outokumpu's accounting principles for the Group's consolidated accounts are available in Note 2 to the consolidated financial statements.

The economic responsibility measures presented in the report for 2013 are not comparable to those of 2012 and 2011 due to Outokumpu's acquisition of Innoxum, the stainless steel business of ThyssenKrupp in December 2012. As all measures are based on Group's consolidated financial information, only 2013 includes the effect of Innoxum, whereas 2012 and 2011 are presented as Outokumpu stand-alone. All 2013 measures include only continuing operations, excluding the Terni remedy assets, VDM business and certain European service centers, as defined in the 2013 financial statements.

All financial figures presented have been rounded, and consequently the sum of individual figures may deviate from the presented aggregate figure. Key figures have been calculated using exact figures.

Using the GRI guidelines as a basis, economic responsibility figures have been calculated as follows:

GENERATION OF VALUE ADDED

Sales invoiced to customers during the financial year are used when calculating the generation of value added. Discounts or indirect taxes are deducted from sales figures.

The cost of goods and services purchased by Outokumpu during the financial year is deducted from sales when calculating the generation of value added by the Group.

DISTRIBUTION OF VALUE ADDED

Value added which is distributed to employees consists of wages and salaries paid to Outokumpu employees during the financial year. Pension payments and related accruals are included in this figure. Outokumpu adopted the revised IAS 19 Employee benefits in 2013. However, this resulted only to immaterial restatements in 2012 as the previously allowed corridor method had been waived already in 2012.

The distribution of value added to the public sector includes taxes, social charges, and other payments which resemble taxes. No deferred taxes are included in this figure.

To determine creditors' share of value added, interest costs on debt booked during the financial year are presented. Capitalized interest is deducted from this figure.

The distribution of value added to shareholders is the total dividend which Outokumpu's Board of Directors proposes for distribution to shareholders from the parent company's distributable funds.

Environmental responsibility

Financial information related to environmental investments is collected in accordance with Group-wide unified guidance following principles outlined by the GRI and the World Steel Association.

Environmental data concerning Outokumpu's operations is aggregated using the Group's Energy and Environment Reporting System, into which Group guidance has been integrated.

Environmental data and reporting covers Outokumpu's stainless steel, ferrochrome and mining operations, including the continuing operations of the combined company of Outokumpu and Inoxum. The environmental data from 2011–2012 has been adjusted to include combined operations, unless otherwise stated. The baseline data from 2007–2009, used as basis for long-term targets, has also been restated to include the combined data. The environmental figures do not include discontinued operations (Terni remedy assets and VDM business).

Outokumpu made extra effort in order to form fully comparable environmental and energy figures. The aim was to report as openly, comparable and complete manner as possible follow GRI principle to publish reporting from the two previous years, in addition to the reporting year.

Social responsibility

Health and safety figures

LOST TIME INJURIES (LTI) PER MILLION HOURS WORKED (THE WORLD STEEL ASSOCIATION PRINCIPLE)

A lost time injury is an injury or accident that has taken place during working hours at the workplace and caused at least one sick leave day (excluding the day of the injury or accident). Sick leave of one day means that an Outokumpu employee or a person employed by a third party has not been able to return to work on their next scheduled working day. Returning to work with activity restrictions does not constitute lost-time injury status, regardless of how severe or minimal the associated restrictions.

EU AVERAGE LTI

From statistics supplied by the World Steel Association. Member companies follow the World Steel Association definition of losttime injury (LTI) in related reporting.

NEAR MISS INCIDENTS

Near miss incidents refer to events that could have led to an accident but no injury occurred. The number of near miss incidents occurring in all Group companies is collected via Outokumpu's financial

consolidation system. Related information is provided by the Group's safety reporting system.

SICK LEAVE DAYS

Sick leave days reported are total sick leave days during a reporting period. Reporting units provide data on absence due to illness, injury and occupational diseases on a monthly basis in connection with financial reporting. With effect from January 1, 2009, sick leave days have been reported per million hours worked, not as a percentage figure.

Health and safety figures from 2013 include the VDM business but not Terni remedy assets. Health and safety figures reflect the scope of Outokumpu operations as they were in 2013, including the VDM business but not the ring-fenced Terni operations. The comparison year (2012) figures have not been adjusted, but include Outokumpu stand-alone before the completion of the Innoxum acquisition.

Personnel figures

From 2011, the Group has been reporting actual headcounts. This has also been applied in calculating most of the personnel figures.

TOTAL PERSONNEL COSTS

This figure includes wages, salaries, bonuses, social costs or other personnel expenses, as well as fringe benefits paid and/or accrued during the reporting period.

TRAINING COSTS

Training costs include external training-related expenses such as participation fees. Wages, salaries, and daily allowances for participants in training activities are not included, but the salaries of internal trainers are included.

TRAINING DAYS PER EMPLOYEE

The number of days spent by an employee in training when each training day is counted as lasting eight hours.

BONUSES

A bonus is an additional payment for good performance. These figures are reported without social costs or fringe benefits.

PERSONNEL TURNOVER

((newly hired + leavers)/2)/year end headcount

Compared to 2011, the formula has been specified in order to unify it with the formula recommended by KILA (Kirjanpitolahtakunta).

Days lost due to strikes

The number of days lost due to strikes is calculated by multiplying the number of Outokumpu employees who have been on strike by the number of scheduled working days lost. The day on which a strike starts is included.

All personnel figures include Outokumpu personnel in the continuing operations and do not therefore include Terni remedy assets or VDM business that Outokumpu announced to divest in November 2013 – except for the personnel by countries, which is counted including the discontinued operations. Historical data has not been restated. Headcount from 2012 includes the combined company, since the acquisition was completed before the year-end. Headcount from 2011 includes Outokumpu stand-alone before the completion of the Innoxum acquisition.

Independent Assurance Report

To the Management of Outokumpu Oyj

We have been engaged by the Management of Outokumpu Oyj to perform a limited assurance engagement on the quantitative information on economic, social and environmental responsibility for the reporting period of January 1, 2013 to December 31, 2013, disclosed in Outokumpu Oyj's Sustainability Report 2013 (hereinafter 'Sustainability Reporting').

Management's Responsibility

The Management of Outokumpu Oyj is responsible for preparing the Sustainability Reporting in accordance with the Reporting criteria as set out in Outokumpu Oyj's reporting instructions and the G3 Sustainability Reporting Guidelines of the Global Reporting Initiative.

Practitioner's Responsibility

Our responsibility is to express a conclusion on the Sustainability Reporting based on our work performed. Our assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Outokumpu Oyj for our work, for this report, or for the conclusions that we have reached.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements Other than Audits or Reviews of Historical Financial Information'. This Standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance whether any matters come to our attention that cause us to believe that the Sustainability Reporting has not been

prepared, in all material respects, in accordance with the Reporting criteria.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other disclosures in the Sustainability Reporting. The procedures selected depend on the practitioner's judgement, including an assessment of the risks of material misstatement of the Sustainability Reporting. Our work consisted of, amongst others, the following procedures:

- » Interviewing senior management of Outokumpu Oyj.
- » Visiting one production site in Germany.
- » Interviewing employees responsible for collection and reporting of the information presented in the Sustainability Reporting at the Group level and at the production unit level.
- » Assessing how Outokumpu Group employees apply Outokumpu Oyj's reporting instructions and procedures.
- » Testing the accuracy and completeness of the information from original documents and systems on a sample basis.
- » Testing the consolidation of information and performing recalculations on a sample basis.

Conclusion

Based on our work described in this report, nothing has come to our attention that causes us to believe that the Sustainability Reporting has not been prepared, in all material respects, in accordance with the Reporting criteria. When reading our assurance report, the inherent limitations to the accuracy and completeness of sustainability information should be taken into consideration.

Helsinki, 5 March 2014

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