



# ...TO OUR STAKEHOLDERS...



Image on the cover: Outokumpu's Juha Korhonen listens to Timo Piekkari from Kuusakoski Oy (left).

#### **CONTENTS**

- 1 Outokumpu and responsibility
- 2 CEO's review
- 3 Aiming for the number one position in stainless steel
- 4 Responsibility and management systems
- 6 Stakeholder dialogue

#### **ECONOMIC RESPONSIBILITY**

10 Economic responsibility

#### **ENVIRONMENTAL RESPONSIBILITY**

- 14 Environmental responsibility
- 16 Targets and their implementation
- 18 Recycled steel is the main raw material
- 20 Energy efficiency as a target
- Working to prevent global warming and climate change
- 24 Water cools, rinses and cleans
- 26 Biodiversity
- 26 Reducing emissions even further
- 28 Waste is recycled whenever it is practicable
- 29 Environmental impacts of the stainless steel life cycle
- 31 Environmental impacts of transportation
- 33 Expenditure on environmental protection and investments
- 33 Permits, spills and non-compliances

#### **SOCIAL RESPONSIBILITY**

- 34 Personnel
- 37 Occupational health and safety
- 38 Employee development and listening to employees
- 40 Local communities and educational establishments
- 40 Product safety
- 43 Comparison with Global Reporting Initiative guidelines
- 44 Glossary
  Contact details

# GROUP KEY FIGURES

	2006	2005
Net sales, million €	6 154	5 016
Operating profit, million €	824	57
Return on capital employed, %	20.7	1.3
Earnings / share (€)	5.31	(2.01)
Dividend / share, (€)	1.10 1)	0.45
Environmental investments, million €	8	12
Patents pending	3	29
R&D, million €	17	22
R&D (%) of net sales	0.3	0.4
Personnel (31 Dec)	8 159	8 963
Personnel expenditure (salaries), million €	361	448
Debt to equity ratio (%)	42.3	74.5
Income taxes and social security payments, million €	323	124
Accident rate (accidents / million hours worked)	17	18
Carbon dioxide emissions, (million tons)	1.05	1.05

Outokumpu Copper Tube and Brass and Outokumpu Technology are not included in the figures of this table.

<sup>1)</sup> Proposed by the Board to annual general meeting

#### **Compatibility of reports and statistics**

This report surveys business operations in 2006 in terms of corporate responsibility, thus covering the company's impact on the environment, the economy and on society. The report is based on the Global Reporting Initiative guidelines issued in 2002 and follows the recommended format. In 2004, the main focus was on the environment, but economic and social impacts were also examined. Since the reports for 2005 and 2006 concern our main business area, stainless steel, the statistical content is fully compatible. The figures for Outokumpu Technology have been removed, since the company was listed on the stock exchange in October 2006. The report has not been separately certified. The data based on the financial accounts have been audited.

# **OUTOKUMPU AND RESPONSIBILITY**

Outokumpu invests continuously in procedural development. Reporting on matters of corporate responsibility is one means of achieving our objectives. We want to give our stakeholders information on how we care for the economy, nature and people's welfare.

We want to give our various stakeholders a better understanding of the significance of a responsible approach in all our operations. We would also like to make people more aware of the impact of our activities on nature, the economy and people's welfare. The report will deal with our objectives and achievements as well as the life-cycle of stainless steel. Relevant issues.

Outokumpu maintains a strong culture of responsible action. We invest continuously in operational and procedural development. We believe that thorough reporting on matters of corporate responsibility furthers this work. We wish to increase transparency by being open with information about matters that are important and relevant in our business operation.

This report is intended for the benefit of our employees, owners and customers as well as any other party interested in the company and its activities. The report is also available at www.outokumpu.com.

We have based our report on the guidelines of the Global Reporting Initiative 2002, with the grouping into three different sections: economic responsibility, environmental responsibility and social responsibility. We focus on issues that are at the core of our operation. The guidelines constitute an internationally recognized and extensively applied recommendation of the best way that businesses can report on economic, environmental and social responsibility and on the impact that the companies have on their stakeholders. A table illustrating the compatibility of this report with the recommendations of the Global Reporting Initiative 2002 can be found on page 43.

#### **Report coverage**

This report covers Outokumpu's entire main business area, the stainless steel business. The report deals with the company's economic and social responsibilities as well as our responsibility towards the environment. We also examine the impact that our operation has on our various stakeholders. The environmental impact of our Group's operations occur in the area of stainless steel production.

Two Group units are no longer covered by the report. We will not report on the technology business, because Outokumpu Technology was listed on the stock exchange at the beginning of October last year. Outokumpu only owns 12 percent of the business. Similarly, we are excluding from the report Outokumpu Copper Tube and Brass, which will be divested as previously announced. The copper and brass business does not play a significant role in the Group's total environmental impact or emissions.

#### Key events in 2006

#### January to February:

Network Dialogue 1

#### February:

Implementation of the ethical principles and the corporate responsibility policy was launched at Group management level

#### May:

Make the Right Choice occupational safety film awards

#### September:

DJSI – Sustainable Development Index

#### October:

Stock exchange listing of Outokumpu Technology Oyj

#### November:

Fifth award for reporting on corporate responsibility

#### December:

Network Dialogue 2



# TWO DIALOGUES ON CORPORATE RESPONSIBILITY

Outokumpu personnel were given the opportunity to discuss how corporate responsibility manifests itself in everyday working life.

Personnel were given a voice in corporate responsibility dialogues, the first of which was organized in January-February and the second in December. In the first dialogue, personnel could comment, for example, on the new corporate responsibility policy. The December dialogue session focused in more depth on the issues that had been raised previously, in the first dialogue. Occupational health and safety, staff development and environmental protection became the topics of choice.

# ...WE AIM FOR A FIRST-CLASS **POSITION IN RESPONSIBILITY.**

# CEO'S REVIEW



For Outokumpu, 2006 was an excellent year for various reasons. We achieved the best ever financial result. Demand for stainless took an upturn, and prices rose considerably. Both production and sales performed well. The listing of Outokumpu Technology was a success, and we reduced our ownership to 12 percent. This allows us to concentrate fully on stainless and on achieving the number one position.

In order to achieve our objective, we focused particularly on improving our internal procedures and adopted very down-to-earth methods to do this. The programs set up to achieve both commercial and production excellence made very good progress, and tangible benefits have already been realized. Our new leadership principles contribute towards the adoption of better practices, such as generating trust among our stakeholders.

The Group-wide cost cutting programs launched in 2005 were brought to completion. Following the cost cuts and the closure of the Sheffield cold rolling unit, personnel numbers decreased by 1 250. In addition the divesting of Outokumpu Technology decreased the personnel numbers by 1 801.

We are committed to corporate responsibility and are aiming for a first-class position in this respect, as well. We feel that we have made good progress in the first year of implementing our ethical principles and the corporate responsibility policy. We resorted to web-based dialogue to communicate to our employees the significance of the concept of responsibility from Outokumpu's perspective. This gave everyone the opportunity to

express their views, tell us about any problem areas and propose remedies. These issues are obviously felt to be important, judging by the amount of interest generated and the valuable feedback received from our employees. It is now time for action.

Emissions and discharges from our plants were at normal levels. One of our objectives had been to obtain certification for the environmental programs of all our production plants by the end of 2006. However, due to structural changes in the environmental organization, the certification of Meadowhall in Britain was postponed to May 2007.

We have set ourselves the challenging target of significant reductions in the volume of occupational accidents by 2009 - the aim is to bring the figure down to less than five accidents in one million working hours. The interim target figure for 2006 was 14. However, the actual accident rate was 17. The final target is still a long way off, and we will only succeed if determined efforts are made throughout the whole company.

Although last year the principal focus was on internal implementation of corporate responsibility, we also received external recognition for our responsible approach to operations. We were accepted as member of the Dow Jones Sustainability Indexes system, which charts corporate responsibility. We were also praised for our reporting of corporate responsibility in 2005. However, there is always room for further development. We will take one step at a time. Last year, we charted our data collection and management functions, with a view to evolving procedures further.

It is important to listen to our stakeholders. In addition to personnel, other groups have given us valuable feedback about improving both operations and reporting. We are listening.

Juha Rantanen

Manhanen

CEO

We listen.

# AIMING FOR THE NUMBER ONE POSITION IN STAINLESS STEEL

Outokumpu is a world leader in stainless steel. Hot and cold rolled stainless steel products form our core competence. Outokumpu operates in about 30 countries.

Outokumpu is an international stainless steel company. Our customers are the processing and construction industries, the transport sector, food and electronics industries and the producers of domestic appliances and industrial machinery around the world. Our main market area is Europe. We are one of the leading producers of stainless steel in the world and a globally recognized innovator in the field of technical support, research and development. We hold 8 percent of the world market and 24 percent of the European market in rolled stainless steel.

Our main products are hot and cold rolled stainless steel coil, sheet and plate. We also produce precision strip, bar and tube. The main production sites are in Tornio (ferrochrome plant, steel melting shop, hot and cold rolling mills) and Kemi (chrome mine) in Finland; Avesta (steel melting shop, hot and cold rolling mills), Nyby and Långshyttan (cold rolling mills), and Degerfors (hot rolling mill) in Sweden; Sheffield (steel melting shop) in Britain, and New Castle (hot rolling mill) in the USA. Our bar products are manufactured in Sweden, the United States and Britain, while welded tubes and tube components are produced in Finland, Sweden, Estonia, Belgium, Canada and the United States. Please see pages 18-25 of the Annual Report for additional information.

The Group also comprises Outokumpu Copper Tube and Brass, which focuses on the production of copper tubes and brass bars (personnel 915; net sales about 678 million euros), which will be divested as previously announced. The related production is not covered by our corporate responsibility reporting.

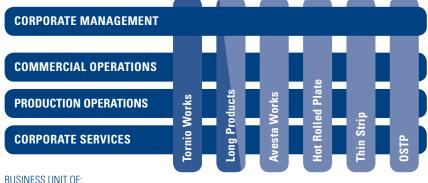
In 2006, Outokumpu (excluding the copper business) operated in about 30 countries and employed 8 159 people. Group sales amounted to 6.2 billion euros, of which 94.4 percent was generated outside Finland. Outokumpu's headquarters are located in Espoo, Finland. Outokumpu Oyj has been listed on the Helsinki Stock Exchange since 1988.

#### Four main types of stainless steel

Different grades and compositions of stainless steel have been developed for different uses. The four main grades are called austenitic, ferritic, ferritic-austenitic, and martensitic steel. All grades of stainless steel contain a minimum of 10.5 percent of chromium. The most common is austenitic, which contains at least 7 percent nickel in addition to chromium and is used for sink tops and industrial process equipment. Ferritic stainless steel, which does not contain nickel, is used in washing machines and for internal architectural items. Martensitic stainless steel contains 11-13 percent chromium. Its hardness and toughness mean that it is used to manufacture knives. Ferritic-austenitic contains 1.5-5 percent nickel, and its strength and corrosion resistance make it particularly suitable for use in buildings and bridges.

Outokumpu mainly produces austenitic stainless steel. During year 2007 production of ferritic steel grades increases along with investments of 13 million euros. Outokumpu's newlydeveloped Duplex steel grades are ferritic-austenitic, containing only small amounts of nickel.

#### **ORGANISATION**



**BUSINESS UNIT OF:** 

- Specialty Stainless -division
- General Stainless -division

# RESPONSIBILITY AND MANAGEMENT SYSTEMS

Corporate responsibility stands for taking care of the economy, the environment and social matters. Outokumpu bases its corporate responsibility policy on ethical principles, but our operation is also guided by other, more detailed policies.

For Outokumpu, corporate responsibility includes economic, environmental and social aspects and their impact on the Group's key stakeholders. The policy of corporate responsibility is founded on our ethical principles and supplemented by other, more detailed policies. Outokumpu's corporate responsibility policy can be found at www.outokumpu.com.

Exemplary and faultless conduct in matters relating to occupational health and safety is vitally important both in terms of the company's profitability and competitive advantage and the health and welfare of its personnel. No compromises are made in this respect. We are particularly attentive to the well-being of our personnel and to the wishes of our customers. As a listed company, Outokumpu is committed to making a profit for its shareholders.

#### **Ethical principles**

Outokumpu's ethical principles were reviewed in 2005. The cornerstones of our ethical principles are human dignity, caring for the environment, good corporate citizenship and a healthy workplace.

Outokumpu condemns all forms of discrimination and intolerance, strives in all operations to further sustainable human, economic, social and ecological development and recognizes its corporate responsibility towards the communities and countries it operates in and towards the entire world community.

At Outokumpu, it is the responsibility of the entire work community to foster mental well-being and increase occupational safety. A healthy and positive workplace is a source of strength for all employees. It is advantageous to family, friends and colleagues, as well.

The details of Outokumpu's ethical principles can be found at www.outokumpu.com.

#### Outokumpu's leadership principles

In recent years, an extensive forum has been established with Outokumpu personnel on the subject of values. The results of this forum were used to identify the basic values of the company. We coined the set values 'The Outokumpu Way'. Last year, the company did not initiate a Group-wide discussion on values; instead the Group identified and defined the leadership principles. The principles were de-

termined by the Group Executive Committee and other Directors from different sections of the Group. The principles are as follows:

- Making sound decisions
- Achieving ambitious targets
- Creating a winning team
- · Inspiring to perform
- Building trust and respect

#### Outokumpu's vision

Outokumpu's vision is to be the undisputed number one in stainless steel and basing its success on operational excellence. This means that we want to be the most successful company, the most efficient producer, the most popular employer and the best customer relationship manager in our sector — and to achieve all this through responsible business practices and with the help and support of our key stakeholders.

#### Outokumpu's strategic goals

Outokumpu's strategic goals comprise the creation of value by establishing unparalleled production and distribution activities in all the principal global markets and then realizing the value through commercial and production excellence.

# Guidelines and policies supporting the operation

We base our operation on statutory compliance, but we want to take it further. It is our aim to operate as a one company whose activities are guided by Group-wide operating procedures and policies: the ethical principles, the corporate responsibility policy, the environmental policy and the occupational health and safety policies. Individual sites have more detailed practical goals and guidelines to support their practices. The Group-wide ethical principles, the corporate responsibility policy and the environmental policy can be found on our website.



# Implementing and complying with the principles of corporate responsibility

Outokumpu's Board of Directors charges the CEO to formulate and implement the measures that are required to safeguard systematic compliance with the requirements of the corporate responsibility policy and the ethical principles of Outokumpu. At least annually, the Board of Directors assesses Outokumpu's operation in the light of the CEO's report with regard to responsible business practices. The company's management and its employees are expected to comply with the principles of corporate responsibility. At the end of last year, it was decided to introduce an internal channel in the first six months of 2007, which can be used to notify non-compliant action, either in person or anonymously. A corresponding external channel was also considered, but it was seen to be a foreign concept in the company culture.

#### **Corporate governance**

Outokumpu's corporate governance and the duties and responsibilities of the governing bodies are described on pages 46–51 and the control systems on pages 50–51 of the annual report. Internal audit function provides consultative auditing on targets and issues that have been separately identified by the Board audit committee and the Group executive committee.

The focus of auditing is on business risk as well as communication.

Internal audit co-operates closely with Group finance and risk management, financial and business control and the external auditors. Internal audit reports to the Board audit committee. The committee approves the operating plan prepared by the internal audit.

In 2006, about 25 different entities or functions were audited by the internal audit working either independently or in co-operation with external service providers. The audits did not identify any major risks or verifiable malpractices. Together with different Group functions the internal audit oversees compliance with Outokumpu's ethical principles and



corporate responsibility policy and how the principles and policies are incorporated into the general operational procedures in Group companies and units.

# The organization in charge of corporate responsibility

The company's Deputy CEO is responsible for matters of corporate responsibility at Outokumpu. A cross-functional Corporate Responsibility Team advises on these matters, with Corporate Communications acting as the responsible unit. Corporate Communications also coordinates all corporate responsibility matters throughout Outokumpu Group. The business units and functions are responsible for ensuring that their own operations are monitored and conducted in a responsible manner and that data is available on them and duly reported. Contact details for the responsible persons are inside the back cover of the report.

At the end of the year, five employees were engaged in environmental work at Group level. Nine employees were charged with human resources matters and three with occupational health and safety. In addition, each production plant has an environmental officer and a human resources officer. The larger locations also employ a person charged with safety issues.

The function of collecting and managing data on the basis of the Global Reporting Initiative guidelines and other data relating to corporate responsibility was surveyed and recorded in 2006.

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# Three main objectives of the corporate responsibility policy:

- 1) Corporate responsibility becomes an integral part of our decision-making process and of all our activities, from materials purchasing through to production and sales. Economic, environmental and social responsibility issues are in balance. Compliance with laws forms the basis of our operation. By continuously strengthening our corporate responsibility performance, Outokumpu strives towards a higher level of achievement.
- 2) Our business partners, subcontractors and suppliers become familiar with our corporate responsibility principles and start to apply the same high standards in their own activities.
- **3)** To enhance transparency, Outokumpu strives for a continuous, systematic and open dialogue on corporate responsibility issues with key stakeholders, such as shareholders, employees, customers, suppliers and nongovernmental organizations. This co-operation contributes to developing both the company's corporate responsibility performance and the reporting of that performance.

# STAKEHOLDER DIALOGUE

Our stakeholders matter to us. Outokumpu is in constant dialogue with its investors and analysts; we continuously develop our cooperation with subcontractors and take the needs of our customers into account. We are also keen to know what our employees as well as students expect of us.

One of the three general objectives outlined in the corporate responsibility policy is maintaining an open dialogue with our core stakeholders, with the aim of promoting transparency. Apart from the conventional method of distributing information, we come face to face with our stakeholders at road shows, trade fairs, visits and open house days. We maintain an ongoing dialogue with analysts, investors, employees, customers and suppliers of goods and services, among others. In 2006, special emphasis was put on dialogue with our employees as part of the implementation of our ethical principles and

corporate policy. Interaction with customers was also a point of focus. The traditionally active interaction with our investors and analysts was further intensified.

# Active contacts with investors and analysts

The dialogue with investors and analysts was particularly active in 2006. In addition to the annual general meeting 15 road shows were organized in locations around Europe, for instance in Paris, London, Amsterdam, Milan and Oslo. We also visited New York, Boston, Chicago and Toronto. Eight group

luncheon meetings were held during the road shows.

Breakfast and luncheon presentations were organized in Helsinki and Espoo in Finland and in Hong Kong, targeting fund managers. Various presentations were prepared for private investor clubs. A total of 133 head-to-head meetings with investors and analysts took place during the year. Capital Markets Days were organized in Helsinki and Tornio. Outokumpu participated in an industrial seminar in Stockholm. 21 conference calls were conducted with investors. Outokumpu took part in an annual investment fair for private investors in Helsinki. Surveys were carried out to chart public opinion and two shareholder surveys were conducted during 2006.

#### **Streamlining subcontracts**

The best result for all parties and for the Group itself can be achieved by conducting an open dialogue between suppliers of goods and services and those of our own employees who are responsible for purchases across the Group. To streamline the chain of supply, Outokumpu has worked to improve co-operation with subcontractors. Outokumpu wants to harmonize and streamline its purchasing practices and obtain cost savings - this can be achieved partly by adopting new innovations. Consequently, wherever feasible, efforts have been made to limit the number of subcontractors. The emphasis is on a highquality and responsible operation. In 2006, a joint three-year project, entitled Supply Chain Management Tool, was launched in collaboration with the Helsinki University of Technology. The project will chart the requirements posed by the corporate responsibility policy at every juncture of the supply chain and then prepare guidelines applicable to all purchasing activities.

#### **Customers are the focal point**

Users of stainless steel seek suppliers who are able to meet their challenges and support them in their business operations. Outokumpu is keen to continuously develop its

#### VALUABLE FEEDBACK FROM EMPLOYEES



Outokumpu wanted to mobilize the ethical principles and the corporate responsibility policy throughout the entire Group. As a result, staff were given the opportunity to comment on the principles and policies and consider ways in which corporate responsibility can manifest itself in everyday work.

A network dialogue session was organized in January. It incorporated cases to illustrate the ideas behind the

concept of corporate responsibility and gave personnel the opportunity to comment on the significance of ethical principles for Outokumpu as well as their practical implementation. Over 2 000 employees participated in the dialogue. Their replies provided valuable information and feedback on which to base preparations for future action. The second dialogue session took place in December. It dealt with specific issues raised by employees in the first dialogue. Although total personnel numbers had been cut, the dialogue attracted more than 1 200 respondents. In addition to the dialogues, corporate responsibility was mobilized by means of teamwork discussions, of which 14 were held during the year. The discussion groups had the opportunity to dwell on the challenges and problems specific to them, and to seek possible solutions. The teamwork will be continued, with the ultimate aim of moving on from words to action.

We wish to emphasize the value of uncomplicated working practices and operating as one company

operation, listen to its customers and meet their needs.

In 2005, to achieve its objectives Outokumpu launched a commercial excellence program. In 2006, the program focused extensively on key customer programs and the harmonization of pricing. Outokumpu has reviewed its customer base and identified "key customers", charting their growth potential and needs, in order to further develop the commercial interaction with them. Each key customer is allocated a key customer manager who looks after their needs. The aim of the program in terms of pricing is better anticipation and harmonized trading practices.

We wish to emphasize the value of uncomplicated working practices and operating as one company. Harmonized modes of operation protect long-term customer

relationships. The program has already produced discernible results, and it is our firm belief that the next few years will see more positive effects.

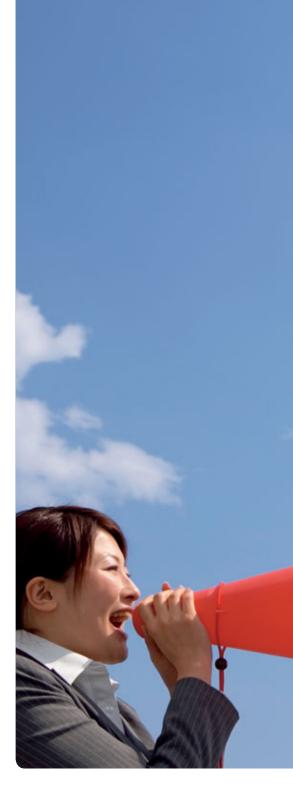
Numerous thorough customer surveys lay the foundations for the commercial excellence program. About 160 customers took part in a customer loyalty survey conducted in 2006. About 20 customers were approached for indepth interviews on the subject. A separate customer survey was conducted into complaints handling, and procedures have been reviewed as a result.

The Outokumpu website is also used for ongoing customer feedback. In November 2006, the Product Tool service was created for the website. Customers are able to use the service for fast product searches and the identification of product characteristics.

Managers of marketing and sales companies also participated in workshop discussions dealing with challenges and possible problem areas, along with solutions, linked to corporate responsibility in connection with customer interaction.

#### **Familiarization with EU competition** legislation

In October 2006, a new training program concerning European Union competition legislation was launched for employees involved in sales and marketing. The program comprises five hours of training organized by



 ethical principles

> policy published in

and corporate

responsibility

web-based

- dialogues
- training and workshops

2007

- · articles in employee and stakeholder magazines
- information on intranet and Internet

 ethics and responsibilty are a natural part of everyday life



#### JOHAN LINDH Kaupthing Bank Oyj

"It is the analyst's job to form an opinion on whether a certain company's shares are worth buying or selling. Real-time data on future prospects is absolutely vital", explains analyst Johan Lindh, who is responsible for analyzing Outokumpu in Kaupthing Bank's Investment Department.

The analyst needs to maintain close contact with Outokumpu, since analyses based on inaccurate data would harm both parties. Mr Lindh says that Outokumpu's investor relations have long been exemplary: Outokumpu's communication is straightforward and it provides sufficient information. He would, however, like to see even more detailed data on steel producers' cost efficiency and on future demand in the domestic markets.

"So far, analysts have not shown much interest in environmental issues, but I have a notion that these matters will raise their heads in the future. Companies that discount sustainable development may well incur extra costs in the future which will have an effect on their cost efficiency", says Mr Lindh.

I believe that environmental issues will become more relevant.

in-house and external legal experts. The aim is to alert the trainees to potential problem situations, so that they are prepared to seek professional advice and thus avoid any unlawful arrangements or discussions with competitors. Outokumpu is obliged to honor competition rules and regulations as an intrinsic part of its business practice.

About 200 employees had been trained by the end of 2006. The target for the end of 2007 is the training of 300 employees. Group-wide, a total of about 700 employees are involved in sales and marketing.

# We know what future specialists expect

Outokumpu values highly collaboration with students of technical and commercial institutions of higher education. Feedback received during visits as well as from surveys conducted by external bodies concerning students' perceptions and attitudes give us material for our development work. For example, the Universum Graduate Survey 2006 reveals that students who express an interest in Outokumpu as a potential future employer believe that the company is able to offer a competitive salary, good references and international career opportunities. In the students' perceptions Outokumpu's trump cards are a good reputation, a successful market position and a strong company culture.

#### Organizations produce metal knowhow

For a long time, Outokumpu has been collaborating with various organizations to promote the operating conditions and attractiveness of the metal and steel industries. Caring for the environment has long been at the forefront of our operations, and recently other issues relating to corporate responsibility as well as dialogue with stakeholders have become more prominent.

Outokumpu distributes its expertise in numerous networks. The co-operation partners work together to produce information on metals and participate in the drafting of directives and regulations. The International Iron and Steel Institute (IISI) and the Interna-

# Outokumpu shares its competence with others in several networks

tional Stainless Steel Forum (ISSF) operate at the global level and Eurofer and Euro Inox, for example, within the EU. Outokumpu also participates in the Swedish Jernkontoret network and the Association of Finnish Steel and Metal Producers.

Outokumpu also cooperates with the producer organizations of the raw material suppliers, such as the International Chromium Development Association (ICDA), the Nickel Institute and the International Molybdenum Association (IMOA). A voluntary risk charting of the effects on health of metallic chromium and chromium compounds was completed in 2006 by the ICDA. The charting of environmental risks posed by the compounds is underway.

Co-operation with universities and specialist institutions enables the implementation of extensive scientific projects. Outokumpu participates, for instance, in the network entitled European Steel Technology Platform (ESTEP), which brings together the European steel industry, research institutions, universities, the EU Commission and other interest groups. The ULCOS program, for example, run by the network aims to evolve a steel manufacturing process which creates minimal amounts of carbon dioxide gas.

Outokumpu is also actively involved in a Swedish environmental research project. The project is entitled Towards a Closed Steel Eco-Cycle and its goal is to produce environmentally friendly models for using and producing steel. The research projects are scheduled for completion by the end of 2008.

The Metal Information Task Force (MITF), to which Outokumpu contributes along with other metal producers, has produced a brochure on the use of metals in our society. The brochure is intended for the authorities, among others. It was originally produced in Swedish and called *Metaller*. It is now also available in English and Finnish language versions. The brochure will also be distributed to educational establishments.



# RECOGNITION FOR GOOD CORPORATE CITIZENSHIP

Outokumpu was elected member of the Dow Jones Sustainability Indexes system as from 18 September 2006.

About 1 200 international companies were assessed on the basis of their records on corporate responsibility in matters relating to the economy, the environment and social issues. The assessment criteria were linked to corporate governance, risk and crisis management, executive regulations, working practices, community involvement and reporting on social matters.

By achieving membership of the index system, Outokumpu is one step nearer to its goal of becoming a more responsible company. It is also important that Outokumpu is publicly recognized for its responsible attitude.

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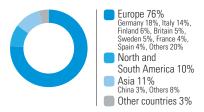
# **ECONOMIC RESPONSIBILITY**

Outokumpu's operations have economic impact at the local, national and global levels. We aim to give our stakeholders the greatest and the most sustainable possible economic benefit. Financial result achieved in 2006 was the best in the company's history.

Outokumpu's ethical principles and corporate policy guide our operations in economic matters, as well. As a listed company, Outokumpu is committed to making a profit for its shareholders. We achieve this by developing and maintaining competitive and profitable operations that are founded on ethical business practice. Outokumpu applies principles of good corporate governance and transparent accounting. In this we are guided by rules and regulations applying to listed companies, by international accounting standards, the declaration on competition policy, our corporate governance policy and insider rules as well as our dividend policy.

Our operations have economic impact on the local, national and global communities in which Outokumpu operates. Outokumpu pays taxes and employs people, both directly and indirectly. We aim to generate for our stakeholders as much economic added value

#### SALES BY REGION AND COUNTRY

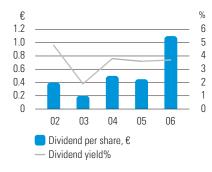


WAGES AND SALARIES BY COUNTRY			
€ million	2006	2005	
Finland	125	154	
Sweden	125	131	
Britain	44	95	
Other Europe	41	44	
Other countries	26	24	
Total	361	448	

as possible in a format that is as sustainable as possible. Group financial results and targets are described in our annual report and accounts. This report concentrates on the economic impact that Outokumpu has on its stakeholders.

The year 2006 was a successful one for Outokumpu. Demand for stainless steel took an upturn and base prices increased significantly during the year. We achieved, and even surpassed, our profitability and financial strength targets. Throughout 2006, Outokumpu consistently implemented its visionary strategy of becoming the undisputed number one in stainless. An important step on the road to exclusivity in stainless was the sale of shares and stock exchange listing of Outokumpu Technology. The profitability drive that was launched in the difficult market conditions of 2005 was completed in 2006 according to plan. The program to reduce fixed costs was brought to successful completion, despite the pressure to reinforce resources as a result of the vigorous growth in demand. The annual reduction in fixed costs of about 100 million euros was partly achieved already in the second half of 2006, and will be achieved in full in 2007. As planned, cold rolling production in Sheffield was terminated in April 2006. This will improve the Group's annual

DIVIDEND AND DIVIDEND YIELD



profit by about 50 million euros. The positive effect was partly evident already during the second half of 2006.

Both the Commercial and Production Excellence programs progressed well, and the results are emerging. It is forecast that the total benefits from the programs will be in the region of 40 million euros in 2007, 80 million euros in 2008 and 160 million euros annually thereafter.

#### **Economic targets**

Outokumpu has set the following economic targets for its operation to support its ongoing objective of being the number one in stainless steel:

- Continuing to grow at a more rapid rate than the markets
- Return on capital employed to exceed 13 percent and remain better than that of competitors
- Debt to equity ratio less than 75 percent

# Profitability improvement measures reduced number of personnel

At the end of the year, the Group employed 8 159 people (excluding the copper business and Outokumpu Technology) in about 30 countries. In 2006, personnel was reduced by 804 employees.

The Sheffield cold rolling plant closure and the fixed costs cutting program both reduced the number of employees. There was however a slight increase in the number of personnel employed by the Group following the investment in expansion at Kloster, Sweden. The rapid increase in demand also resulted in personnel reductions in some units being less than planned. 94 percent of Group personnel is employed in Europe. The principal operating countries are Sweden, with 38 percent of personnel, Finland, where 34



percent are employed and Britain, with 10 percent of personnel.

In 2006, Outokumpu paid 361 million euros in salaries, which was a reduction on the previous year's figure (448 million euros). In 2005, redundancy payments were made, whereas in 2006 staff received bonuses based on the good financial result. 13 million euros was transferred to the personnel fund in Finland.

#### **Customers predominantly in Europe**

Outokumpu's key customers are in the process industry, such as the pulp, paper and chemical industries as well as offshore oil drilling, the restaurant and domestic sector, the transport equipment industry and the construction industry.

Outokumpu's sales rose by 23 percent to 6 154 million euros in 2006. The value of sales was divided geographically as follows: Europe 76 percent, Asia 11 percent, North and South America 10 percent and other countries 3 percent. Outokumpu's European market share of its principal product, hot and cold rolled stainless steel, is 24 percent, while it has a global share of eight percent.

#### Record-high raw material prices

Suppliers have an important role to play in our value chain. The principal raw material of stainless is recycled steel (both stainless and carbon steel), ferro-chromium and nickel. Outokumpu has its own chromium mine in Kemi, Finland, and a ferro-chrome refinery in Tornio, Finland. The recycled steel, the nickel and some of the ferro-chromium are purchased in the open market. Depending on the factory, recycled steel accounts for 65-80 percent of the total raw material. Nickel accounted for 69 percent of the cost of the raw material of stainless steel in 2006 (56 percent in 2005). Energy expenses increased by 13 percent and totaled 239 million euros, thus accounting for some five percent of total costs.

Raw material costs escalated to record-high amounts in 2006. At the end of the year, the price of nickel was 2.5 times the price at the

end of 2005. The elevated raw material prices have markedly increased working capital.

The Production excellence program is a down-to-earth method of boosting production at Outokumpu. A further aim of the program is to enhance both raw material and production efficiency and to compare and adopt best practices. We aim to improve our production processes and gain significant savings in raw material consumption and in other manufacturing expenditure.

#### **Balance sheet strengthened further**

The majority of the Group's interest-bearing current liabilities is acquired by the Group's treasury function. Balancing loan installment schedules and maintaining sufficient financial reserves are methods used to minimize risks relating to liquidity and refinancing. At the end of 2006, the Group had unused, negotiated loan facilities and undrawn loans, with binding credit promises, amounting to 846 million euros.

In 2006, our interest-bearing debt was reduced as a result of the sale of the shares of Outokumpu Technology. On the other hand, the amount of working capital was increased significantly by the high price of nickel, the most expensive raw material of stainless steel.

Net financial costs amounted to 48 million euros (66 million euros in 2005) and net interest costs to 62 million euros (65 million euros in 2005). Outokumpu's net interestbearing debt was 1 300 million euros at the end of 2006 (1 537 million euros at the end of 2005) and the debt-equity ratio was 42.3 percent (74.5 percent at the end of 2005). This is considerably better than the targeted under 75 percent.

#### More dividends to shareholders

The two largest shareholders of Outokumpu are the Finnish Government with 31.1 percent and the Finnish Social Insurance Institution with a 8.8 percent shareholding. Pursuant to a parliamentary decision in June 2001, state ownership of Outokumpu may be reduced as much as to 10 percent. A new parliamen-







#### MIKKO MURSULA Ilmarinen

"We expect Outokumpu to operate in a way that will increase its value to share-holders. We also expect the company to show a desire to develop its environmentally-friendly operations further and to understand also on a larger scale the impact of its actions", says Mikko Mursula, Director of Equities at Ilmarinen Mutual Pension Insurance Company.

Mr Mursula says that Ilmarinen applies long-term investment policies, and the company has long been a shareholder of Outokumpu. In 2006, it was Outokumpu's third largest shareholder. Ilmarinen values direct and active dialogue with the key contacts in the Finnish companies in which it is an owner.

"We count an open approach and a willingness to communicate issues, even prior to publication, an integral part of a responsible business operation; naturally, with due consideration of legal requirements", Mr Mursula says. In his opinion, Outokumpu has made progress in its ability and willingness to communicate even difficult matters quickly and clearly. However, there is further room for improvement in taking the initiative in communication.

We want open communication, even on difficult matters.



tary decision will be required, if this limit is to be broached.

The company's Board of Directors has confirmed the dividend policy, which dictates that during the economic cycle a minimum of one third of the accounting period's profit must be paid in dividends. When drafting the annual dividend proposal, Board of directions takes into account not just the performance trend, but also the investment and development needs of the Group.

The proposed dividend payment for 2006 is 1.10 euros per share. Dividend payment for 2005 was 0.45 euros per share. The effective dividend yield for 2006 is thus 3.7 percent. Over the last five year period, Outokumpu has distributed a dividend averaging 36.7 percent of the result.

#### The good result increased taxes

Outokumpu's operations have an economic impact on the local, national and global communities in which the company operates. Outokumpu contributes to the communities' well-being through the payment of taxes, through direct and indirect employment and by participating in social activities in other ways.

In 2006, Group taxes and social security payments increased to 323 million euros from the previous year's figure of 124 million euros. Due to increased profitability, the amount of income

tax due grew considerably to 178 million euros. The 2005 figure was 16 million euros.

Group companies participate actively and openly in community development wherever they operate, for example, by making charitable donations and giving financial assistance in line with the company's ethical principles. The plants in Tornio in Finland, Avesta in Sweden and Sheffield in Britain are significant local employers. Outokumpu also supports research and development related to its field of operation and we maintain close co-operation with local educational institutions.

Outokumpu receives assistance from the public sector. In 2006, this amounted to 730 000 euros. The grants are linked to research and to the development of new technologies, products and applications.

In 2006, the Outokumpu Oyj Foundation distributed grants and diploma awards totaling 268 600 euros. The Foundation is charged with promoting research into and the teaching in universities of the manufacture and refining of metals in Finland, metal and mining technology, ore geology and related business activities. The Foundation also offers support to students and researchers in these fields. The foundation is an independent organization, whose Board of Directors comprises representatives of different universities. Outokumpu's CEO is the foundation's Deputy Chairman.

TAXES AND SOCIAL DUES BY COUNTRY			
€ million	2006	2005	
Finland	136	21	
Sweden	126	91	
Other Europe	60	(1)	
Other countries	1	14	

323

124

Total

COST OF GOODS AND SERVICES			
€ million	2006	2005	
Raw materials and merchandise	3 466	2 935	
Fuels and supplies	325	330	
Energy expenses	239	221	
Freights	227	214	
Maintenance	111	138	
Hire processing	44	43	
Rents and leases	26	30	
Other expenses	199	273	
Total	4 637	4 184	

Several Outokumpu units engage in local charitable enterprise to support technological research as well as technology students and financially disadvantaged young people.

VALUE ADDED DISTRIBUTED TO OUTOR	(UMPU'S STAKEHOLDERS				
Generation of value added	€ million	2006	%	2005	%
+ Customers	Sales	6 154		5 016	
- Suppliers	Cost of goods and services	4 604	75	4 194	84
= Value added		1 550		822	
Distribution of value added					
- Employees	Wages and salaries	361	6	448	9
- Public sector	Taxes and social dues	323	5	124	2
- Creditors	Interest on debt and borrowings	39	1	67	1
- Shareholders	Dividends	199	3	82	2
= Distributed to stakeholders		922		721	
Retained in business		628	10	101	2



# **ENVIRONMENTAL RESPONSIBILITY**

The production of stainless steel has an impact on the environment. Outokumpu makes every effort to minimize environmental impacts, within financial and technical parameters. Our efforts are concentrated on reducing emissions and waste, increasing energy efficiency and preventing soil pollution.

Stainless steel is 100 percent recyclable, corrosion-resistant and hygienic, and the environmental impacts that result from its use are negligible. Almost all environmental impacts therefore arise during the production, manufacturing and reprocessing stages of the material's life-cycle.

The major environmental aspects related to stainless steel production are the following: dust and particulate emissions into the air; soil contamination as a result of metals settling out of dust emissions or spills of metals, solvents and oil-containing liquids onto the ground; the intake of cooling water; contamination of waters by discharges from plant; and high levels of direct and indirect energy intensity in production which contribute to global warming. Particularly the use of primary raw materials made of natural ores spends a lot of energy. Production techniques also create large amounts of landfill waste if determined action to prevent this happening is not taken.

Key environmental objectives:

- Preventing soil contamination
- Reducing emissions into water and air
- Improving energy efficiency and enhancing the use of renewable energy
- Optimizing the use of water
- Optimizing the use of recycled steel as a raw material
- Reducing the generation of waste

As a stainless steel producer, Outokumpu is committed to responsible production. In line with its corporate responsibility policy, ethical principles and environmental policy Outokumpu aims to minimize the negative impact of its operations on the environment as much as economically and technically possible while achieving continual improvements in overall performance. Local guidelines and environmental management systems that comply with the ISO 14001 standard provide more detailed models for the actions we take.

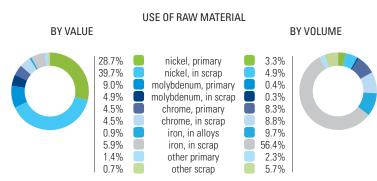
# Stainless steel is 100 percent recyclable

Environmental issues are an essential part of the management systems employed in Group plants and units, and the functioning of these systems is monitored by both internal and external audits. The relevant authorities also receive regular reports on Outokumpu's operations. At Group level, operations are managed and best practices are applied through our environment network, whose working groups and environment committee meet once during each quarter.



# Key environmental events in

- At Tornio the target of the sales of steel slag products was achieved: 111 000 tons of products was sold.
- Dust treatment furnace capacity was upgraded up to the level of Sheffield smelter dust production.
   Hence dust transportation to France is no more necessary.
- Avesta, Degerfors and Nyby successfully certified their energy management systems according to SS 627750.
- Hydroflux product made of pickling sludge of Avesta and Nyby is used as flux in stainless steel production.
   Full-scale trials in the Avesta melt shop have been made successfully.







#### The world's steel

Most of the steel in the world is carbon steel. More than 500 million tons of recycled steel is used in annual global steel production, which now totals some 1 300 million tons.

Annual production of stainless steel totals about 28 million tons, and consumption is growing at an annual rate of five to six percent. Stainless steel now coming onto the market contains an average of 60 percent recycled steel (both carbon and stainless steels). Using recycled material in combination with ore when manufacturing stainless steel saves considerable amounts of raw material and also reduces the amount of energy used, since producing metal from ore is a very energy-intensive process. Stainless steel is especially easy to recycle, since it is not coated with paint, plastics, zinc or other coatings, which create harmful emissions, when steel is re-melted.





# **ACHIEVING TARGETS SET FOR 2006**



#### Air protection

#### • Degerfors

Low level of dust emissions was established in 2006, however all filter capacity is not yet utilized. Some more measurements are to be done in 2007.

#### Sheffield

Not very significant progress was made concerning fugitive emissions reduction. Improvement plan and re-assessment of roof emissions was submitted to Environment Agency.

#### Avesta

The goal was to reduce the impacts of internal transportation by cutting the fuel consumption by three percent. Despite of determined efforts, the fuel consumption remained at the level of 2005 for currently unknown reasons.



#### Water protection

#### • Tornio

A construction work of new treatment system for landfill waters is ongoing. The system, based on reactive ferrosulphate treatment, has turned out to be functional.

#### Avesta

Possibilities to reduce effluent of nitrates to water from pickling in cold rolling mill were studied. Target was achieved resulting to investments in pickling process during 2007.



#### **Soil protection**

#### Hertecant

Authorities have not yet approved the final remediation plan.



#### Waste management

#### Tornic

New treatment method, which has been developed together with an outside partner for waste sludge from pickling acid regeneration plant, is in piloting stage.

#### • Richburg

The level to avoid land-filling non-stainless scrap metal was achieved and the recycling process continues as a standard procedure. It means that annually about 40 tons of recycled steel is sold to scrap dealers instead of land-filling it.

#### New Castle

The 30 percent reduction target of pickling sludge has been delayed to 2007.

#### · Sheffield, melting shop

Dust treatment furnace performance was upgraded up to the level of smelter dust production. Hence dust transportation to France is no more necessary.

#### New Castle

Reduction in the use of acids at the New Castle hot rolled plate mill was successfully achieved.

Hydrofluoric acid consumption was reduced by 50 percent, nitric acid constant, while difficult to pickle special grades, increased with 30 percent.



#### **Energy efficiency**

#### Avesta

Targets were to decrease the electricity consumption by three percent and liquid petroleum gas consumption by two percent by the end of 2007. The projects continue. No significant progress was made during 2006.

#### · Avesta, Degerfors and Nyby

Avesta, Degerfors and Nyby successfully certified their Energy Managament Systems according to SS 627750.



#### **Use of materials**

#### Tornio

The target of steel slag product sales was achieved: 111 000 tons were sold.

#### Sheffield, melting shop

Reduction in hydraulic oil consumption was not achieved.

#### · Sheffield, rod mill

A 5 percent reduction target in acid consumption was not reached because of increased production and harder grades. The plan is now to install an acid recovery system, which would make a significant difference to consumption.



#### **Certifications**

#### Meadowhall

The target at Meadowhall special strip plant was to certify ISO14001 Environmental management system by May 2007. An gap analysis about the system was carried out by Lloyd's Register Quality Assurance in December 2006 and the results were encouraging. The process continues according to the plan.



# **TARGETS FOR 2007**



#### Air protection

Avesta

To decrease the carbon dioxide emissions by 2 percent to 375 kg/ton.

Nyby

To reduce nitrogen oxide emission from the furnace in line 55 to max. 100 mg/ MJ power input.

Tornio

To raise utilization rate of dust reduction units to over 97 percent per month.

To implement new dust treatment unit by 1 September 2007 at the cooling section of HP1-line.



#### Waste management

Kem

To reuse 70 000 t of lumpy rock from the concentrating plant to backfill the stopes of underground mine.

· Sheffield, melting shop

To introduce further improvements to the waste segregation and disposal systems, increasing recycling by 10 percent.

· Sheffield, rod mill

To improve site waste management and find alternatives for reducing quantity of waste sent to landfill.

#### • Degerfors

To reduce energy use for heating in the terminal dispatching area by 40 percent from 2005 as reference year.

· Sheffield, melting shop

To implement an energy management system, including formation of an energy group and energy champion. To aim for a reduction in non-production energy use of 10 percent, against 2006 usage.

To reduce hydraulic oil consumption by 10 percent compared with 2006 through a program of leakage reduction measures.



#### Water protection

Avesta

To decrease nitrate discharges to water by 10 percent to 1kg/ ton as monthly average.

· Sheffield, melting shop

To reduce water consumption by 5 percent from 2006 level.

• Tornio

To implement new treatment system for landfill waters before end October 2007.



#### Use of materials

· Sheffield, rod mill

To install acid recovery system to control tank iron levels and recover over 80 percent of the pickling acid.

• Tornio

To produce more than 120 000 tons steel slag products.

To replace oil as heating fuel by peat, biomass and recycled fuel before end December 2007.



#### **Certifications**

Hertecant

To receive certificate according to ISO 14001.

Meadowhall

To get the Environmental management system certified by May 2007.

 Tubular products sites in Sweden and Finland

The sites are in process to combine the quality and environmental management systems into one, which covers the requirements of ISO 9001, ISO 14001 and PED 97/23/EC. The target is to have the system ready for multi-site certification at the end of 2007.



#### **Soil protection**

Hertecant

To decontaminate soil polluted areas.

Sheffield

To improve ground protection by sealing protective bunds on site. To investigate sealing grinder cellars to prevent releases of hydraulic fluids to ground water and implement solution.



#### **Energy efficiency**

Avesta

To improve energy efficiency – decrease electricity consumption by 3 percent by December 2007 from 980 to 950 kWh per ton.

To improve fuel efficiency – decrease the Liquid petroleum gas consumption by 2 percent by December 2007 from 608 to 596 kWh per ton.











# RECYCLED STEEL IS THE MAIN RAW MATERIAL

The main raw material used in manufacturing stainless steel is recycled steel, both stainless and ordinary steel forms. In 2006, Outokumpu used 1.8 million tons of recycled steel in the production of 2.1 million tons of stainless steel. In addition to recycled steel, alloying elements containing iron and other metals such as nickel, chromium or molybdenum are used.

While recycled steel represents the major part of the raw materials, other recycled materials are also employed. These are usually slags and dust, which contain metallic particles and compounds or other by-products from the manufacturing process. Side and end cuts from coils, billets and slabs as well as swarf and heavy fallout dust from slab, coil- and billet-grinding operations can be re-used as such, but both slag and the dust and fumes produced during steel making are treated to recover metals from the residue. Cleaned slag is increasingly being processed into stone aggregates and other products for use in the construction industry.

In 2006, for example, a total of 60 000 tons of dust from the stainless steel manufacturing

process was sent to treatment. Approximately 28 000 tons of metals were recovered from it and reused in steel manufacture.

# Self-sufficiency in recovery of metals from dust

Approximately half of the dust (by weight) is recovered as alloying material that contains nickel, chromium and molybdenum. Materials are used in charging the stainless steel furnace.

In Britain, a DC arc furnace owned and run by Outokumpu is used to recover the metals from the fume dust of the melt shop. After determined development work the capacity is now sufficient to treat all the dust and fume from Sheffield melt shop and transportation to France to an external treatment plant is not necessary any more.

The melt shops at Avesta in Sweden and at Tornio have no local treatment facilities, but the dust is collected and sent to an external facility in Landskrona in Sweden for treatment.

The metallic alloys produced by Sheffield and Landskrona processes are then returned to the Group's melt shops for use as raw material. The dust and fume contain also zinc,

which is not a desired metal in stainless steel eco-cycle. It is separated in Sheffield and Landskrona processes as oxide and sent to other operators to recover metallic zinc.

Another example of how metals are recovered from process waste is the oily mill scale generated during hot rolling. Collected when the cooling water is cleaned, this scale is dried and the metals it contains are then recovered using the same processes as those used in treating dust.

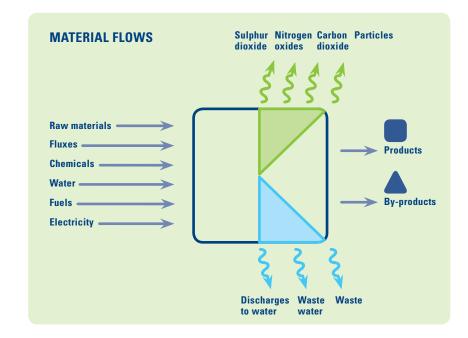
#### Slag formers and packaging materials

In addition to the raw materials used within the product, other materials are needed for the manufacturing process but do not end up as part of the steel product. These are, for example, slag formers such as lime or the acids used in pickling stainless steel. Acids are immediately recycled as part of the process and reused. At the Tornio Works, the Outokumpu Pickling Acid Regeneration process is a very effective form of this acid recycling.

There are also materials, which are used to minimize or prevent harmful emissions into the environment. Examples of these materials are the lime used to neutralize effluent rinse water, the ammonia or hydrogen peroxide used to reduce nitrogen oxide emissions into the air, and chemicals employed in water treatment processes.

Another category of material used is packaging. Guides on waste sorting have been issued to encourage recycling of the packaging material used to protect Group products as they are transported to customers. Packaging materials used by our suppliers for their deliveries to Outokumpu plants are also sorted and recycled in accordance with local practice.

The Group's melt shop in Britain receives certain types of steel scrap that has previously been used as packaging material. Under British Government's Packaging Waste Regulations, Outokumpu has been granted the status of a registered packaging re-processor who is regularly audited and allowed to sell Packaging Recovery Notes at the market rate.





#### TIMO PIEKKARI Kuusakoski Oy

"Outokumpu's and Kuusakoski Oy's relationship goes back a long time, and I would like to see development of the relationship in the long-term", says Kuusakoski Oy's Managing Director Timo Piekkari.

Kuusakoski Oy is a leading industrial recycling company in northern Europe. One of the company's principal products is recycled steel. Recycled steel is one of the core materials used in the manufacture of steel at Outokumpu's Tornio Works, and Outokumpu is one of Kuusakoski Oy's most important customers. Mr Piekkari points out that the possibilities offered by increased co-operation and openness have not yet been fully grasped. Both parties would benefit from closer harmonization of processes, for instance. According to Mr Piekkari, there has been progress, but more is needed.

"This requires an unprejudiced approach from both sides. The Outokumpu representatives with whom I have dealings, certainly understand the significance of open interaction", says Mr Piekkari.



We want to develop the relationship in the long-term.

Materials would tree	
Materials used, tons Recycled steel	1 797 00
Ferrochrome	354 98
. 6.1.661.161.16	
Nickel alloys	130 82
Other alloys	103 08
Additives, tons	
Slag formers	264 71
Meltshop process gases	241 34
Pickling acids bought	23 28
Pollution prevention materials	16 70
Packaging materials used for	
final products	14 20
Energy	
Electricity, million GJ	11.
Propane, million GJ	5.
Carbon monoxide gas, million GJ	1.
Natural gas, million GJ	0.
Light and heavy fuel, million GJ	1
Output, tons	2 070 00
Steel	2 079 00
Emissions to air, tons	
Carbon dioxide	1 050 00
Nitrogen oxides	1 94
Sulphur oxides	73
Dust	27
Ozone-depleting subtances	1
Emissions to water, tons	
Metals	18.
Nitrates	60
Hazardous waste, tons	
Oily sludge to the treatment	5 80
Hydroxide sludge landfilled	53 00
Steel making dust to recovery	42 00
Wastes and by-products, tons	
Slag total	624 00
olug total	

#### **ENERGY EFFICIENCY AS A TARGET**

The steel industry is traditionally viewed as a major consumer of energy and the steel making and rolling processes operated by Outokumpu are indeed energy intensive. Considerable effort, however, has been targeted at improving the overall energy efficiency of the Group's operations. Furthermore, many of the processes operated by Outokumpu are considered to be "Best Available Techniques" as defined by the European Union as part of implementation of the Integrated Pollution Prevention and Control Directive. Outokumpu has developed a ferrochromium process, which complies these targets almost completely. We seek reliable energy sources, security of supply and predictability of prices in a world where the energy costs can be very volatile. The energy supplies are secured using long term energy supply contracts and achieving shares of energy companies.

Electricity and several other energy sources such as coke, natural gas, propane and fuel oil are used at Outokumpu sites. The company's direct energy consumption in 2006 amounted to 21 000 terajoules (TJ). This equates to the annual energy consumption of about 230 000 households, assuming one household consumes about 25 000 kWh, or 0.09 TJ, of energy annually. In 2005, Finland as a whole consumed 1 360 000 TJ of energy.

The total energy used by Outokumpu each year includes fuel and electricity consumed at company sites. Analysis of the Group's energy consumption over the last four years shows that energy consumption per produced steel ton has decreased.

The need to use energy efficiently has been recognized for many years and Outokumpu has worked hard to achieve an impressive record in reducing the amount of energy consumed. Energy reduction plans are incorporated into the Group's Environmental management systems. Even the environmental permits may nowadays contain energy saving obligations. In Sweden the Government requested a certified energy management system according to SS 627750 to be implemented as the condition for refunding the energy tax. The

standard stipulates setting targets for energy efficiency and reporting about the results. In Britain a Climate Change Levy system provides also setting binding targets for specific energy consumption. Outokumpu has committed to energy saving agreements also in Finland, where those have been voluntary without sanctions.

#### Committed to saving energy

Faced with the threats from climate change associated with global warming, governments and industry are increasingly working together

# New energy efficiency projects initiated during 2006

- A new carbon monoxide gas holder in Tornio reduces the need for propane.
- Automation of the heat-recovery system in the Tornio hot rolling mill is improving opportunities for utilizing waste energy from the process. Investments made in past years in heat-recovery systems at Tornio mean that 35 percent of district heating requirements are now met by waste energy.
- Avesta installed scale-breaking equipment that was optimized with new technology according to life-cycle cost analyses, minimizing the use of energy.
- Nyby has worked to utilize waste energy from compressors to vaporize propane rather than using electricity for this.
- Degerfors is now utilizing waste energy from compressors to optimize the use of energy.
- In Sheffield, use of compressed air in the rod mill has been made more efficient by installing a small local compressor in the effluent treatment plant.
- In the Sheffield melt shop, a new preheater for the argon-oxygen decarburization vessel saves natural gas costs up to five percent.



#### TIMO MÄKELÄ European Commission's Environment Directorate General

"The companies with a good corporate responsibility policy are generally the best companies in other respects, as well. Taking care of corporate responsibility issues reduces risk and produces economic benefits. Increasingly, financial institutions and insurance companies expect businesses to show corporate responsibility, and that is why companies are keen to be included in sustainability indexes", says Timo Mäkelä, Director of Sustainable Development in the European Commission's DG Environment.

According to Mr Mäkelä, a new industrial policy that puts the emphasis on environmental competitiveness and employment is being formulated in the EU. Outokumpu and others will have to act even more decisively in the future to reduce emissions and increase energy efficiency.

"Because large volumes of energy are needed in steel production, investment in new technology is very important. In terms of the efficient exploitation of natural resources it is a positive fact that Outokumpu makes good use of recycled steel as a raw material and also refines slag for production purposes", says Mr Mäkelä.



# Instead of taking up defensive positions, get involved.



ENERGY USED 2006			
Unit	Electricity (GWh)	Fuel energy (GWh)	Total (GWh)
Tornio	2 131	1 721	3 852
Avesta	420	474	894
Sheffield	281	162	443
Other	301	352	653
Total	3 133	2 709	5 842

through voluntary agreements. Outokumpu is a participant in such agreements with the national authorities in Finland, Sweden and Britain and many of these arrangements have now been in place for a number of years. In Finland, the Tornio Works joined a voluntary energy-conservation agreement scheme in the beginning of 1990 and the contract was renewed in 1999. The current agreement is ending in 2007. The main objectives of this program have been to promote energy audits and reviews in member companies to identify new, economically-viable energy-reduction projects and financially support relevant investments. Similar agreements in Sweden and Britain have resulted in lower levels of energy taxation in return for agreement to targets for improvements in energy use. In Britain the participation is mandatory in practice, since otherwise the energy tax is really high.

Continual improvement in the efficiency of using energy demands that priorities are assigned to projects in a systematic way. Outokumpu employs a management system in which the energy consumption for each object is listed and quantified. Projects are then selected from among the larger energy consumers. Most Group sites have found it necessary to improve their data collection systems and have done so in order to make their work on energy improvement issues more effective.

There are many ways of improving energy efficiency. Initiatives in place within Outokumpu are many and range through promoting each individual's awareness of energy through training programs, maximizing

the recovery of energy from sources of waste heat, using new energy efficient technology, integrating production processes and improving the material efficiency by reducing the generation of waste.

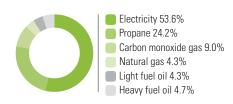
# WORKING TO PREVENT GLOBAL WARMING AND CLIMATE CHANGE

Climate change is a complex issue with global implications for society as a whole. For Outokumpu, key challenges connected with climate change include understanding the impact it will have on the Company's operations and our competitiveness, and how we will address the issue of releases of greenhouse gases associated with our operations.

The major greenhouse gas emissions from Outokumpu operations are direct releases of carbon dioxide from the company's sites as a result of using fuels and process-related emissions from our steel making operations. In 2006, these emissions totaled 1 050 000 tons (compared to 1 045 000 tons in 2005). Economically there isn't any substitute for it for the time being.

Opportunities that enable Outokumpu to combat global warming lie in improving energy efficiency, the reduction of specific coke consumption in ferrochromium operations and through favoring renewable energy when purchasing electricity. Using woodchips to replace fossil fuels is only possible in plant boiler houses. The Group has some 100 MW of renewable electricity capacity at its disposal, and electricity purchases are directed to companies that offer a high proportion of

#### **ENERGY SOURCES**



ORIGIN OF ELECTRICITY	
Renewable sources	56%
Nuclear	34%
Fossiles and turf	10%

hydroelectric power. The majority of the ferrochrome production process in Tornio are classified as a best available technique (BAT) in the European Union system. The specific energy consumption is very close to the theoretical minimum and about one third less than in traditional processes. Extensive use is made of recovered process heat in supplying district heating to the Group's own buildings and neighboring communities.

Outokumpu works in accordance with the European Union Emissions Trading Scheme and engages in continuing cooperation with the authorities on these matters. Data on production, emissions and energy efficiency have been submitted to the authorities for allowance applications in the Kyoto period 2008–2012.

Outokumpu has eliminated the use of ozone-depleting substances from the Group's steel process operations and has also phased out the use of halons in fire protection systems throughout our operations. Methylbromide treated wood is not used in the product packages. But a number of air conditioning systems, which have ozone-depleting substances as the refrigerants, are maintained. These units are subject to ongoing maintenance programs that are designed to minimize the risk of any releases. The use of ozone-depleting substances will be phased out in line with nationally agreed timetables or earlier if appropriate.



#### PEKKA HONKANEN Metso Paper

"These days customers in the paper industry emphasize the importance of sustainable development, and the pressure to conform to requirements is reflected on us as suppliers of equipment. Consequently, we in turn require the same commitment from our suppliers", says Pekka Honkanen, Senior Vice President of Procurement at Metso Paper.

Outokumpu is one of Metso Paper's key suppliers, and co-operation goes back several decades. Metso Paper needs stainless for the manufacture of pulp and papermaking lines, of which Metso Paper is a leading producer.

Mr Honkanen says that Metso values suppliers, who acknowledge their own mark on the environment and make active efforts to minimize it. He cites Outo-kumpu's up-to-date equipment investments as an example of such positive action.

"As a customer, we emphasize quality and reliable deliveries and it is important that we are supplied with the most appropriate material for the purpose. That is why we want Outokumpu to be up to speed on our requirements", says Mr Honkanen.



The message about sustainable development spans the entire supply chain.



#### WATER COOLS, RINSES AND CLEANS

Outokumpu's main production operations use water for cooling, rinsing and cleaning. As all these operations, particularly melting and rolling, require large volumes of liquid, the level at which water is re-circulated is high.

In many of the locations in which we operate, local water supplies are abundant and our consumption has only minimal effect on resources. In no cases does the water withdrawn by Outokumpu account for more than a fraction of the total volume available. At Avesta, for example, our water intake is less than 0.05 percent of the total volume in the river that flows past the plant. The impact of our activities is reduced by the fact that most of the water taken is cooling water, which is returned to the river after use.

In 2006, water withdrawn in Group operations was mostly surface water from rivers or the sea (a total of 26 million m³) or municipal water (1 million m³) originally derived from a river or lake. Rainwater is not used in our processes, but treated together with indirect cooling water. A positive thing is that only small amounts of groundwater was used.

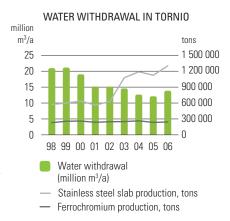
Cooling water is used either in a direct way through contact with steel, or in an indirect way whereby fresh water meets a circulating stream of cooling water in a heat exchanger. In the latter case, the outgoing water is only "contaminated" by being raised to a temperature higher than it was when it was extracted. It is then returned to the watercourse.

High levels of recycling are achieved in both cooling and process waters at many of the Group's sites. The actual rate of recycling can vary from season to season. For example in winter at Tornio part of the cooling water is discharged into the harbor basin to help to reduce the quantity of sea ice.

#### Taking advantage of rainwater

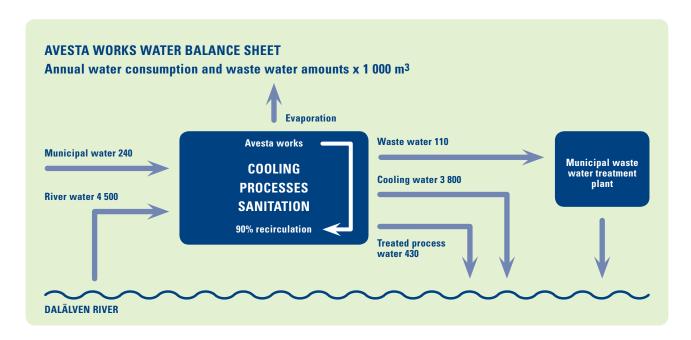
In addition to the surface water used by the Group, rainwater falling on our sites provides significant volumes. Some of this water evaporates, but much of it is collected, mixed with used cooling water and run through oil-separation facilities before being discharged.

In Sheffield a proportion of collected water is being recycled by being used to suppress dust on site roads during period of dry



weather. This has reduced the consumption of tap water. Further recycling opportunities are now being investigated.

Rainwater which falls within the boundary of the landfill site filters down through the slag tips and becomes an alkaline leachate which has to be pumped through a collection chamber into a drain. In Sheffield the newly-issued separate Landfill PPC permit demands that this solution be effectively neutralized. A capital investment was therefore made in a new automatic leachate treatment plant, which has recently been successfully commissioned.





#### ALF TURESSON County Administrative Board of Dalarna

"The starting point is that the requirements of environmental legislation must be met," says Alf Turesson, who works for the County Administrative Board in Dalarna, Sweden, and is responsible for monitoring environmental hazards that may arise as a result of Outokumpu's operations

The Avesta Works, Outokumpu's largest Swedish production unit, is located in Dalarna. According to Mr Turesson, particular requirements for Outokumpu are success in controlling the dusts resulting from handling slag, a periodic nuisance for nearby residents; preventing recycled steel that contains mercury from finding its way into the arc furnace; reducing the quantity of nitrates discharged into the Dalälven river and handling metal hydroxide waste in an appropriate manner.

"Our contacts with Outokumpu work well and in some areas the company is leading the development of technologies that protect the environment, for example the re-use of saltpeter acid and pickling sludge," says Mr Turesson.



Outokumpu must keep dusts, mercury levels and nitrates under control.



# Water withdrawal Surface water, million m³ 25.9 Municipial water, million m³ 1.2 Water discharges Cooling water out, million m³ 7.2 Water water out, million m³ 7.2 Metal discharges to water, t 18.6 Nitrogen in nitrates, t 600

Outgoing water streams from Outokumpu plants are divided into clean cooling water, wastewater from the processes, rainwater and domestic sewage water.

#### **BIODIVERSITY**

Outokumpu production sites are not located in sensitive areas designated as UNESCO World Heritage, Ramsar Sites or UNESCO Biosphere Reserves. The only exception is the Group's Brockville site in Canada, which is located in the Frontenac Arch Biosphere Reserve. Activity has not been found to disturb biodiversity in an unacceptable way.

Although Outokumpu is not engaged in any significant operations in environmentally-sensitive areas, impacts on biodiversity at our production sites are evaluated on a regular basis. Sites are responsible for monitoring their impact on water bodies (e.g. via the fishing industry), air quality and vegetation.

Outokumpu closed two production sites in 2006: one was in Sheffield, Britain (30 hectares) and the other was in Sorsakoski, Finland (5 hectares). Measures related to the closure were taken in accordance with the provisions of the related environmental permits and reports have been submitted to the authorities. No further measures and surveys have been requested.

Outokumpu has ongoing remediation or protection pumping in the US at the Florida Wildwood tube mill, in Finland at an old landfill site used by the Tornio Works and in Canada at an old service center at Montreal. An obligation to begin soil cleaning operations exists at the Hertecant forgery in Belgium. Techniques applicable to this operation are now being sought.

#### **Protection of birds and forests**

At the Group's Sheffield site an area was set up to provide protection for wading birds who might decide to nest during the spring. Activities include checking that nesting birds are not being disturbed and ringing to establish future breeding and migration patterns. In May 2006, a licensed bird ringer from the British Ornithological Trust confirmed that all the eggs of the birds being observed had hatched and that young birds were doing fine.

At the Kemi mine water ponds after the concentrating process are important nesting places for waterfowl, waders and other birds. A study from summer 2006 shows, that many hundreds of bird pairs are nesting at the ponds.

Impacts on biodiversity at our production sites are evaluated on a regular basis

Avesta has some 300 hectares of forest. Outokumpu maintains public footpaths in areas where walking is very popular and has taken measures to run a forestry operation that protects wildlife and plants. This work is certified according to regulations laid down in standards issued by the Forest Steward-

ship Council, an international organization which promotes the managing of forests in environmentally, socially and economically-responsible ways.

# REDUCING EMISSIONS EVEN FURTHER

It is a principle of Outokumpu's operations that best available techniques (BAT) are used to reduce emissions and minimize any harmful environmental impacts that our operations may have. In this context, BAT means process or pollution prevention technology that is economically and technically the best available as agreed and published in reference documents by the European Union. Although the use of BAT techniques means that emissions are at the lowest level achievable today with current technology, Outokumpu is continually developing both its processes and its pollution-prevention techniques in order to ensure that good control of emission levels will also be achieved in the future.

# Regular studies of the impact of emissions

The impact of emissions into the air on air quality in the vicinity of the Group's major production sites is a subject of regular study. For example, the quality of ambient air in the communities of Tornio (Finland) and Haparanda (Sweden) was monitored in 2005 and 2006. Traffic and general dusting of the streets were identified as the factors having the most significant impact on air quality in these locations, and the effect that emissions by the Tornio Works had on air quality was found to be very local. In general terms, air quality in Tornio was just as good as it was in other Finnish communities of similar size. Metal contents of dust were of course highest in samples taken nearby Tornio site, but were on same level than with other European metal producers. No exceedings in limit values were observed. In Avesta the metal content in moss samples taken nearby the plant were lower in 2006 compared to 2001 level.

Outokumpu has supported many studies examining the effects of metal emissions on



both the environment and human health. The Group is currently supporting a study of speciation and the effect of chromium compounds in soil at the Tornio Works site and its surroundings. This research work is being carried out at the University of Jyväskylä (Finland).

#### Impacts of water discharges and runoff

The most significant discharges into water arising from the production of stainless steel are the metal compounds and nitrates that result from the neutralization of pickling acids and rinsing waters coming from cold rolling units. Effluent discharges at all Outokumpu production units are monitored and controlled in order to minimize the impact of releases into water. At the Tornio Works, for example, the natural load of metals that local rivers carry into the sea is much higher than the main discharges of metal from steel making operations.

Nitrate loading originates from the nitricacid-containing pickling liquids used in descaling stainless steels. Because nitrates are highly soluble and their concentration in effluents is low, they escape from the site very easily. The recycling of pickling acids reduces the neutralization amount and thereby the nitrate discharges to water. All of the Group's pickling processes employ recycling techniques or send the liquids used in pickling baths for external treatment after they have been used.

A practical and economically-feasible method for removal of low concentrations of nitrates from water does not yet exist, but a number of studies of the subject have been completed and investigations are ongoing. At Outokumpu's Kemi mine, for example, a project to decrease nitrate discharges by introducing bacteria taken from mine water was initiated in 2006. Research projects aimed at reducing nitrate discharges are also under way at Group's production sites in Sweden, either voluntarily or by requirement in environmental permit.

Outokumpu production sites are located in many different environments and in several countries and therefore the impacts of water discharges differ from site to site. In small production units wastewater is pre-treated on site before receiving final treatment at local municipal treatment plants. One example is our facility in Wildwood, Florida where a new two-step pre-treatment system has been installed to reduce variations in nickel and chromium content in effluent discharged into the City of Wildwood's treatment facilities. This is important for the city as its treatment plant has a low capacity.

# Taking care of the sensitive Tornionjoki river

Tornio Works is situated in the estuary of the Tornionjoki river at the northernmost point

of the Gulf of Bothnia. Due to the location on the border between Finland and Sweden the plant is controlled both by Finnish and Swedish authorities. Site is also close to some nature reserves. In the last few years, activity at the Tornio Works has increased significantly and at full capacity, current production at the plant is three times the level it was in 2002. On the other hand, improvements in the pollution-prevention techniques employed have meant that corresponding increases in emissions have not occurred, instead reductions from previous levels have been achieved in many cases. Studies and continuous monitoring of discharges demonstrate that chromium and nickel discharges to water have

#### A NEW DUST FILTER DECREASES AIR EMISSIONS



Steel industry releases large amounts of dust emission. In the last four years, Outokumpu's steel plants have invested more than 20 million euros in minimizing them.

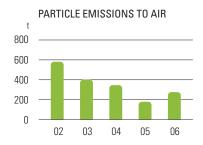
The majority of particulate emissions generated by Group activities originate at the Tornio, Avesta and Sheffield meltshops. For example in 2005 dust emissions were only half of 2004 level. However, the improvement is

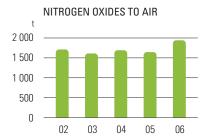
not this straightforward: Dust emissions from the Tornio Works were however subject to a temporary increase in 2006 because of capacity issues scaly hot-rolled coils had to be processed in the site's oldest annealing and pickling line. Currently, this line is not equipped with a proper dust filter system, but emissions of dust will be significantly reduced when a new dust filter is implemented in 2007. At the Degerfors hot rolling mill the new dust filter was installed in 2006. This is why dust emissions are expected to decrease in spite of increasing production levels.

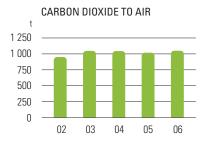
Dust emissions from the Group's operations typically contain lime compounds and metals such as iron, molybdenum, chromium and nickel as alloys. Although these metals are mostly in a harmless form, the dust does also contain small quantities of hexavalent chromium alloys and mercury and is therefore classified as hazardous waste. Transportation and further processing of this hazardous waste requires a special license.

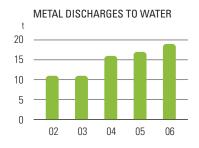
Emissions of nitrogen oxides are generated by the burners in annealing furnaces and are a component in the fumes from pickling baths. There have been attempts to reduce the emissions by investing in both new technology and abatement plants. Outokumpu's production operations at Tornio, Avesta, Nyby and Sheffield now use the latest oxy-fuel or low-nitrogen burner technology and nitrogen oxides are removed from pickling bath fumes by applicable technologies.

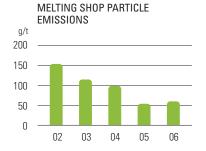












fallen by 60 to 80 percent from the levels observed only a couple of years ago. According to an environmental impact assessment report completed in 2005, possible expansion of the Tornio Works will not cause significant changes to the environment or result in additional risks to either nature reserves or the lives of Outokumpu's neighbors.

Furthermore, fish landed by local fishermen operating near the Tornio Works have been found to be healthy and professional fishing is also conducted close to the works. Research data indicates that releases from the works do not accumulate in the marine food chain.

# WASTE IS RECYCLED WHENEVER IT IS PRACTICABLE

The efficient use of materials is a cornerstone of Outokumpu's thinking in connection with environmental responsibility. In recent years, the Group has completed many research and development projects targeting issues related to materials and has also implemented a number of schemes to reduce levels of waste. One of the most effective ways of reducing the amount of waste produced by the steel industry is to modify melting shop processes so that slag is produced in the form of a product that can be sold on.

#### Slag is not waste

Outokumpu has invested several millions of euros in developing slag-based products including the investment of one million euros in an automatic steel-slag analyzer to help ensure that steel-slag products comply with the necessary environmental and technical requirements.

An increasing quantity of stainless steel slag products are being sold and used each year in Finland, Britain and Sweden. Most are being employed as construction materials. At Tornio in 2006, approximately 111 000 tons of stainless steel slag and 264 000 tons of ferrochrome slag were sold on as products. At Sheffield more than 70 percent of the slag is reused. At Avesta, a road was constructed in 2006 using slag from the melt shop as ballast.

At the beginning of the current decade, the permitting authority decided to classify ferrochromium-slag-based construction products from Tornio site as waste. However, in 2005 Finland's Supreme Administrative Court ruled otherwise. The product fulfils the requirements of the applicable standards and carries the CE marking from an independent verifier. CE marking is a manufacturers declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation.

Tornio Works is participating in the national Uuma Project, which is financed by Finland's Ministry of the Environment. Uuma is a joint project in which industry and the authorities are working to develop the use of by-products in infrastructure construction.

#### Recycling the dust

Dusts and scale collected from stainless steel manufacturing operations are considered to be significant waste streams for the Group. To recover the valuable alloying elements such as nickel, chromium and molybdenum that are contained in these waste streams, the dusts and scale are collected and recycled whenever this is practicable. Specialist recovery plants such as the Group's DC Arc Furnace in the Sheffield melt shop or external treatment facilities operated by other companies are employed. The total quantity of dusts and scale collected and treated in 2006 was about 60 000 tons.

#### **Hazardous wastes**

When required, both hazardous and non-hazardous waste from production units are pre-treated and sent to appropriate treatment facilities or to landfill sites licensed to accept the relevant materials. Hazardous wastes (oily waste, steel-making dust and hydroxide sludge) generated by the Group's operations in 2006 totaled 100 000 tons. Outokumpu owns and manages landfill sites at the Group's three main production sites in Finland, Sweden and Britain.



# ENVIRONMENTAL IMPACTS OF THE STAINLESS STEEL LIFE CYCLE

Viewed from a life-cycle perspective, stainless steel has many good qualities. Although the initial environmental burden caused by steel manufacturing may perhaps appear high, the situation is balanced out by the fact that stainless steel products last a very long time, and by the material being fully recyclable. Also, products made out of stainless steel do not require coatings, corrosion-protection measures or significant amounts of maintenance.

Traditionally, stainless steel has always been used when cleanliness and hygiene is important, for example in food processing, when handling beverages or in medical appliances. As stainless steel is inert and corrosion resistant, it has no impact on the materials and foodstuffs it is in contact with. Also, foodstuffs do not convey any odor or taste to stainless steel.

The corrosion resistance of stainless steel also prevents metals leaching into the environment. This has been confirmed by studies that exposed Outokumpu's stainless steel to outdoor urban environments for periods of several years. The results obtained showed that the concentrations of metals such as iron, nickel or chromium in water running off stainless surfaces were extremely low, far below the

limits for acceptable concentrations in drinking water or the reported ecotoxicity values for plants and other organisms.

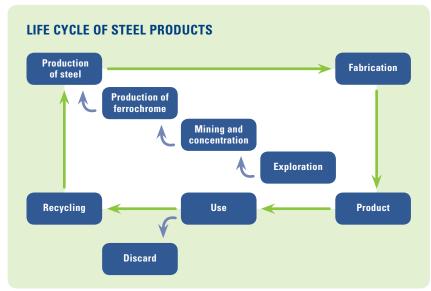
# High-speed train – a kitchen sink in its previous life?

Recycling does not have any adverse effect on the quality of stainless steel. The same stainless steel can be recycled an infinite number of times to form new high-quality stainless steel products. The high-speed train you're riding in may well have been a modest kitchen sink in its previous life.

A great deal of stainless steel is recycled in the world each year. Statistics from the International Stainless Steel Forum show that recycled steel used to manufacture stainless steel represents 60 percent of global stainless steel production, with 35 percent being recycled stainless steel and 25 percent being recycled carbon steel. In Europe, the amount of recycled steel used in stainless steel manufacture is about 70 percent, somewhat higher than the global average.

For Outokumpu, the recycled steel used as raw material amounts to 86 percent of the total production of crude stainless steel. Approximately half of this recycled material is stainless steel, the remainder is carbon steel.







#### Reusability depends on the application

The extent of end-of-life recycling does of course vary depending on the end use to which the stainless steel has been put. In general, recycling rates are higher when stainless steel

can be easily identified in the waste sorting process. For example, excess or waste stainless steel from industrial manufacturing processes has an estimated recycling rate of almost 100 percent because the knowledge about what materials have been used still exists, as do routines for separating valuable metals. When stainless steel is used in construction projects or for architectural purposes, it is safe to assume similar high rates of recycling for the same reasons. Recycling rates for consumer goods will be lower, with variations depending on the kind of product in which the material has been used. Small items such as cutlery that enters municipal waste streams may not be identified and sorted out. Large kitchen appliances such as dishwashers or washing machines are usually easier to identify, allowing the stainless steel these items contain to be reclaimed.



# FROM ORE TO METAL – CASE TORNIO

The Kemi mine and the Tornio ferrochrome plant produce ferrochrome, the most important alloy used in stainless steel manufacture. The Kemi mine is the only chromium mine located in the European Union.

Because the ore minerals are very stable and chemicals are not used in the beneficiation process, operations at the Kemi mine have only a minor effect on watercourses. Metal discharges in particular are small, their effect only being observable as slightly higher nitrogen, solids, calcium and iron concentrations in watercourses.

The largest emissions into the air result from open-pit mining activity, the transportation of ore and waste rock, from operations in the product-loading area and from piles of concentrate. During 2005, the Kemi mine made a shift from open pit operation to underground mining. The effect of particulate emissions on air quality is monitored by studying Suspended Particulate Matter (SPM).

The mine's piles of gangue (waste rock), open-pit mining activities and the beneficiation and clarification basins all have a long-term effect on the landscape. Tailing basins are landscaped after they have filled up. The gangue will be used in backfilling the underground mine.

#### Molten ferrochrome means efficiency

The Kemi mine's entire production of concentrate is delivered to the Tornio ferrochrome plant, which employs the best and most energy-efficient technology available. The ferrochrome produced is delivered to the Tornio steel melt shop with the processes involved being linked in an energy-efficient manner. A large proportion of the ferrochrome is delivered in molten form, and the carbon monoxide produced during ferrochrome manufacture is used as fuel in the steel mill, replacing other fuels.

#### From hot and black to cold and gleaming

In the steel melt shop, recycled steel and other alloying elements are added to the molten ferrochrome while impurities detrimental to the steel's final properties are removed. After it has been worked into its final composition in the melt shop, the molten stainless steel is cast into slabs. At the hot rolling mill, these slabs are rolled into black hot strip, which is delivered to the steel mill's largest unit – the cold rolling mill – for further processing. At the cold rolling mill, the black steel strip is formed into gleaming sheet steel and coil in accordance with customer requirements.

#### Not enough recycled steel

Even though steel is the material recycled most often in the world, the amount of stainless steel being recycled is not sufficient to satisfy the current need for raw materials in stainless steel melt shops. This is a consequence of both the strong increase in stainless steel consumption over recent decades and the long service lives delivered by stainless steel products. The average growth in demand for stainless steel has been 5-6 percent on an annual basis. Assuming that the average lifetime of stainless steel products is 20 years, recycling all of the stainless steel produced those 20 years ago would satisfy only 35 percent of today's raw material requirements. If the average product lifetime were increased to 30 years, the steel that would be available for recycling would cover only 20 percent of current raw material requirements. Recycled low-alloy steels and virgin alloying elements are also therefore used as raw materials.



# ENVIRONMENTAL IMPACTS OF TRANSPORTATION

The transportation sector is the fastest growing consumer of energy. It is therefore essential to optimize the different modes of transport and make it easy to shift the mode. When choosing the transport mode, in addition to cost, the environmental effects of transportation are considered. On average, ships and trains are more environmentally friendly than trucks and lorries.

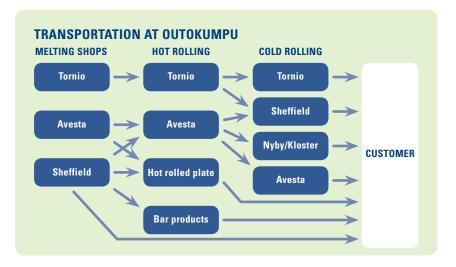
Outokumpu has developed a Cargo Handling Manual. Its target is to reduce the insurance and quality costs and to make the Group's logistics strategy clear to customers. Outokumpu wants to be the most reliable and cost-efficient supplier of stainless steel products in Europe and to deliver its products in the most environmentally-friendly way possible. Another aim is that all companies who supply the Group with transport services should have ISO 14001 certification.

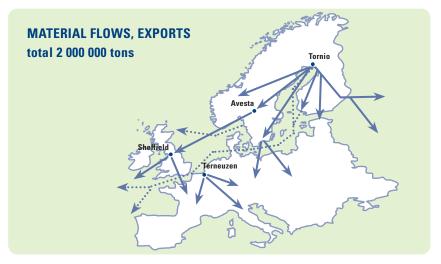
# More transportation using ships and trains

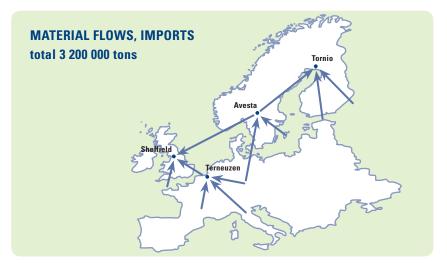
There is a transportation system that uses seagoing vessels between Tornio in Finland and Terneuzen in The Netherlands. During 2006, utilization of the southbound route from Tornio to Terneuzen has increased by some 18 percent compared to previous year. This corresponds to some 90 000 tons of semi-finished stainless steel and to a reduction of approximately 3 600 truckloads. The modal split in transportation out of Terneuzen reveals a positive trend of 20 percent towards the use of rail transportation. This is an increase of some 12 percent points and corresponds to about 100 000 tons, a reduction of approximately 4 000 truckloads.

# A new rail-gauge shifting device saves time

The fact that Sweden and Finland have different rail gauges has been a challenge for rail transportation between Outokumpu sites in Finland and Sweden. Earlier, all transport vehicles were reloaded at a terminal located in either Haparanda or Tornio, an operation that took 4–5 hours. Development of a new rail-









gauge shifting device has made it possible to transport a fully-loaded train across the border between Finland and Sweden in just 30 minutes, and four new cargo wagons have been transporting Outokumpu steel this way since April 2006. Transportation by train offers environmental, safety and cost benefits.

Avesta is planning to increase the usage of rail when transporting products to major European markets. The outcome is being monitored as one of Avesta's performance indicators and developments so far have been very satisfactory. In 2005, rail represented 24 percent of all transportation to markets in Germany, Italy and Britain. In 2006 there was a very significant increase: the corresponding figure was 34.6 percent.

# Plenty of carbon dioxide emissions from transportation

Emissions of greenhouse gases are a subject of increasing focus. As has already been described on page 22 of this report, Outokumpu's operations generate significant amounts of these gases. In addition to the process-related emissions of carbon dioxide there are also carbon dioxide emissions connected with transportation, something about which we do not currently have Group-wide information. Even so, emissions from steel manufacturing processes represent the major share of Outokumpu's carbon dioxide emissions.

At Avesta, where this subject has been studied in detail, emissions from manufacturing operations generate two thirds of total carbon dioxide emissions, while one third originates from transportation of products and raw materials. The moving of personnel by car, train and airplane amounts only to one percent. In the near future the main focus will be on the reduce of carbon dioxide emissions from transportation of products and raw materials.



# EXPENDITURE ON ENVIRONMENTAL PROTECTION AND INVESTMENTS

Environmental investments by Outokumpu in 2006 totaled some 8 million euros.

Operational costs in 2006 totaled 52 million euros, of which the treatment of waste and disposal amounted to 7 million euros.

Tornio Works made a voluntary payment of 170 000 euros as compensation to Finnish and Swedish fishermen for harm caused to them as a result of dredging operations in Tornio harbor in 2004–2005.

Provisions and guarantees related to environmental considerations at the end of 2006 totaled 29 million euros.

# Largest environmental investments in 2006:

- Tornio (Sellee, Liuhanlahti): construction and modification work of landfill and treatment areas, 1 861 000 euros
- Tornio: renewal of a coal gas holder, 471 000 euros
- Tornio: process changes and reparations in regeneration plant, 420 000 euros
- Tornio: additive scrubber for RAP5line, 324 000 euros
- Tornio melting shop: continuous dust measurement system, 290 000 euros
- Sheffield melting shop: dust control measure at slag handling
- Nyby: the construction of a new hexavalent chromium reduction plant for rinsing water from electrolytic pickling started in September (0.2 million euros)
- Kloster: exhaust filter for oil mist
- Jakobstad: district heating
- Kemi: finishing the construction
- · work of new mill tailings pond
- Wildwood: scanacon acid recovery unit of higher capacity, 160 000 euros

#### PERMITS, SPILLS AND NON-COMPLIANCES

All of the Group's larger production sites have environmental management systems (EMS). Almost all of these systems are certified to ISO 14001, the international standard for environmental management systems. This way of operating helps to avoid many spills and accidents that could result in harm to the environment or to humans.

All Outokumpu sites have valid environmental permits or applications for such permits have been filed because of the renewal requirement of temporary permits, capacity increase or some other reason required by authorities

In general terms, emissions and discharges resulting from the Group's operations during 2006 were at normal levels and in compliance with environmental permits. During the year, however, under 30 minor malfunctions or non-fiscal, breaches of environmental permits were reported to authorities. Twenty of these incidents occurred at plants in Britain, where they were registered as breaches of environmental permit, one occurred at the Tornio Works, three at both Degerfors and Örnsköldsvik/Svedjeholmen, and one each at Avesta and the Wildwood tube mill. The last one was also registered as a breach of environmental permit. The incidents at British plants were related to malfunctions in equipment intended to prevent emissions of dust and nitrogen oxides. Two of the Degerfors incidents and one Tornio incident were also related to failures in dust filtration equipment. The Örnsköldsvik and Wildwood incidents involved excess levels of fluoride (Örnsköldsvik) and nickel (Wildwood) in effluent water. Avesta had problems in a mixer used in neutralizing pickling acids and the dredging of Tornio harbour caused increased level of solids in sea water which resulted in temporary excess levels in chromium and nickel content in water withdrawn to Tornio site.

In Britain, since permitted levels are very close to normal operational levels, a small deviation in operational conditions or a technical problem with abatement equipment easily Systematic work
helps to avoid many
spills and accidents
that could harm
the environment
or humans

leads to the breach of an environmental permit that is registered by authorities. In Finland and Sweden temporary exceedings are not registered by authorities. All the breaches of environmental permits that occurred in 2006 at Group sites were temporary, were identified quickly and resulted in only minimal environmental impact.

In November, a component containing the radioactive element Am241 melted at the Tornio Works. The radiation detection system triggered an alarm and the contaminated slag and refractories were correctly isolated and sealed on site to await further processing.

At the request of the environmental authorities, a project has been initiated to reduce emissions of dust and fumes from the Tornio Work's oldest annealing and pickling line. In Britain, the Environmental Agency was not satisfied with our response to its request for improvements of slag handling in the Sheffield melt shop, and requested that the slag-handling operation be fully enclosed within a building. The Group is considering an appeal, since the agency's request goes well beyond the BAT reference conditions.

Outokumpu is not a party to any significant juridical or administrative proceedings concerning environmental issues, nor is it aware of any environmental risks that would have a material impact on the Group's financial position.



# SOCIAL RESPONSIBILITY

Outokumpu cares about its staff. In 2006, Outokumpu defined its leadership principles and launched a program of strategic leadership training. The company maintains contacts with educational establishments and encourages young people to train for a career in the steel industry.

Our ethical statement and corporate responsibility policy guide us in treating people in a fair and equal manner, irrespective of ethnic origin, nationality, religion, political views, gender, sexual orientation or age. We oppose the use of forced or child labor. We do not condone corruption or bribery.

Outokumpu's goal of becoming the undisputed number one in stainless steel does not only signify that we need to achieve better earnings than our competitors, but also that we need to develop as an employer. We aim to make Outokumpu the most attractive employer in the industry. The excellence programs, which form part of our vision of reaching the number one spot, rely on the participation of our entire personnel base. The projects incorporated into the programs give the number-one experts – the employees – the opportunity to plan and implement changes which improve the production processes and customer relationships and make them more effective and safer. The programs also involve extensive training.

#### **PERSONNEL**

At the end of 2006, the Group employed over 8 000 people in about 30 different countries. The number of Outokumpu personnel was reduced from the previous year's figure: at the end of 2005, the Group employed about 9 000 people. The average age of employees was 43.4 years. Turnover of personnel was 10.1 percent. The average length of service was 16.4 years.

The majority of our employees, over 7 000 in total, were within the scope of collective agreements in 2006. Of our personnel, 426 were on fixed-term contracts; the rest were permanent employees. Excluding the 900 or so workers employed by the copper business (which will be sold, as previously announced), 94 percent of all Outokumpu employees were located in Europe. The majorety worked in Finland, (34 percent), Sweden (38 percent) and Britain (10 percent). Only 16 percent of employees were female.

#### Personnel reductions resulting from the listing of Outokumpu Technology and the cost cuts

Due to the organizational changes effected during the year, the number of Outokumpu personnel was reduced by about 3000 people from the 2005 figure. The greatest of these changes was the stock exchange listing of Outokumpu Technology.

The codetermination talks in connection with the savings campaign of fixed costs of 2005 were completed in the first six months of 2006 and the agreed cuts in personnel were carried out. As a result about 1 250 employees left the Group. Due to the closure of the Sheffield cold rolling plant 670 employees were made redundant. Furthermore, in the places where operations go on, there were 796 redundancies. Of these, 314 were in Finland, 349 in Sweden and 133 in other countries.

Freedom of association prevails in Outokumpu. Consequently, in practically every operating location personnel are members of trade unions in line with the rules and regulations of the local labor market culture.

Only a total of 15 working days were lost due to strikes, while the corresponding figure for 2005 was 510.

# Development of a uniform corporate culture and training

Outokumpu's human resources policy focuses on the management of resources and performance assessment as well as the development of skills and the strengthening of unity throughout the whole company. In 2005, the Group-wide human resources strategy defined as the targets of personnel management supporting a unified Outokumpu corporate culture, safeguarding the availability of competent personnel, evolving a harmonized performance and development dialogue model as well as evaluating and developing the incentive systems.

KEY FIGURES		
	2006	2005
Sales/person, € million	0.7	0.5
Incentives of total renumeration costs, %	4.2	4.6
Training costs of total renumeration costs, %	1.1	1.5
Training days/person	2.9	5.0
Days lost due to strikes	15	510
Turnover, %	10.1	5.7

PERSONNEL BY COUNTRY		
31 Dec	2006	2005
Europe		
Sweden	3 061	3 141
Finland	2 802	2 951
Britain	845	1 397
The Netherlands	233	241
Germany	216	231
Italy	138	142
Other European countries	379	394
	7 673	8 497
North-America		
The United States	388	361
Canada	33	38
	421	399
Asia	35	38
Australia	26	25
Africa	5	5
Group total	8 159	8 963
Copper Tube and Brass	915	1 335
Total	9 074	10 298



Outokumpu's human resources policy rests on the principle of ongoing employee development.

The company offers continuous opportunities for the development of skills and competence

In 2006, Outokumpu's uniform corporate culture was strengthened by defining the leadership principles and practices and launching their implementation by means of a strategic leadership training program. Annual evaluations are done to increase the knowledge of corporate's skill resources in order to take advantage of the right people in right places.

# Linking of development dialogues and performance bonuses

The development dialogues each employee has with their manager are an integral part of Outokumpu's way of operating, and they have proved a useful tool for driving the human resources policy. A Group-level, harmonized practice and model for conducting development dialogues will be adopted in 2007. This will ensure that development dialogues cover the entire Group personnel. As the change will be gradual in some units, the process will only have comprehensive, group-wide coverage in 2008.

The new model will clarify the link between work performance and reward and it





#### PETER HÅKANSSON AND KENT KÄLLIN Outokumpu Thin Strin Kloste

Outokumpu Thin Strip Kloster

"The new leadership principles and general personnel policy must be followed through at every level. Managers need to show their people skills as well as their technical knowledge," says Kent Källin, who has worked at the Kloster plant for more than four decades in a variety of positions including foreman and union representative. Peter Håkansson, a foreman who has worked at the same plant for some 15 years, also emphasizes the importance of good leadership: "Managers - even plant managers - should show that they are present in the workplace."

Both men highlight employee development. "I am certain the Group wants to take care of its employees. New projects, for example, offer development possibilities and the Production Excellence program is based on involving operational employees," says Mr Håkansson.

53 million euros has just been spent on expanding the Kloster plant. According to Mr Håkansson, the investment has improved employee confidence and been welcomed by everyone in the town of Långshyttan. It is Mr Källin's hope that Outokumpu will also invest in special grades in the future.

Managers should be present and display their people skills.



will also enable immediate feedback on the two. Incentive bonuses paid in 2006 accounted for 4.2 percent of total salaries, while the corresponding 2005 figure was 4.6 percent.

# OCCUPATIONAL HEALTH AND SAFETY

Outokumpu is committed to providing its personnel with a healthy and safe working environment. The Group is also accountable for the safety of contractors and suppliers at all times when they are working at Outokumpu's production plants. The basic principle is that they receive the same occupational safety training and induction as Outokumpu's own employees. Throughout the Group, all management committee and equivalent meetings are kicked off with a safety review.

Our employees have access to occupational health services. We arrange regular health examinations for those employees who are exposed to health risks. Outokumpu offers its employees rehabilitation and different kinds of sports supporting well-being at work.

#### **Accident prevention, risk awareness**

The annual theme for 2005 was occupational safety at Outokumpu. That year a target was set for occupational safety, to reduce the rate of accidents to less than five per one million man-hours by 2009. Each unit and plant also has its own annual interim targets. The target set for 2006 was a maximum of 14 accidents per one million man-hours. The actual rate of accidents in 2006 was 17 accidents (18 in 2005). No fatal accidents occured. The figure includes not only the work accidents suffered by Outokumpu's own personnel, but also those suffered by contractors' personnel. In 2005, the lost time injury frequency rate in the member companies of the International Iron and Steel Institute within the EU was 10.52 per million man hours.

Outokumpu's this year's annual safety award went to Avesta for good accident prevention work and steadfast development of safety training. At Avesta, the annual rate of accidents in 2006 was 11 accidents per one million man-hours. The annual target had been set at below 11.

An essential part of raising safety awareness and preventing risk situations is the compilation of data on near misses. Outokumpu staff is encouraged to report any near misses that they may observe during working hours. In 2004, only 977 near misses were reported, but in 2005 the figure was 2 795 and 3 478 in 2006.

# Training to increase occupational safety

In principle, every employee and every contractor working at Outokumpu receives the same training. At Tornio Works in Finland, all contractors must have a national occupational safety card which requires a day's training and the passing of an examination. More than ninety percent of Outokumpu's own employees working at Tornio Works have the safety card.

Avesta in Sweden has adopted an Internetbased training program and a related electronic examination. Contractors' employees are also required to pass the examination. Of Avesta's own employees, 99 percent had passed the exam by the end of 2006. At Nyby in Sweden, the entire personnel of the cold



rolling plant undertook a half day of training in occupational safety in 2006.

The Outokumpu occupational safety video "Make the Right Choice" won the World Media Festival Intermedia-globe GRAND PRIX in Hamburg in May 2006. "Make the Right Choice" beat off competition from about 600 other films. The video has been published as a DVD containing five different language versions. It is used by different units in connection with induction and training sessions.

#### Healthy in the workplace

Outokumpu provides occupational health services at its plants in line with national legislation and local needs. The care is provided either by the companies' own health centers or by external service providers. The health

### **>>**

#### Outokumpu's safety statement

- Make it Zero all injuries are preventable
- Management as well as each individual employee and contractor are accountable for safety
- Safe work practices are an essential part of the work skills and a condition of employment
- · Safety training is continuous
- Safety audits are conducted regularly
- Incidents and near misses are investigated and reported without delay
- Corrective actions are properly taken
- Safety means good business, and well-being for our employees



care activities focuse on improvements in the working environment. The well-being of personnel is also monitored by health examinations and fitness tests. At some sites, the occupational health centers also offer routine medical services.

In 2006, on average 6.2 percent of working time was lost due to sicness and accidents. Five occupational diseases were diagnosed during the year. Industrial hygiene measurements are carried out at production plants to monitor work-related exposure, such as the levels of exposure to noise and dust. Issues relating to the working environment are also studied in joint research projects which are carried out in collaboration with universities and specialist institutions.

Health risk assessment of metallic and trivalent chromium, which was commissioned by the International Chromium Development Association and the International Stainless Steel Forum, was completed in 2006. The project was carried out over a period of five years by the Finnish Institute of Occupational Health, and representatives of Outokumpu were actively involved. The results indicated that there is no need for further information and additional risk reduction measures concerning metallic chromium.

At Outokumpu, AIDS awareness is promoted as part of the general information on healthy living which health personnel disseminate. The HIV infection rate in the communities around the production sites has not given any rise to more extensive campaigns.

# EMPLOYEE DEVELOPMENT AND LISTENING TO EMPLOYEES

Continuous development of our staff is at the core of our human resources policy. We offer ongoing training as well as opportunities to develop skills and competence. The most visible projects carried out in the Group-level training program implemented in 2005 were the training of change agents for the production excellence program and an extensive program of management training.

Training costs amounted to 1.1 percent of total salaries in 2006, while in 2005 they were 1.5 percent. The Group offered 2.9 training days per employee in 2006. The corresponding figure in the previous year was 5.0.

#### Training to cover different needs

The charting and exploitation of internal potential is a vital part of Outokumpu's recruitment policy. Key positions are mainly filled by people already employed by the Group. At the end of 2005, Outokumpu adopted the eOrientation induction system, which targets both new and old Group employees.

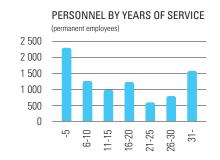
Outokumpu employs a Group-wide training program that supports personal development. It is intended for highly educated employees who have already worked at Outokumpu for a few years. It also includes teamwork discussion on matters of corporate responsibility. For those who have been employed by the Group for a longer period, Outokumpu offers a management skills training program. In 2007, Outokumpu will launch an inter-

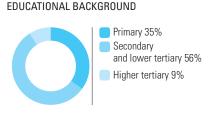
All people are treated equally Discrimination and bias are not tolerated

national trainee program targeting young, newly-qualified talent.

Along with the Group-level training programs, staff training concentrates on locally implemented training to maintain professional competence. Various units also arrange joint training for their own personnel. In 2005, Avesta Works organized a training event for its own personnel, in which the company's strategy, current situation and challenges were discussed interactively. In 2006, a continuation session took place, when about 100 Avesta workers participated in the production of short films on the same topics. The entire personnel of the Avesta Works was given the opportunity to view the final results during a film festival organized in the local cinema.









# Investing in change agents and the management

The second half of 2005 saw the start of programs for production and commercial excellence. These programs have led to huge investments in training, starting with the programs and continuing in 2006. So-called change agents, whose role it is to act as drivers for the achievement of the programs' objectives, are trained for both programs. The training program for change agents will provide existing and future key managers with motivations and skills to drive through in the Group the changes required by the excellence programs.

In March 2006, Outokumpu published its own leadership principles and at the same time launched its strategic leadership training program. Over 60 of Outokumpu's global managers participated in the training in 2006. The dissemination of the principles of Outokumpu's desired management model will be continued in 2007 and 2008 in the form of team workshops. The program also covers issues relating to ethics and responsibility.

As in the training of change agents, leadership training concentrates on tangible and practical exercises. In the training sessions, the managers worked in nine teams. Each team was charged with drafting an operating and execution plan in a single subject area which has significance in relation to Outokumpu's success.

# Opening communication channels between management and personnel

The Outokumpu Personnel Forum is a consultation and information channel and collaboration medium shared by Outokumpu's personnel and management. It complies with an EU directive and comprises 33 Outokumpu personnel representatives from different operating locations as well as representatives of the company's top management and human resources. Generally, the Forum convenes annually. In 2006, the fifteenth annual meeting was held.

A working committee elected by the Outokumpu Personnel Forum is responsible for ongoing co-operation between personnel and management. Due to the changes in Group structure, it was agreed that membership was reduceded from eight to six members. The committee convened eight times during the year. The working committee is charged with acting as the corporate management's consultation body in matters relating to personnel and human resources strategy. In order to further the flow of information, the working committee meet with top management regularly every quarter, and more often if required.

Personnel representatives and the management have agreed to develop the Outokumpu Personnel Forum and its working committee operationally in 2007. The aim is to achieve positive development from the point of view of both parties.

#### Toward equal opportunities at Outokumpu

The ethical principles of Outokumpu Group require that all people are treated equally. Discrimination and bias are not tolerated. The Group adheres to international employment agreements and opposes the use of forced and child labor.

A recommendation for a statutory equality plan for Outokumpu's Finnish business units has been drawn up in co-operation with employee representatives. In early 2006, a full comparison of all wages and salaries was completed in the Swedish business units. The aim is to achieve statutory equality in wages and salaries, where the amount of pay is relative to the work responsibilities and competence, not the gender of the employee.





# SMALL-SCALE INDUSTRY FOR SWEDISH INDUSTRIAL TOWNS



Visent Invest is an investment firm owned by Outokumpu. Its job is to develop small and medium size enterprises in towns in Sweden, where Outokumpu operates. Since its establishment in 1992, Visent Invest has been involved in the creation of about 500 new jobs.



Visent Invest finances promising small and medium size enterprises through shareholdings or by providing loans. The basic idea is that the enterprise gets an initial boost, and Visent Invest leaves the venture only when the company concerned is firmly on its feet. Companies supported by Visent Invest in 2006 employ about 140 people in total. The numbers of employees in the individual companies vary between two and almost 40. The companies' operating sectors also vary greatly. They include, for instance, a recycling firm and a manufacturer of lift doors in Degerfors and an IT company and a workshop producing rainwater chutes in Avesta. To date, Visent Invest has supported about 60 different companies. In its operating locations, Visent Invest has become a kind of leading star in the field of corporate finance: whenever it provides financial support for a particular fledgling company, the company concerned finds it easier to attract other investment companies and banks to support it.



# LOCAL COMMUNITIES AND EDUCATIONAL ESTABLISHMENTS

Outokumpu may be a global corporation, but it is also a significant employer in small and some slightly larger communities. As part of the local community, Outokumpu is actively involved in collaboration with schools. Through this work the steel industry is made known to local people, and young people are encouraged to acquire training in the sector. Outokumpu also supports children's and young people's leisure activities in particular, and in general it promotes local activities having links with the steel industry. Many of the business units organize regular open house events for local people.

#### **Future metal industry specialists**

Outokumpu organized actively visits for pupils and offered plenty of practical training for students from polytechnics and universities. Experts from Outokumpu visited schools and universities to talk about the manufacture and characteristics of metals as well as environmental and other timely issues. Various units also operate a 'fostering' scheme with local schools. The schools received special sponsoring from Outokumpu for projects in mathematics or natural science. The more gifted pupils are offered scholarships.

Furthermore, the Outokumpu Group is a member of the Stratos program for international commerce which is run by the Helsinki University of Technology as well as a corporate partner of the Helsinki School of Economics. In 2006, two discussions sessions on corporate responsibility were organized. Discussion along the same lines will continue in 2007. The 2006 training day for Outokumpu's Stratos students dealt with the commercial excellence program.

Polytechnic and university students of various disciplines completed diploma work for different Outokumpu units. For example in 2006 12 diplomas for Tornio research center and 3 diplomas for Avesta research center were completed.

The collaboration with educational institutions is not the only way in which Outo-

Product safety is a subject of continuous development at Outokumpu

kumpu promotes the spreading of know-how in steel and technology. In the Bergslagen district of Sweden, for instance, Outokumpu is participating in the Triple Steelix project which supports innovations and production ideas relating to stainless steel.

# The greatest technology award in the world

Outokumpu is continuing as a corporate partner for the Millennium Technology Prize, the world's largest technology award. The prize is presented for the technological innovation that has made the greatest positive impact on the quality of life in the world. The award, which gives consideration to all technological fields, has the ultimate purpose of guiding technological development in a more humane direction. The prize, amounting to one million euros, is awarded every other year. The 2006 award was awarded to Shuji Nakamura, the Japanese inventor of the energy efficient LED light sources.

#### **Research and development**

Investments totaling 17 million euros were made in research and development in 2006. Outokumpu not only conducts research work independently, but also in collaboration with its customers and with various research institutes and universities. Outokumpu wants to develop new, more durable and lightweight steel grades and manufacturing methods which are more environ-

mental friendly. Innovative and completely new stainless applications are also being sought. Environmental friendliness is an important part of the development. Avesta and Tornio research centers have developed in co-operation with universities for example the utilization of waste. In 2006, three patent applications were submitted to protect new inventions.

#### **PRODUCT SAFETY**

Stainless steel is hundred percent recyclable. The end products of it comprise everything from spoons to medical products. Due to its hygiene properties, stainless is an uncontestable choice in the food industry. Milk tanks, tankers, the fish and meat processing industry and wine producers also benefit from another characteristic of stainless steel: it does not give off any smell or taste. Heavy industry, for its part, uses stainless in the transportation and storage of oil, gases and other hazardous materials, while the automotive industry uses it in catalyzers and exhausts. In every household, stainless steel is found in cutlery, razor blades and household appliances, for instance. It is also increasingly used as an interior decoration element and a building material.

#### Stainless is non-allergenic

For more than decades, stainless steel has been used to improve and simplify the preparation, handling and transportation of food. The metal concentrations in foods that have been prepared in stainless steel dishes have been tested and found to be negligent in relation to the amounts that occur naturally in foodstuffs.

Stainless steel is an alloy, the characteristics of which differ from those of the alloying elements in it. For example, stainless often contains about eight percent nickel, which is known to cause contact allergies. Tests indicate, however, that most common nickel-containing stainless steel grades do not cause allergic reactions even in individuals who have a diagnosed nickel allergy.

#### RAIMO RONKAINEN City of Tornio

"I hope that Outokumpu will operate in line with the principles of sustainable development and that by drawing attention to its operation, it will accelerate social development, too", says Raimo Ronkainen, Mayor of the City of Tornio.

Outokumpu's largest production plant is located in Tornio. Along with the brewery and the sock factory, it is one of the more notable companies in the town of just over 22,000 inhabitants. Mayor Ronkainen has co-operated with Outokumpu in connection with projects relating to the water supply, the port and to planning. In his opinion, Outokumpu's operation is well managed, always seeking the best possible outcome, be it in the quality of the steel, environmental matters or working conditions. Outokumpu and its employees are a positive presence in the City and in events organized by the City. The tax that Outokumpu pays to the municipality is an important source of income, which is used to maintain municipal services.

"I think it is important that the factory's operation is as environmentally-friendly as possible. By openly communicating with the public it avoids unnecessary speculation", says Mayor Ronkainen.



# An individual company's example can accelerate social development.



Outokumpu provides its customers instructions on safe use and processing of the material

#### Instructions for safe processing

There are marketing organizations, such as Euro Inox as well as nickel, chromium and molybdenum organizations that provide the general public and the users of stainless with information on its health and environmental impacts. They publish product information leaflets, and Outokumpu is involved in drafting these leaflets. Outokumpu provides its own customers product safety information on its own products, with details of health and environmental impacts.

Although stainless steel is harmless as a final product, its further processing might involve risks which must be taken into account. For instance, inhaling welding gases may be harmful. However, even such risks can be eliminated by using the correct protective equipment and observing safety instructions. This information can be found in the Material Safety Data Sheet for Outokumpu stainless steel.

Naturally, all of Outokumpu's products are tested in the company's own laboratories. This ensures that they meet stringent technical criteria.

Every unit applies its own quality control system. The minimum requirement set by the Group quality control policy is compliance with the ISO 9001:2000 standard. 97 percent of Outokumpu's production sites and service centers have a certified quality management system.

# COMPARISON WITH GLOBAL REPORTING INITIATIVE GUIDELINES

Global Reporting Initiative (GRI) is an international initiative of the United Nations, which aims to apply to reporting on corporate responsibility the same widely accepted operating model as already applies to financial reporting. Hundreds of companies worldwide report on the economic, environmental and social aspects of their operations in line with the indicators given in the GRI guidelines on the reporting of sustainable development. On the whole, Outokumpu applies the guidelines set in 2002.

GRI reporting guidelines	Outokumpu report, page	More information/ annual report, page
Vision and strategy	2, 4–6	2–3
Profile	inside covers, 3, 11	18–25
Report scope and profile	inside covers, 1	
Governance structure and management systems	4–9	46-51
Economic impacts		
Customers	10, 11, 13	1, 26–28
Suppliers	11, 13	26–28
Employees	10, 11, 13	34-35,38,78,93-95
Providers of capital		
Public sector	13	79–81
Inderect economic impacts		
Environmental impacts		
Materials	14, 15, 18, 20, 30	29-32
Energy	20, 22	36
Water	24, 26	
Biodiversity	26, 27	
Emissions, effluents and waste	22, 27–29	
Suppliers		
Products and services	29	1, 18–25
Compliance	33	
Transport	31, 32	29–32
Overall	33	
Social impacts		
Employment	34	34–35
Labour/management relations	39	34–35
Health and safety	37	36-37
Training and education	38	34–35
Diversity and opportunity	34	
Strategy and management	34	2-3, 46-56
Equality / non-discrimination	34, 39	
Freedom of association and collective practices	34	
Child labour	34	
Forced and compulsory labour	not relevant	
Disciplinary practices	not relevant	
Security practices		
Indigenous rights	not relevant	
Community	13, 40	
Bribery and corruption	7, 9, 34	
Political contributions		
Competition and pricing	7, 9	
Customer health and safety	42	
Products and services	3, 40, 42	
Marketing communications / advertising		
Respect for privacy		
,		

Reported based on information available

Not reported

More information can be found on our Internet page www.outokumpu.com

Reported based on GRI

## **GLOSSARY**

#### **BAT (Best Available Techniques)**

The technology that takes into consideration the technologically and economically most efficient and highly developed solutions.

#### Life cycle

The stages of a product or service, including the procurement and transport of raw materials and the final processing of wastes that arise, recycling or events connected with winding up the service.

#### **Energy-efficiency**

Energy-efficiency means that the product is manufactured with the smallest possible energy consumption. Energy-efficiency is also referred to when speaking about products: products that consume a low amount of energy are energy-efficient.

#### **Ferrochrome**

An important alloying element in stainless steel: it contains chromium, iron, carbon and silicon.

#### Granule

A granular (under 5 mm in diameter), vitreous product that is made from slag, for example, by means of rapid water cooling. Granules are used, say, as a material in earthwork constructing.

#### **Fugitive emissions**

Emissions, effluents or discharges into the soil resulting from a non-intended discharge point.

#### **Recycled raw material**

The reuse of products that have been removed from a process (e.g. metal, paper and glass) as a raw material or principal material.

#### Slag

A by-product arising when metals are melted. The mass consists of flux and impurities. Being lighter, slag rises to the surface of the molten metal, forming a layer of slag that is then removed. Slag serves a number of purposes such as removing impurities, protecting steel from oxidization, and it can be turned into products that find reclaimed uses in various applications.

#### Slag former

A substance that forms slag, for example, calcium oxide, quartz or magnesium oxide.

#### Hot rolling mill, cold rolling mill

A plant where steel slabs go into manufacturing steel products by shaping them with heavy rollers. In the shaping processes, the slab is given the desired dimensions and form.

#### Neutralization

A measure by means of which a neutral solution is produced from acidic and alkaline solutions. Neutralization enables a material going to a landfill or into the sewage system to be rendered safe for the environment.

#### **Specific emission**

Emissions per ton of molten metal.

#### **Pickling process**

A method whereby an oxide layer or other surface material (such as rust) is removed from the surface of the metal by immersing it in a solution of appropriate chemicals (e.g. dilute acid) that affect the surface layer but leave the metal itself virtually unchanged.

#### **Regeneration plant**

At a regeneration plant, spent pickling acids, for example, are reclaimed so that they can be recycled back into the process.

#### Ore dressing, concentrate, tailings

The valueless minerals contained in mined rock are separated from the valuable minerals in an ore dressing process. The separation is performed on finely ground rock, for example, by means of a foaming process with chemicals or by gravitation. The fraction containing valuable minerals is called the concentrate, and it goes on to further processing. The valueless minerals fraction is called tailings, which are stored in a tailings basin in the mining area or used as fill in the mine.

#### **Certified environmental system**

A certified environmental system is verified by an external body to show that the site has undertaken a commitment to developing and managing environmental matters and achieving related targets. It enables the organization to reach the level of environmental protection which it has set for itself, including control and monitoring. For example, the

ISO 14001 standard defines the requirements of an environmental system.

#### **By-products**

A product arising in conjunction with the process of manufacturing the main product. For example, in the manufacture of stainless steel (the main product), nowadays the by-product can be used to manufacture material for uses such as soil conditioning and road building (slag granules). In this way, the volume of waste that arises can be reduced and, in the best case, there is no waste at all.

#### Seepage

Water or wastewater that leaches into the environment (mainly into a watercourse) or the groundwater from a basin, landfill or piling area through dams or the ground.

#### Steel slab

A general term (cf. billet, bloom) for a piece of steel that is manufactured by casting, rolling, forging or in some other manner and goes on to further processing.

#### Smelting plant (melt shop)

In a smelting plant (melt shop) the dressed ore is melted down with additives to make hot metal and slag.

#### **Environmental efficiency**

Environmental efficiency refers to addressing environmental considerations (such as air protection, water protection, energy consumption). The principle is to obtain "more from less". This can thus involve factors such as more efficient use of resources, maximizing the use of renewable natural resources, minimizing energy consumption and increasing the recyclability of products.

#### **Environmental impact**

An environmental change caused by an organization, products, services or some other human activity. The change can be either detrimental or beneficial.

A more comprehensive glossary is available on our website at www.outokumpu.com.

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Your opinion matters in developing reporting systems.

Please find our feedback form on our website.

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Photos: Outokumpu, Jaakko Vuorenmaa, Arnold Klaxman (pages 25, 35 and 36) and Getty Images.



Outokumpu is an international stainless steel company. Our vision is to be the undisputed number one in stainless, with success based on operational excellence. Customers in a wide range of industries use our stainless steel and services worldwide. We are dedicated to helping our customers gain competitive advantage.

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