



## Company Profile

Aurubis is one of the world's leading integrated copper groups and the biggest copper recycler in the world, with production facilities in Europe and the US, as well as an extensive service and sales network in Europe, Asia and North America. It has larger production sites in Germany, Belgium and Bulgaria. On September 30, 2015, the Group employed 6,321 people (previous year: 6,359), of whom 56% worked in the German plants and 44% worked abroad.

Aurubis shares are part of the Prime Standard segment of the Deutsche Börse stock exchange and are also listed in the MDAX and the Global Challenges Index (GCX).

| in accordance with IFRS   |                           | 2014/15 | 2013/14 |
|---|---------------------------|---------|---------|
| - In accordance with it K3  |                           | 2014/15 | 2013/14 |
| Economy   |                           |         |         |
| Revenues  | € million                 | 10,995  | 11,241  |
| EBT   | € million                 | 170     | 58      |
| Operating EBT <sup>1)</sup>   |                           | 343     | 137     |
| Consolidated net income   | € million                 | 134     | 44      |
| Operating consolidated net income   | € million                 | 257     | 99      |
| Net cash flow   | € million                 | 365     | 401     |
| Operating ROCE 1)   | in %                      | 18.7    | 8.5     |
| Capital expenditure   | € million                 | 112     | 128     |
| of which for environmental protection 2)                                      | € million                 | 34.4    | 51.6    |
| R&D expenses  | € million                 | 11      | 10      |
|   |                           |         |         |
| Environment   |                           |         |         |
| Total energy usage  | in TWh                    | 3.793   | 3.651   |
| CO <sub>2</sub> emissions (direct and indirect within the Group)              | million t                 | 1.9     | 1.9     |
| Specific energy consumption 2)  | in MWh/t copper<br>output | 1.9     | 1.9     |
| Specific CO <sub>2</sub> emissions from fuels <sup>2)</sup>                   | t/t copper output         | 0.20    | 0.20    |
| Specific SO <sub>2</sub> emissions in primary copper production <sup>2)</sup> | kg/t copper output        | 4.7     | 5.6     |
| Specific dust emissions 2)  | g/t copper output         | 55      | 52      |
| Metal emissions in bodies of water <sup>2)</sup>                              | g/t copper output         | 1.3     | 1.8     |
| _   |                           |         |         |
| People  |                           |         |         |
| Total employees   | Number                    | 6,321   | 6,359   |
| Women   | Number                    | 754     | 749     |
| Men   | Number                    | 5,567   | 5,610   |
| Total apprentices in Germany  | Number                    | 274     | 269     |
| Apprenticeship ratio in Germany   | in %                      | 7.8     | 7.7     |
| Average period of employment  | in years                  | 13      | 16      |
| Labor turnover rate   | in %                      | 5.9     | 7.34    |
| Injury rate LTIFR   | LTIFR <sup>3)</sup>       | 6.3     | 7.8     |

Orporate control parameters.

<sup>&</sup>lt;sup>2)</sup> In copper production in the Aurubis Group, calculated by calendar year.

<sup>3)</sup> LTIFR – injuries causing an employee to miss at least one full shift.

<sup>4)</sup> Mainly due to the closure of the Finspång facility.

### **Business Model**

In our business model, the divisions of copper production and copper processing are very closely linked, resulting in high potential for efficiency and flexibility when managing the procurement of raw materials, production and sales, as well as a strong market focus.

A broad raw material base enables us to make use of market opportunities and to hedge against supply risks. On the one hand, we use copper concentrates derived from ore from all over the world. On the other hand, Aurubis processes large amounts of intermediates, copper scrap and other metal-bearing recycling materials. The product range primarily covers standard and specialist products made from copper and copper alloys.

Our core product is the copper cathode, the product format used for copper trading on the international metal exchanges. Aurubis produces around 1.1 million t of these every year, making

it one of the top producers in the world. The copper cathodes are used for manufacturing other copper products but can also be sold directly. With regard to further processing, Aurubis has manufacturing capacities for continuous cast copper wire rod, shapes, rolled products, strip, specialty wire and profiles made from copper and copper alloys.

Other elements found in copper raw materials are processed into additional products, in particular precious metals, sulfuric acid and iron silicate.

Aurubis' customers include companies in the copper semis industry, the electrical and electronics sector and the chemical industry, as well as suppliers in renewable energies, construction and the automotive business. The Aurubis Group is managed centrally from the corporate and administrative headquarters in Hamburg.

### **Group Structure**

The organizational structure of the Aurubis Group is based on its business model. In fiscal year 2014/15, its activities, which were previously grouped into three operative business units (BUs) were grouped into two: Primary Copper and Copper Products.

BU Primary Copper largely comprises the production facilities for processing copper concentrates and the production of copper cathodes in Hamburg and Pirdop. In addition, there is also a new centralized precious metals area for the Group in Hamburg.

BU Copper Products includes the Lünen recycling facility and the Olen production facility. This meant the organization of the recycling business took a step towards a stronger focus on customer business. In addition, the company also manufactures and sells products from the copper product families of continuous cast copper wire rod, shapes, rolled products and specialty products.

In organizational terms, the product business is divided into the business lines (BLs) Rod and Shapes, Flat Rolled Products, Bars and Profiles and Marketing Cathodes. The primary production facilities are located in Hamburg, Stolberg and Emmerich (Germany), Olen (Belgium), Zutphen (Netherlands), Pori (Finland), Avellino (Italy) and Buffalo (USA). Service centers in the UK, Slovakia and Italy, as well as a global sales network, round off our service profile.

Group-wide functions support the operative business units. The newly established Supply Chain Management team is tasked with group-wide raw material management and the sale of sulfuric acid and other specialty products.



### Sustainability as an Integral Aspect of Our Corporate Strategy

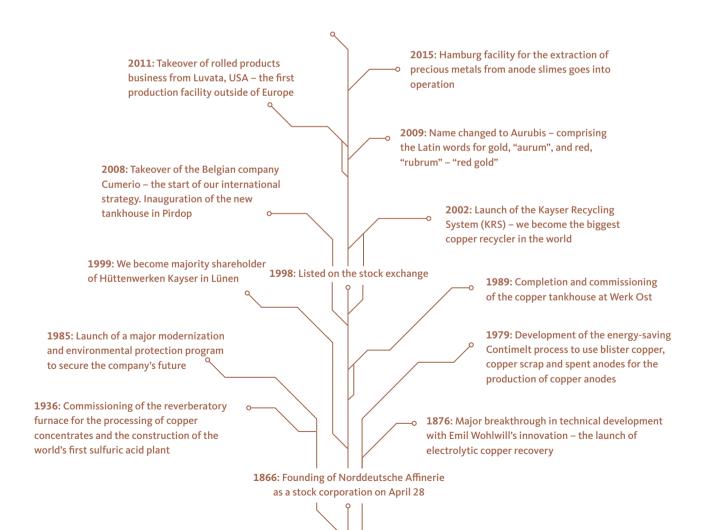
Our strategy predominantly focuses on generating the highest value from various, increasingly complex raw materials by drawing on the Group's expertise in smelting, refining, metal recovery, recycling and processing. We want to continue to expand on our market leadership as an integrated copper manufacturer and create added value for our suppliers and customers.

Our strategy is based on the metal copper, which is key to our success, and on expanding the recovery of additional metals by extending the raw material base and broadening production expertise. We want to better understand the requirements of our customers and suppliers and to develop new solutions. We will expand the activities in the value chain and work together more closely on this, both internally and externally.

In all our activities, sustainability plays a crucial role. This is why we treat the environment and its limited natural resources with care. We also adopt a responsible approach to our employees, suppliers, customers and neighbors. The same goes for the areas surrounding our plants in order to keep any potential negative effects of our business on the environment, staff and society as minimal as possible.

Our Sustainability Strategy establishes the major areas of activity for the coming years. Based on this, we have developed targets and action plans for individual areas of activity. We make our sustainable development both quantifiable and evaluable. Aurubis' strategy has been proven over time and we will continue to pursue it.

### Aurubis AG - Creating the Future for 150 Years



### 149.0

Copper is the constant in our business. It doesn't lose quality and can be reused nearly an infinite number of times. All the other aspects of our business, however, are always changing:

We receive raw materials and recycling materials in varying qualities. Production technologies are constantly updated. Prices on the copper exchange fluctuate. Technical progress opens up new options for using copper all the time. We don't just react to these shifts; we address them actively with ongoing development and, from time to time, with a fundamental upgrade.

In year 149 of the company's history, we're working on Version 149.0. It corresponds to the demands of changing markets and redefines our relationships with suppliers and customers. It offers a comprehensive network in the expanded Group and targets improved operational and production processes with perfectly optimized technologies and organizational structures. It reinforces the principle of sustainability across all areas of business within the Group. Furthermore, it focuses on personal development and the changing profiles of employment, as well as the way that staff view their roles.

The development of the upgrade 149.0 has made significant progress but has so far only been tested in part. This report provides more information about what Aurubis is striving for with Version 149.0 and which features are already in use.

### **Table of Contents**

- 2 Foreword
- 6 Magazine
  - 6 Economy
  - 12 Environment
  - 18 People

- 25 Performance Report
  - 26 Sustainability Management
  - 38 Product Responsibility
  - 46 Industrial Environmental Protection
  - 58 Human Resources
  - 68 Social Commitment
- 71 About This Report
- 73 GRI G4 Content Index
- 78 List of Graphics
- 78 List of Tables
- U3 Imprint



Aurubis · Sustainability Report 2015

### New Reader,

Aurubis is celebrating a milestone anniversary in 2016. Founded in 1866, the Group is a major player in the global copper industry with its 150-year history. Based on its Hamburg roots, Aurubis has a solid, international foundation across broad swathes of the copper value chain and a continual openness to new opportunities and the changes they entail thanks to its integrated business model. We are part of the companies we work with: Aurubis is an appealing employer and makes a significant contribution towards tailoring the copper supply to demand in Europe and beyond. It's no secret: The recovery and use of non-ferrous metals are the principal requirement for technological advancement and thus higher standards of living – around the world.

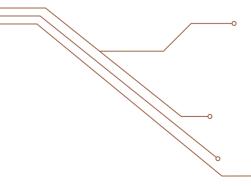
It is important for us to conduct our business with responsibility – in the economic setting, when dealing with the environment and resources, and with respect to our employees. All of this makes us part of the social fabric. Our company has grown significantly over the past decade. We've expanded and have become bigger and more global – resulting in a continued increase in our sustainable business practices. We are happy to face this challenge, and a sustainable approach and practices are integral elements of our corporate strategy. At the same time, we are aware that the various aspects of sustainability can sometimes have a direct impact on our employees and their work, as they can on the relationship with our business partners, the environment and resources.

We know that cutting-edge technologies are the fundamental requirement for an effective, sustainable approach to environmental protection. By continually investing in our facilities – and we have invested around € 530 million since 2000 in environmental protection for our copper production business – we have assumed a leading position worldwide when it comes to the environment. And we're proud of it.

As an element of innovative technologies, our copper makes a significant contribution towards the energy revolution and towards improving people's carbon footprint in their everyday lives. Without copper, the energy revolution would not be possible. And that's not all: We also take a leading position internationally when it comes to energy efficiency, too. We're not ready to rest on our laurels when it comes to energy efficiency, the efficient use of resources and reducing CO<sub>2</sub> emissions. Doing this, however, will require further regulatory conditions that will guarantee companies engaged in international competition long-term planning and investment security.

For Aurubis, the efficient use of resources is a key topic. We want to make even better use of those things that are available to us. This means, for example, getting even more out of increasingly complex raw materials. Our new Supply Chain Management (SCM) division, which was founded in 2015 by uniting the purchasing departments for primary raw materials, recycling materials and production planning, is making a contribution towards improving the management of the supply chain. The team is tasked with group-wide raw material management and the sale of sulfuric acid, as well as other specialty products such as iron silicate. A fundamental test instrument for sustainable standards within our supply chain is the Business Partner Screening process carried out by our Group, which we use to check the credentials of all of our suppliers.

With our multi-metal recycling, we can ensure that the recovered material cycle for copper and other metals can be closed. It is becoming increasingly important to recycle products after the end of their lifecycle. Valuable raw materials can be used again, resources protected and the environmental impact minimized. Here, too, Aurubis has created a new function: Customer Recycling Solutions combines the sale of our copper products with the procurement of recycling raw materials – turning customers into suppliers. The perfect example of a circular economy.



Our Sustainability Report 2015, like the years before it, is based on the internationally recognized standards of the Global Reporting Initiative (GRI) and also serves as a progress report for the UN Global Compact (UNGC). Aurubis has been part of the Global Compact since the end of 2014 and supports its principles. This report documents the measures and activities we implement in order to live up to our requirements for responsible business practices, and how we are driving sustainability forward in the fields of labor practices, human rights, environmental protection and anti-corruption.

As part of society ourselves, we see our dialogue with society as very important. We want to exchange opinions and gauge the expectations placed on us so that we can better understand the dialogue and be better understood. We engage in particularly intensive discussions at visitor days, shareholder meetings, capital market conferences, with suppliers and at customer meetings, or in dialogue with NGOs, representatives of civil society, associations, policymakers, unions and other multipliers. The new Corporate Communications and External Affairs Department, formed in 2015, is responsible for enabling us to live up to our corporate sustainability credentials and communicating them appropriately. In fall 2015, as part of a materiality analysis, we asked 29 stakeholders whose opinions were very important to us whether the sustainability topics identified by Aurubis were really relevant to us and to society.

We would also like to invite you to enter into a dialogue with us, to find out more online anytime at www.aurubis.com and to contact us if you have any inquiries or comments.

Sincerely,

Erwin Faust

Dr. Stefan Boel

# **ECONOMY**

Our expertise when it comes to smelting, refining and recycling, and the responsible and trusting cooperation with our business partners and stakeholder groups are the basis for our company's success – and we want to boost this success over the long term. Our process and product innovations, along with our responsible corporate management style, help us to achieve this.

#### Responsibility within the Supply Chain

# ACTING SUSTAINABLY: FROM START TO FINISH

Recently, Aurubis has increased its commitment to adhering to major guidelines for sustainable business from international organizations. This includes the OECD's Due Diligence Guidance. These guidelines outline a responsible, global supply chain management system for the processing of conflict-free raw materials.

The core labor practices of the International Labor Organization from 1998 are also a major focus for Aurubis. They help to guarantee dignified working conditions and safety at work around the world. The standards comprise various conventions dealing with forced labor, equal pay, discrimination in the workplace and child labor, for example.

And Aurubis has been committed to the United Nations' Global Compact since 2014. This calls on companies to do business in line with the ten principles of social and environmental responsibility.

# The ten principles of the Global Compact



#### **Human Rights**

- 1. Businesses should support and respect the protection of internationally proclaimed human rights.
- Businesses should make sure that they are not complicit in human rights abuses.

#### Labor

- 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- 4. Businesses should uphold the elimination of all forms of forced and compulsory labor.
- 5. Businesses should uphold the effective abolition of child labor.
- 6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.

#### Environment

- 7. Businesses should support a precautionary approach to environmental challenges.
- Businesses should undertake initiatives to promote greater environmental responsibility.
- Businesses should encourage the development and diffusion of environmentally friendly technologies.

#### Anti-Corruption

 Businesses should work against corruption in all its forms, including extortion and bribery.

One example of the Group's Global Compact commitment: Aurubis Bulgaria also belongs to the local Bulgarian network (Global Compact Network Bulgaria) and is thus committed to working in compliance with the ten principles.



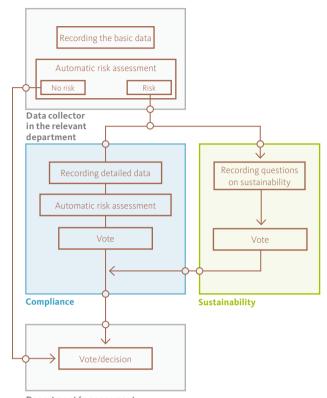
# Business Partner Screening: Another Test Instrument for Sustainable Standards

The careful selection of its suppliers has always been a defining characteristic of Aurubis. This process has been supported throughout the Group since 2015 with the Business Partner Screening method, which analyzes business partners' integrity with regard to social and environmental aspects in an even more structured manner. In practice, this is done with specially configured software. The software evaluates financial, management, legal and sustainability-based risks, among other aspects. It automatically generates a risk profile that indicates if there is a necessity for further research.

#### **Certified Conflict-Free Gold**

We had initial experience with the Business Partner Screening process in 2013 in the field of precious metals. Checking sources of precious metal-bearing and particularly gold-bearing raw materials resulted in the fact that Aurubis now does not use any raw materials containing conflict gold. The early adoption of the screening program was due to the Gold Supply Policy implemented in the same year. This guideline reflects the requirements of the Gold Guidance of the London Bullion Market Association, or LBMA, and is based on the OECD's Due Diligence Guidance with regard to conflict minerals, as well as the standards of the UN Global Compact. It's a path that has really paid off: Aurubis' gold production has been certified as conflict-free according to LBMA standards since December 2013.

### **Business Partner Screening: Risk Assessment Method**



Department/management



Jürgen Schachler, future CEO

### **New Company Management Starting Summer 2016**

On July 1, 2016, Jürgen Schachler will start in his function as Executive Board Chairman. He is aware of the significance of sustainable activities, due in large part to his professional path: He studied economics and began his career in the chemical industry, including at Solvey & Cie, before he switched to the steel group ArcelorMittal in 1993. His career took him to a number of countries, such as the US, Mexico, Thailand, Germany and Canada, where he managed and sustainably aligned different group companies.











# THE NEW SUPPLY CHAIN MANAGEMENT DIVISION

Successful, sustainable business requires two perspectives: an overview of the bigger picture and a focus on the details. Since 2015, the new Supply Chain

2015

SCM was created in 2015 for optimized management.

Management division, or SCM, has been responsible for this at Aurubis. It is the result of uniting the purchasing departments for primary raw materials, recycling materials and production planning. After reducing the number of interfaces, the SCM aims to optimize the supply chain and processing within the Group – from purchasing the copper concentrates and recycling

materials from mines and industry, the sale of precious metals, by-metals and by-products such as sulfuric acid and slag, to production planning for the entire Group.

Most of the hundred employees working in this field are distributed between four locations in three countries: Hamburg, Lünen, Pirdop and Olen. In addition, there are sales staff based in Hanau, Istanbul, Buffalo, Singapore and Shanghai. The individual departments in the new division are managed centrally and report directly to the Chairman of the Executive Board.

In addition to increased transparency, the SCM team can also better manage the supply chain. This applies in particular to costs, revenues and processing times. We do this to the benefit of Aurubis customers so that we can offer them tailored solutions in an increasingly complex market.

# QUESTIONS & ANSWERS



Four Questions for Christophe Koenig, Senior Vice President Supply Chain Management:

# How high is the proportion of contracts with primary raw material suppliers that contain clauses on human rights?

Since 2013, new supplier contracts, which are generally valid for many years, have all included relevant clauses on the topic. A good 75% of our contracts now contain such clauses.

# Are the mines that supply Aurubis with copper concentrate audited for compliance with human rights and environmental standards?

Yes, this is done by our raw material procurement team on the one hand. They are in constant contact with suppliers and conduct regular visits to the mines. On the other hand, we also systematically investigate our suppliers via our Business Partner Screening method.

### Are contracts terminated if infractions are discovered?

We're in a difficult situation here because we would not have any way to apply pressure on the mining companies if infractions occurred. You would think that a company of our size could at least apply financial pressure, i.e. with the threat of no longer using them as a subcontractor. But this is not the case because it is very easy for the mining groups to sell the concentrate to other buyers. The only tool we can use is our power of persuasion – and we do.

### What does transparency mean in the Aurubis supply chain?

For us, transparency means ensuring that the sustainability and transparency obligations are maintained on all sides upon arranging a contract and for the duration of the business relationship. This includes addressing and remedying differing points of view or shortcomings, provided they fall under our scope of influence.

### **Local Responsibility**

### VISITING PERU AND CHILE



The Toromocho mine is located at an altitude of 4,800 m

Aurubis is in constant contact with its sub-contracted mining companies. As part of this, regular mine visits are conducted, such as the one in September 2015, where a team from Aurubis visited

the Toromocho mine in Peru. The Toromocho mine extracts 1 million t of copper concentrate every year. Around 2,500 people work in the mine itself, with others based around the region.



On the other hand, an entire town is to be relocated to make way for the mine. Around 900 families have accepted the offer of moving to the newly established town of Nueva Morococha. However, about 10 % of the original inhabitants have chosen to stay in the old settlement. As with other institutions, the new kindergarten and community center in Nueva Morococha are available for use by the staff from surrounding mining companies. The citizens of the city will be responsible for its independent administration, will be educated in various professions and receive additional training. There are five churches, restaurants, a hotel, a clinic, a police station and agricultural areas. The concept of responsibility and dialogue preferred by Aurubis appears to have worked well, for the most part. Visits such as these help to give Aurubis as objective a viewpoint as possible of the situation in the supplying country and to remedy any issues.



Kirsten Kück, Sustainability Manager

#### Aurubis in the German/Peruvian Dialogue

Because the dialogue with local politicians and associations is helpful, staff from the Group took part in the 2015 German/Peruvian Raw Materials Forum in Arequipa. Representatives from politics, business, research institutes and education discussed various topics, including "Transparency as a Key to the Success of Mining Projects". In this context, transparency primarily means demanding clarity about the long-term impact of a mining project, focusing on environmental issues such as emissions and water quality, but also social aspects, such as the creation of jobs by the mines, education and training for the staff and the local population. The upshot was the realization that Aurubis' exemplary and proven path based on dialogue with the communities around the mines is just as essential to the Group as its high environmental standards.

### Aurubis in the German/Chilean Dialogue

Additionally, in order to expand the dialogue with major stakeholders of the company, discuss current development and to present Aurubis as a responsible partner for the mining and smelting sector in South America, employees from the Group accompanied the delegation under Hannelore Kraft, Minister-President of the State of North Rhine-Westphalia, on her journey as part of the German/Chilean Business Forum.

TOROMOCHO MINE
PERU

SANTIAGO
DE CHILE
CHILE

Aurubis · Sustainability Report 2015

### Valuable Dialogue

# EXCHANGING IDEAS, INSIGHTS AND SHARED GOALS

The public is more aware now than ever before as to whether a company engages in responsible business practices. In order to better understand this angle and explain our own position, Aurubis exchanges ideas with numerous advocacy groups such as customers and suppliers, as well as representatives from the worlds of politics, the capital market and media.

One good example of this is the series of talks with various non-governmental organizations (NGOs) initiated by Aurubis in 2014. The conversation partners, including the member of the Aurubis Executive Board responsible for sustainability, employee representatives and the Sustainability Management Department, all

8

Eight stakeholder groups are of particular relevance for Aurubis: suppliers, customers, employees, society, the media, science, the capital market, and NGOs. (G4-24) learned from one another. On the one hand, the NGOs have plenty of environmental and social expertise, for example, with regard to the situation in emerging economies, or the supply chain management of other industries. On the other hand, Aurubis representatives are able to present the company's own Sustainability Strategy, the complex corporate and market structure and

the opportunities for the Group to influence the industry. Both sides benefited greatly from the discussion. One thing that Aurubis took from the discussion was that it needed to further intensify local dialogue near the mines. Other mutual goals were identified, too, such as the procedure for dealing with criminal exports in the scrap sector.



More on the topic of the Performance Report on page 30

Dialogue on the Aurubis Sustainability Day – for a circular economy and against illegal waste transports





"Transparency underpins our aim to successfully manage Aurubis as a company that lives by its sustainability credentials and communicates this stance appropriately. This includes the diverse aspects of our supply chains, our strategy with regard to the environment, resources, the people at the heart of our daily work at Aurubis and our partners. Transparency helps us both in terms of our business and our sustainability targets. Transparent communication makes this possible - for customers, suppliers, investors, the people living near our facilities and, last but not least, for us – the people at Aurubis."

Ulf Bauer, Vice President Corporate Communications and External Affairs



Participation in the Carbon Disclosure Project

# 2015 BEST NEWCOMER IN GERMANY: AURUBIS

Since 2000, product-based CO<sub>2</sub> emissions have been reduced

by 36%

Aurubis took part in the survey by the investor initiative known as the Carbon Disclosure Project in 2015. The CDP, which asks companies about risks and opportunities with regard to the environment as well as the potential for reducing CO<sub>2</sub> emissions, is of increasing importance to customers, suppliers and investors.

CDP named Aurubis the Best Newcomer in Germany in 2015. This excellent result was largely due to the Aurubis Sustainability Strategy and the transparent presentation of how the company deals with the opportunities and risks presented by climate change. The award comprises the copper products that contribute to boosting efficiency of applications, as well as the effective production processes, the energy management strategy and investments in boosting energy and CO<sub>2</sub> efficiency.

Despite the elation at the award, the Group is aware that further significant progress in terms of CO<sub>2</sub> reductions will become harder and harder to achieve. The reason for this is simple: With the increasing number of energy efficiency measures implemented, the number of opportunities for making further optimizations will decrease. Even today, Aurubis is constrained by the limits resulting from its processes in terms of boosting efficiency and there is already a conflict between the two aims of increasing energy efficiency and making progress in protecting resources. A growing proportion of electricity consumption is now accounted for by measures to protect the environment. This goes for the 30% energy reduction in the production and primary processing of copper, for example. At the same time, the amount of complex recycling raw materials with comparatively low copper content, whose use requires a higher specific energy consumption than standard scrap metal, is increasing. And in order to make better use of renewable energies, a volatile production process is desirable, but this tends to reduce energy efficiency. In summary, it can be said that much has been achieved and yet much still remains to be done when it comes to reducing CO, emissions.



Aurubis was named Best Newcomer 2015.



"This award is proof of our innovative prowess and also gives us the impetus to keep up the pace when it comes to the topics of minimizing CO<sub>2</sub> emissions, boosting energy efficiency and the efficient use of resources. However, to do this, the relevant regulatory framework must be created in the future to guarantee companies engaged in international competition long-term planning and investment security."

Ulf Gehrckens, Senior Vice President Corporate Energy and Climate Affairs

# Helping the Climate for 13 Years: the Carbon Disclosure Project

Over 800 major investors are involved in the CDP around the world, some of whom are also key players for Aurubis. Together, these investors manage assets amounting to around US\$ 95 trillion.

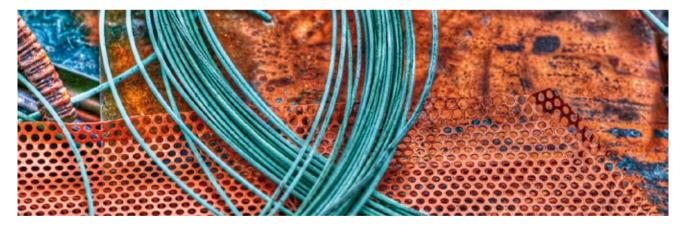
The CDP was founded in London in 2002 and assesses companies and organizations listed on stock exchanges around the world as a non-profit organization. Data on CO<sub>2</sub> emissions, climate risks and reduction targets and strategies are collected by way of a very complex survey. In recent years, the CDP has expanded its activities and now also collects data on water usage, the protection of forests and woodlands and on the management of environmental risks in the supply chain.

# ENVIRONMENT

The efficient use of resources, recycling, energy, water and air – these are the environmental topics of particular relevance to Aurubis. And even if our environmental production standards are already very high, the Group wants to keep improving on this with higher efficiency and lower emissions.

### Closing the Loop

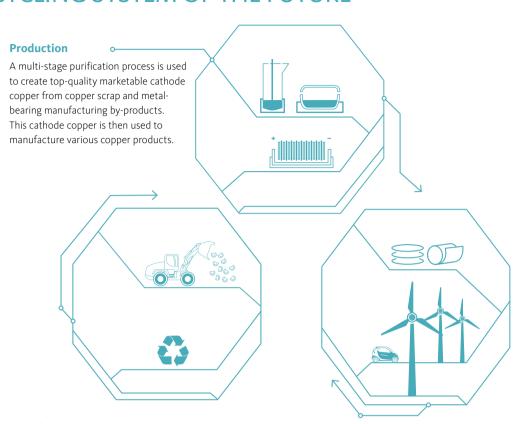
# A ONE-STOP SHOP FOR CLOSED-LOOP RECYCLING



There are many ways of protecting valuable resources. As an expert in multi-metal recycling, Aurubis closes the recovered material cycle for copper and other metals. In other words, you could also say that Aurubis makes its customers into suppliers with its "closing the loop" approach. The goal is for at least five more customers to introduce this closed cycle system for recovered materials by 2018. Partnerships of this kind are already in existence – for example, with Grillo Werke AG and Deutsche Telekom AG. The focus of interest includes

production waste and by-products resulting from production along the entire copper value chain. This may include materials with a very high copper content, such as Millberry scrap, which can be used again immediately in copper production. However, materials from high-copper and precious metal-bearing stamping waste to alloyed scrap, slag from foundries and other industrial waste can all also be reintegrated into the recovered material cycle.

### **CLOSING THE LOOP - THE** RECYCLING SYSTEM OF THE FUTURE



### Recycling

Metals are accrued during processing and at the end of a product life that can all be reintegrated into the recovered material cycle as a result of their excellent recyclability and the processing technology available. This is where Aurubis offers customized solutions ...

### **Application**

... from cathodes and semifinished products to the finished product. Copper is used in countless ways especially when it comes to conducting electricity and heat. It is also characterized by its corrosion resistance and excellent ability to form alloys.

From electronic scrap to industrial by-products, environmentally friendly and energy-saving recycling from Aurubis makes a contribution towards ensuring sustainability.



"We invest in innovative procedures and state-of-the-art facilities for our multi-metal recycling. In this way, we make an important contribution to conserving natural resources beyond our core expertise in copper recycling."

Dr. Thomas Bünger, Chief Representative for Primary Copper













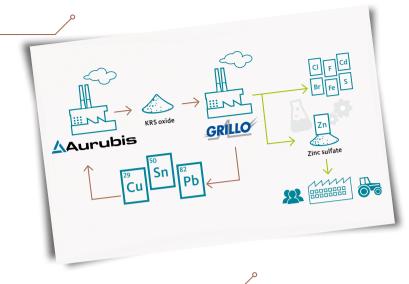






# A MUTUAL GIVE AND TAKE

The Aurubis recycling center in Lünen is home to the Kayser Recycling System (KRS), which produces converter copper as well as a complex, zinc-bearing residue. Our long-term partner for this so-called KRS oxide is Grillo Werke AG, which guarantees environmentally sound recycling and produces zinc sulfate from the KRS oxide. The zinc sulfate is used in the fiber, feed and fertilizer industries. Other elements are separated at Grillo and disposed of appropriately. Aurubis takes back the resulting residue, which contains copper, tin and lead, thus closing the recovered material cycle.



Aurubis and Grillo's partnership shares state-of-the-art technology for a traceable, seamless recovered material cycle.

# OLD CABLES AS A RESOURCE: OUR PARTNERSHIP WITH DEUTSCHE TELEKOM

In addition to the raw materials recovered in production, the close cooperation with our customers enables the logical recycling of products that have served their purpose. The long partnership between Deutsche Telekom AG and Aurubis' subsidiary CABLO Metall-Recycling und Handel GmbH is testament to this. Aurubis receives old cables with a copper content of around 50% as waste from one of Deutsche Telekom's partners, TEQPORT Services GmbH, and processes them using green, expert methods. Following the preparation - i.e. the separation of the copper core from the plastic parts - the components are then processed into highpurity copper granules and marketable plastics. The copper granules are used by Aurubis to make copper products such as continuous cast copper wire rod, which is used to make new cables, for example, thus closing the copper material cycle. The plastics are processed using injection molding to make



Copper granules recovered from cable waste by Aurubis' subsidiary Cablo

products with a high finish quality that are very dimensionally stable, such as bases for road traffic signs.

Both Aurubis itself and Deutsche Telekom have very high standards of cable recycling. In 2014 alone, over 8,000 t of copper cable were removed from the ground in Germany and approximately 4,400 t of copper and 750 t of lead were recovered from it. To ensure green disposal, only certified disposal experts such as Aurubis are commissioned with dismantling and recycling the cable. Compliance with high environmental standards is audited throughout the entire process.

"It's important to us to make the environmental performance of Aurubis and its products measurable in order to discover potential for improvements and to highlight our environmentally friendly copper production process. That's why we are involved in the environmental footprint projects. We are actively shaping the process and contributing our expertise to the development and implementation – all to the benefit of the environment."

Dr. Karin Hinrichs-Petersen, Head of Group Environmental Protection

### **Environmental Footprint for Products and Organizations**

# METHODICALLY MEASURING ENVIRONMENTAL FOOTPRINTS

What characterizes a product or company that is referred to as environmentally friendly? Lifecycle analyses and ecological assessments deal with this very question. To answer it, there is a whole range of methods and approaches available, and a broad variety of environmental certifications to testify to the results. With the development of the environmental footprint, the EU Commission wants to create a consistent method for calculating the environmental performance of products and organizations throughout Europe, assess them and facilitate comparisons. The method was presented in 2013 and can be divided into two areas requiring different approaches: the environmental footprint for products (Product Environmental Footprint, PEF) and the environmental footprint for organizations (Organisational Environmental Footprint, OEF). In order to make the results of the analyses comparable, products are divided into categories and organizations into industries.

Aurubis is active in both areas. Aurubis took part in the OEF pilot phase with the "Copper Production" project, which is coordinated by the research center of the EU Commission (Joint Research Center, JRC). For the PEF pilot phase, Aurubis worked together with the overarching European organization Eurometaux, the European Copper Institute and other companies from the non-ferrous metals and steel industries on the project entitled "Sheet Metal for Various Applications". The aim now is to test and develop the method in order to determine the environmental footprint. The testing and development phase will continue until the end of 2016 and also comprises various ways of communicating the results to stakeholders. This aims to highlight how information can be communicated in a clear and understandable way for the user.



### Improving Water Quality

# PIRDOP PUTS WATER TREATMENT FACILITY INTO OPERATION

The new water treatment plant, which went into operation in November 2014, will further minimize emissions into the water at our Bulgarian facility in Pirdop. With a capacity of 250 m³/h and several catch basins, rainwater and runoff water from the 4 km² facility will be treated and the water quality thus further improved.

# Waste of Electrical and Electronic Equipment Directive (WEEE Directive)

# A PIONEER IN THE MATERIAL CYCLE

The EU's WEEE Directive for Electrical and Electronic Waste aims to counter the increasing amounts of electronic waste in a responsible way. The processes involved are varied – from measures to prevent the illegal export of electronic waste and keeping raw materials in the material cycle, to developing treatment standards for copper and precious metal-bearing secondary raw materials, and research projects looking at metal recovery.

Under the auspices of the European Electronics Recyclers Association and Eurometaux, therefore, there has arisen a voluntary standard for the treatment or processing of precious metal-bearing WEEE components such as printed circuit boards. This WEEE End Processor Standard aims to ensure global competition for the recycling of electronic waste using state-of-the art technology.

Aurubis and three other companies signed up to the standard in September 2014. This means that the Group has agreed to implement all of the requirements at its facilities processing electronic waste and to have this process audited by an independent auditor.

In its Sustainability Strategy, Aurubis also gave itself the aim of becoming audited and certified according to the WEEE End Processor Standard by 2016 – but had already achieved this target in 2015. This means that Aurubis is making a major contribution towards the circular economy

and towards establishing internationally approved recycling and disposal processes.





**» A Look to the Future:** The EU has commissioned CENELEC (European Committee for Electrotechnical Standardization) with translating the EERA standard into an EU norm from the ISO 50625 series. This means we can expect that the entire processing chain – from electrical and electronic waste to the collection, initial treatment, preparation, and final processing – will have to fulfill an EU-wide quality standard. Aurubis Lünen has already proven this processing quality by acquiring the certification.

### New ElektroG German Electronic Waste Directive

# ELECTRONIC DEVICES MUST BE DISPOSED OF IN AN ENVIRONMENTALLY FRIENDLY WAY – FOR EXAMPLE, BY AURUBIS

The European WEEE Directive has been picked up by the German government, which has now adapted the German ElektroG Electronic Waste Directive to reflect it. As a specialist in multi-metal recycling, Aurubis is well prepared to take on the responsible processing of electronic waste.

The new law, which entered into force on October 24, 2015, aims to reduce the amount of electronic products ending up in household waste. In addition to the manufacturers, the import and export business, as well as retailers of electrical and electronic products, are also responsible for the entire lifecycle of electronic products. The consumers are also obliged to dispose of their old electrical and electronic goods separately from the rest of the household waste. Returning such items has been made easier: The devices can either be handed in at local collection points for free or consumers can make use of the manufacturer's or retailer's return system for electrical and electronic products. Retailers can then have the old devices recycled via recycling specialists such as Aurubis, the manufacturer or public recycling companies – a major contribution towards improving the circular economy.

#### **Energy Efficiency Award**

# SETTING AN EXAMPLE: AWARD FOR THE LÜNEN FACILITY





The efficient use of energy is an environmental and economic imperative for Aurubis. One of the innovative projects for boosting efficiency at the Lünen facility is its highly efficient, flexible electricity generation system. The basis for this is the waste heat resulting from the smelting processes at the recycling plant,

which is used to create steam. To be able to make best use of the steam, a two-stage condensing turbine system was installed. The plant, which was designed specifically to meet Aurubis' requirements, and is characterized by its highly innovative design, is in a position to be able to track the irregular waste heat/steam profile from production flexibly and fully automatically as a result of the intelligent measurement and control systems. In doing so, the waste heat

14%

of Aurubis' electricity requirements are generated from waste heat at the company's Lünen plant.

from production is converted into electricity, while the residual heat is used for other processes, making the most efficient use of the energy possible. The facility generates around 23 million kWh of electricity every year, which corresponds to about 14% of the energy requirements of the Lünen facility, and the average power consumption of about 6,500 three-person households. In addition, this equals a  $\rm CO_2$  reduction of about 14,000 t every year.

The Energy Efficiency Initiative of the German Energy Agency (dena) classed the project as exemplary and awarded it with the Best Practice in Energy Efficiency label in 2015. Aurubis was also nominated for the international 2015 Energy Efficiency Award for the project, putting Aurubis in the top 15 of about 100 applicants.

# THE NORTHERN GERMAN ENERGY REVOLUTION

The increasing and, above all, fluctuating amounts of energy generated from renewable sources as a result of the German energy revolution is also forcing industry to accept a more flexible approach to purchasing and generating energy. In order to identify the relevant limits and potentials involved, Aurubis is taking part in NEW 4.0, a Germany-wide project involving more than 50 partners from the states of Hamburg and Schleswig-Holstein. Through NEW 4.0, the Group is contending for the "Schaufenster Intelligente Energie – Digitale Agenda für die Energiewende" (Showcase for Intelligent Energy – Digital Agenda for the Energy Revolution) funding program offered by the German Federal Ministry for Economic Affairs and Energy. "NEW" stands for "Norddeutsche EnergieWende" (Northern German Energy Revolution) and the "4.0" indicates the threshold to the fourth industrial revolution, i.e. the

digitalization of industry, in which the intelligent networking of systems – including with regard to the energy revolution – is playing an increasingly decisive role. NEW 4.0 wants to act as a showcase for northern Germany's ability to supply 4.5 million citizens with 100 % safe and reliable energy from purely renewable sources by 2035.





# **PEOPLE**

The safety and health of our employees takes top priority for us – and always has.

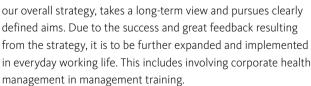
As such, we carry out various programs at all of our facilities in order to minimize the risk of accidents and to support the health of our staff.

We get young people enthusiastic about technical jobs and our industry, thus securing the workforce of tomorrow. This includes bearing responsibility for the people in the local areas around our facilities. And we also support social initiatives that provide education or protect the environment.

### Corporate Health Management

# STILL NEW AND YET ABSOLUTELY ESSENTIAL

The corporate health management strategy was introduced in 2013 and is now a fixed aspect of working life that the Hamburg and Lünen sites cannot imagine life without. Two members of staff take care of the planning and implementation of tailored projects and draw on the expertise of internal and external specialists. The corporate health management strategy is anchored in



# FOR GOOD HEALTH

The Aurubis corporate health management strategy is constantly being developed. Currently, it focuses on three areas of action above all else:

- **1.** Improving each individual's awareness of his or her health: This includes implementing measures for a healthy back and also providing help.
- Reconciling work with a home life: We are working on several agreements to make it easier to reconcile work with having a home life. This includes flextime and working from home.
- 3. Age-appropriate workplaces: Aurubis helped to work on a study that highlighted ways in which employees in very physical jobs can reach retirement age in good health while maintaining good performance. This led to the creation of guidelines for management and staff that will be implemented within the company.

#### Safety Comes First

### "LOOK AFTER YOUR SAFETY!" – A NEW PROGRAM IN BULGARIA

It is a matter of course for the Aurubis Group to protect its staff as effectively as possible against injuries and illness. As a result, we create a working environment at all of our locations that is as safe as possible. Safety simply comes first – and that is something that the team at our Bulgarian facility in Pirdop agrees on. The department for Health and Occupational Safety continued its effort to improve safety in the workplace during the reporting period. The activities have been supplemented since 2015 with the new Pirdop program "Safety for Your Life", which aims to reduce accidents in the workplace and injuries at Aurubis Bulgaria to zero. The program starts by asking the staff at the location to complete a survey in order to gauge the efficacy of existing safety practices and to understand the local safety culture in order to make any appropriate adjustments. This all strengthens people's awareness of the issue and improves safety in the workplace in Pirdop over the long term.



#### Commitment to the Local Area

# THIS INVOLVES CULTURAL, SOCIAL, EDUCATIONAL, SPORTS AND SUSTAINABILITY ISSUES

Aurubis assumes responsibility for its own staff, for the environment, for its customers and, last but not least, for its neighbors at the various sites. This is something the Group does gladly with its support for various local initiatives, only a few of which are presented below.

### CULTURE, FOR EXAMPLE ...

BallinStadt: Aurubis has been supporting the BallinStadt Emigration Museum, which is just a few hundred meters from the Aurubis site in Hamburg, since 2007. The museum is a testament to the nearly five million people from Germany and Europe who left Europe from this port for a new life abroad between 1850 and 1939. The concept behind the exhibition is to be revised and Aurubis will be involved in this over the next few years.





It's a subject that's more current than ever: BallinStadt is a place that tells the stories of people who were ready to leave Europe to seek a fresh start in the New World.

Aurubis' copper dragon is not only a landmark of the Hamburg site but also the striking symbol of the CHINA TIME Hamburg events, which take place in Hamburg every two years, showcasing the city's ties with China. The dragon, which was based on a sculpture from the Summer Palace in Beijing, brought a little Chinese flair to the heart of Hamburg outside the Hamburg City Hall. In 2014, Aurubis not only supplied the dragon on loan but also paid for the overnight transportation of the sculpture, which weighs several tons, into the city center.



The entry to the hospice was designed to include a copper donation from Aurubis.

### SOCIAL INITIATIVES, FOR EXAMPLE ...

Aurubis' Schwermetall shareholding has supported the "Hospizstiftung Region Aachen" (Aachen Region Hospice Foundation) several times over the past few years. The focus was primarily on the construction and operation of the "Hospiz am Iterbach" (Iterbach Hospice). For the artistic design of the entrance to the hospice, Schwermetall provided artists with the necessary metals for free in 2015.

In Bulgaria, the Group worked together with the NGO Bulgarian Charities Aid Foundation to develop a donations platform. In this way, employees of Aurubis Bulgaria can now support social projects

completely voluntarily by opting for a flexible percentage of their salary to be donated to the employee's chosen charity by the HR Department. Until now, employees have supported children from the "Home for Medical and Social Care" in Zlatitsa. In the future, other projects will be offered, too.

### EDUCATION, FOR EXAMPLE ...

To celebrate the 150th anniversary of Aurubis' founding in 2016, something special was planned during the company's 149th year: The Group will support the "Sport ohne Grenzen" (Sports Without Borders) association's Learn4Life project with Aurubis as the main sponsor. As part of their physical education during the fifth and sixth grades, children are taught basic values such as respect and team spirit, as well as good communication and how to deal with conflict as part of a special sports education program. The project has already been successfully implemented at local schools in Wilhelmsburg and is now set to be rolled out to other schools in Hamburg.

of the money allocated to social commitment was and Social Issues" in fiscal year 2014/15.

This year, Aurubis supported the very first "Festival Ambacht21" in Zutphen, the Netherlands, which aims to encourage young people to used for the area "Education take an interest in modern trades and technology. With plenty of enthusiasm, children tried their hand at chemical tests, programming

Lego robots, woodwork, carrying out technical experiments, drawing cartoons, but also setting up a drainage channel and building a wall.

On the other side of the Atlantic, at Aurubis Buffalo, the Group supported the "Teacher's Desk" project. The donated funds were used by a Buffalo public school to buy pencils, paper, notebooks and school bags for needy schoolchildren.





### SPORTS, FOR EXAMPLE ...

In 2015, Aurubis Bulgaria was the main sponsor for the charity bike ride "SOS European Bike Tour", which was organized by SOS Children's Villages in Bulgaria. The tour was also special because the idea for it was the brainchild of Daniel Milenov (fifth from left in the photo) and Lyupcho Krastev, who themselves grew up in SOS Children's Villages. Their aim is to boost awareness of neglected or orphaned children and the SOS Children's Villages – partly due to their own experiences. As part of the SOS European Bike Tour, the two young

men visited a total of eight countries, cycled around 100 kilometers a day and met lots of children at each SOS Children's Village along their route. Lots of Aurubis staff and their families took part at the start of the tour at the end of May, accompanying the group to the Serbian border.



### **NEW ENERGIES, FOR EXAMPLE...**

An energetic approach to new energy: After the huge earthquake in Nepal in May 2015, the organization atmosfair set up the "Neue Energie für Nepal" (New Energy for Nepal) campaign in order to provide practical help on the ground. The campaign rests on three pillars: Firstly, emergency aid

with the distribution of solar-powered systems for homes; secondly, with the repair of damaged small-scale biogas systems; and thirdly, by re-establishing the electricity networks of six severely damaged villages. Aurubis provides the project with financial support in repairing the energy facilities.



### Sustainability in Training

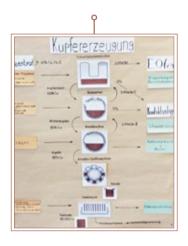
# SUSTAINABLE, RIGHT FROM THE START

"The Environmentally Friendly Circular Economy and the Avoidance of Illegal Waste Transports" – these were two major topics on the agenda at the second Sustainability Day held by Aurubis in Hamburg in November 2015. The event was attended by guests from the worlds of politics, business and associations, who were able to see from the exhibition presented by the Aurubis apprentices the journey that copper makes through the Group – from the concentrate to the finished product, and from the finished product to the new product once more. Prior to the event, over the period of a week, the trainees were divided into four teams and worked on the topics of transportation, copper production, copper processing and final finishing, as well as sustainability. They engaged in intensive dialogue with various experts from the Aurubis Environment, Energy & Climate Affairs, Logistics, Supply Chain Management and Sustainability departments. Everyone was very happy with the results: Both the apprentices and the departments found the discussions very beneficial and want to establish a Sustainability Week by the apprentices as a fixed part of the training program.



"I just started my apprenticeship in September and learned so much about the company and its context in this one week!"

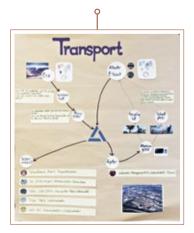
Vedat Akpinar, Process Mechanic in the metallurgical and semifinished goods industry, 1st year apprentice













Each profession was able to contribute its point of view and expertise in order to complete the picture of the journey of copper through our company.

### FIRST ENERGY DAY AT THE HAMBURG PLANT



Anyone can help to protect the environment. There were plenty of ideas at Aurubis' Energy Day.

Over 500 members of staff used this opportunity to find out about the issues at hand during the first Energy Day at the Hamburg site in July 2014 in the Alte Schlosserei event hall. In addition to major projects to boost energy efficiency, such as the use of waste heat, energy-saving behavior and employee commitment to the topic were also central themes.

Opportunities for saving energy in the workplace were also highlighted using models constructed by the Hamburg apprentices. For example, how badly insulated or uninsulated pipes can lead to high energy losses: One four-meter-long, uninsulated steam pipeline loses enough energy to power a three-person household for one year. There was also information about saving energy at home, which was supplemented by extra information from the Energy Advisor from the Hamburg Chamber of Trade and Commerce, for example.

### **QUESTIONS AND ANSWERS**



Five Questions for Henning Michaelsen, Chief Compliance Officer at Aurubis

# WHEN INFRINGEMENTS BECOME CRIMINAL OFFENSES

As the Chief Compliance Officer at Aurubis, Henning Michaelsen is responsible for ensuring that all the key laws, guidelines and the Code of Conduct are anchored in the corporate culture at Aurubis, and that all employees are aware of them and comply with them.

Mr. Michaelsen, compliance means sticking to the rules. When is leniency appropriate for an infringement, and when does it become a criminal offense?

Each member of staff should be aware of and comply with the rules in his or her area of responsibility. Of course, anyone can make a mistake from time to time. When it comes to infringements on rules that were inadvertent, or do not represent an administrative or criminal offense, a solution can always be found. However, it becomes more problematic if a criminal context becomes clear, such as in the case of theft, the acceptance or payment of bribes, or the embezzlement of company funds.

### What consequences do such criminal offenses have?

In the case of criminal behavior, immediate dismissal from the company and reporting of the crime to the relevant authorities, which may result in a fine or a prison sentence.

Aurubis also asserts claims for damages – this is a consistent approach by the company.

#### Why does Aurubis need a whistleblower hotline?

Our compliance portal, the whistleblower hotline, aims to enable all staff and business partners to inform external, independent lawyers of any legal infractions in confidence or anonymously. Reports can then be processed internally. Without an internal notification system, the only other option is to make the case public.



Employees should provide notification of legal infractions. Isn't this a fast-track to an informer culture?

No, because the aim of our whistleblower hotline is to recognize criminal behavior in good time. If there are grounds for suspicion, such notifications may prevent Aurubis from becoming liable for significant amounts in damages. We can only speak of an informer culture if false suspicions are registered as fact and this very rarely happens. Additionally, we also check notifications of suspicions very carefully for plausibility and traceability.

### Have there been infractions of compliance rules at Aurubis?

In every large group of people, there are always a few who do not stick to the rules. On average, a small percentage of any given segment of the population is more susceptible to committing offenses. The same goes for a company. Aurubis has also experienced such compliance issues in the past that have led to financial damages.

### Performance Report

### 26 Sustainability Management

- 26 Responsible corporate governance
- 27 Organization
- 27 Compliance and policies
- 29 Risk and opportunity management
- 29 Human rights
- 30 Stakeholder dialogues
- 31 Dialogue with policymakers
- 31 Dialogue with the capital market
- 32 Dialogue with customers
- 32 Dialogue with NGOs
- 32 Dialogue with employees
- 32 Materiality analysis
- 34 Sustainability Strategy and sustainability targets

### 38 Product Responsibility

- 38 Our approach
- 39 Research, Development and Innovation
- 41 Quality and quality management
- 42 Product safety
- 42 Recycling
- 44 Supply chain

### 46 Industrial Environmental Protection

- 46 Our approach
- 51 Resources and material input
- 51 Energy and climate protection
- 53 Emissions
- 55 Water use and water pollution control
- 56 Waste
- 56 Biodiversity
- Transport and employee mobility

#### 58 Human Resources

- 58 Our approach
- 60 Employees in figures
- 60 Apprenticeships and continuing education
- 63 Diversity and equal opportunity
- 64 Work-life balance
- 64 Co-determination and employee dialogue
- 65 Compensation and benefits
- 65 Occupational safety and health

### 68 Social Commitment

- 68 Our approach
- 68 Responsibility and organization
- 69 Social efforts
- 69 Art, culture and architecture
- 69 Supporting young people
- 69 Sports sponsoring
- 71 About This Report
- 73 GRI G4 Content Index
- 78 List of Graphics
- 78 List of Tables
- U3 Imprint

## Sustainability Management

Sustainable conduct and economic activities are among the central components of Aurubis' company strategy. This is why we treat the environment and limited natural resources with care. We exhibit responsibility towards our employees, suppliers, customers and neighbors. The same is true for the areas surrounding our plants and for the communities in which we do business.

Aurubis' active prevention principle is a basic component of responsible business activities. We act conscientiously in our operating business and are growing to a sensible and healthy extent. Both of these factors form the basis of our sustainable economic success and secure Aurubis' future.

We integrate sustainable conduct and economic activities into the corporate culture – at the individual sites and across business processes. We have initiated a variety of measures to minimize possible negative effects of our business activities on the environment, employees and society as much as possible from the beginning.

The Communication on Progress can be found at www.unglobalcompact. org/

Read more about human

rights and the UN Global

Compact on pages 6

### Responsible corporate governance

Responsible corporate governance requires common values and rules to point the way in everyday business. At Aurubis, the legal framework, corporate values and internal *policies*, ensure that our conduct is legally sound and that our communication with colleagues and business partners is fair and trusting. These guidelines also ensure a responsible attitude towards resources within our company. Aurubis' Code of Conduct prescribes correct conduct within the meaning of our responsible corporate governance to all of the employees across the Group.

Read more about compliance and policies on pages 23 and 27

Read more about the Sustainability Strategy on **page 35** 

Read more about our stakeholders, the survey and the materiality analysis on pages 32 and 33

Together with employees and employer representatives, we identified five values that are important to us: Performance, Responsibility, Integrity, Mutability and Appreciation.
PRIMA, which means "great" in German, is derived from the first letter of each value.

We also adhere to the German Corporate Governance Code. Accordingly, we value close cooperation between the Executive Board and the Supervisory Board as well as consideration of shareholders' interests. We rely on open communication, a responsible approach to risks and proper accounting and auditing. Furthermore: responsible entrepreneurial conduct doesn't end at our sites' gates but extends along the entire supply chain.

We respect human rights and advocate for their protection. Because they are of fundamental significance to us, we adhere to the internationally recognized core labor standards of the International Labor Organization (ILO). We have been a part of the United Nations Global Compact since December 2014 and are thus committed to working on implementing its ten principles related to human rights, labor, the environment and anti-corruption. The progress made in the year the Global Compact was signed was published in the Communication on Progress 2014. Because the Global Compact participants can also take part in national networks, the German sites have belonged to the German Global Compact Network and Aurubis Bulgaria has belonged to the Global Compact Network Bulgaria since October 2015.

The foundation of our work is our *Sustainability Strategy*, which we developed in 2012/13. The Sustainability Strategy establishes the main areas of activity for the coming years, which are supplemented by targets in the categories of economy, environment and people. In addition, action plans were also developed for individual areas of activity.

We are in close contact with our *stakeholders* through a variety of channels. For example, we carried out a stakeholder survey in 2015. We updated our materiality analysis on the basis of the results. This analysis confirms our areas of activity and targets.

### Organization

Sustainability is organized within the company in the Corporate Communications & External Affairs (CCEA) Department. The Vice President Corporate Communications & External Affairs reports directly to the Executive Board. Sustainability Management serves as the interface between the headquarters and the sites and coordinates all of the processes related to this topic. It is also responsible for continuously reviewing and developing the Sustainability Strategy at the same time. In the process, Sustainability Management cooperates with the respective divisions and departments in the Aurubis Group and assists with the operative implementation of sustainability measures.

The targets and measures are monitored and reviewed in close coordination among CCEA, the relevant departments and the Executive Board. The Supervisory Board is informed monthly about current sustainability developments.

One of Sustainability Management's important tasks is to establish our Sustainability Strategy in our employees' awareness, in the operating processes of everyday work and externally with our stakeholders. Every employee should live the Sustainability Strategy each day and contribute to implementing the agreed measures and targets. In our communication with our external stakeholders, our Group representative offices in Berlin and Brussels are key interfaces to policymakers, administrative bodies, associations and other institutions.

### Compliance and policies

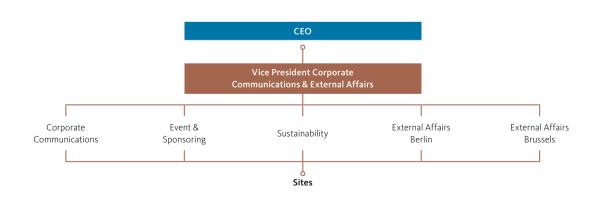
We consistently follow all legal regulations because violating the law can have serious consequences – for our employees, for our partners and for Aurubis as a whole. For us, compliance also means that we act in accordance with our own ethical principles and values as well as the internal corporate policies. The central document is our *Code of Conduct*, which is valid for all employees across the Group.

The Executive Board and Compliance Management together promote a compliance culture in which awareness is raised for following rules and laws. Compliance Management also establishes the main targets, develops the corresponding organization and identifies, analyzes and communicates significant compliance risks. It develops a compliance

The Code of Conduct is published on our website. It is available in six languages: www.aurubis. com/code\_of\_conduct

#### **Corporate Communications & External Affairs**

o G 01



program by introducing principles and measures to limit risks and prevent violations. Furthermore, Compliance Management ensures that the targets and measures are communicated. In addition, it reports to the Executive Board and the Audit Committee regularly and as warranted about the development of the compliance management system as well as about violations and initiated measures. Compliance Management works together closely with Risk Management and Internal Audit.

The compliance management system is documented in a corporate policy and is overseen by the Chief Compliance Officer (CCO). Apart from the CCO, there are local compliance representatives at the larger Group sites that assist employees with compliance issues. Employees and business partners can contact the Aurubis Compliance Portal ("whistleblower hotline") anonymously if they have a grounded suspicion of criminal activity (e.g. corruption, fraud, dishonesty). This hotline is operated by external, independent attorneys. If offenses are actually proven, the corresponding employees depending on the offense - are given a warning, are discharged and/or damages are claimed. There was one case of corruption at Aurubis during the reporting period, which was reviewed and rectified accordingly.

We do not tolerate discrimination. We have firmly established the principles of equal opportunity and mutual respect in the Aurubis corporate culture. We call on all employees to report cases of discrimination to their HR departments or the CCO. All reports are investigated immediately and steps are initiated to remedy any injustices. There were no instances of discrimination during the reporting period.

Aurubis is committed to fair competition; competitive agreements are prohibited. The Bulgarian anti-trust authorities are currently carrying out proceedings against Aurubis Bulgaria and Aurubis AG due to alleged abuse of the company's dominant position in the sulfuric acid market. Aurubis views the allegations as unfounded. The anti-trust authorities will likely make a decision in 2016.

Because compliance is very important to us, we offer regular training sessions on this topic. During the reporting period, about 400 participants took part in events focused on antitrust and anti-corruption law. These training sessions concentrate on the corruption risk in relation to each respective employee and not in relation to the management level.

Our policies are binding for our employees. They cover all of the important areas across the Group – from labor conditions to environmental protection, safety and health, competition, procurement, corruption, company property, conduct with authorities and the media, confidentiality, insider trading to security and documentation. We have developed especially detailed policies for areas with increased risks, for example the Corporate Anti-Corruption Compliance Policy. Furthermore, detailed, site-specific rules have been derived from the Code of Conduct. We require other companies with which we work together to follow our policies.

The Responsible Care Global Charter and guidelines adopted by the International Council of Chemical Associations (ICCA) is especially significant for us. The Charter's objective is to improve the chemical industry's performance in product safety, environmental protection, health and equipment safety continuously.

Find more information about the International Council of Chemical Associations (ICCA) and Responsible Care at www.icca-chem.org/en/ Home/Responsible-care/ While developing the Sustainability Strategy, we identified our responsibility in the supply chain as an important issue.

We therefore seek out a dialogue with our partners to promote adherence to environmental and social standards and to avoid violations. A meaningful step in this regard is *Business Partner Screening*, a process to assess raw material suppliers more systematically.

Aurubis has developed this screening system since 2013 in addition to the valid group-wide policy on *processing conflict-free gold raw materials*. The screening system has been used since 2015 to review the identity and integrity of Aurubis AG's business partners before entering into contracts. Business Partner Screening is based on a software and relies on multiple steps. The plan is to implement it across the Group. It is based on a questionnaire that analyzes possible financial, tax law, criminal law and sustainability risks, among other factors. If any risks are discovered, the Compliance and Sustainability Departments follow up on them.

Contracts will not be entered into with new business partners before they are screened. For existing business partners, the screening will be repeated regularly – depending on the original risk. Our Business Partner Screening is continuously developed and adjusted to changes in requirements.

### Risk and opportunity management

Risks and opportunities are key elements of our business activities and are essential to the company's success. As part of our operating business activities and our strategic management, we weigh opportunities and risks against one another and ensure that they remain balanced. We try to identify and evaluate opportunities as early as possible. We only accept risks when they provide an opportunity for commensurate economic success.

### **Human rights**

Aurubis respects human rights and advocates for their protection. We reject any form of discrimination, forced labor or child labor and respect the rights of indigenous populations. Compliance with the internationally recognized core labor standards of the International Labor Organization (ILO) are of fundamental significance. Furthermore, we have been committed to the UN Global Compact since December 2014. The Executive Board bears responsibility for the issue of human rights.

Aurubis purchases most of its copper concentrates under long-term contracts with large, global mining companies that regularly publish their environmental standards and are committed to sustainable economic activities. They all operate in accordance with the OECD Due Diligence Guidance. Most of these mining companies are organized in the *International Council on Mining and Metals (ICMM)* and commit to sustainable raw material mining.

We communicate with various stakeholders such as mining companies, policymakers, NGOs and the media about the conditions in the individual supplier countries. One example from 2014 was the discussion with representatives of Misereor and a Peruvian human rights representative at Aurubis in Hamburg.

Read more about risk and opportunity management in the Annual Report starting on **page 89** 

Read more about Business Partner Screening on page 7

Read more about our Gold Policy on page 7

Read more about the International Council on Mining and Metals at www.icmm.com We expect our business partners to follow not only local laws but also UN sanctions and trade restrictions as well as UN conventions related to human rights, environmental protection and safety. If the supplier doesn't have its own declaration in this regard, a corresponding clause is included in the new supply contracts. These contracts generally extend over many years.

We consider violations of international human rights standards to be a fundamental breach of contract. Our raw material purchasers are in constant contact with the suppliers. Furthermore, we review our suppliers systematically with our Business Partner Screening.

If there is any suspicion of violations of environmental or social standards, we seek out a dialogue with the respective business partner. If we find anything conspicuous, we communicate this and call on the supplier to remedy the issue. We are confident that we can achieve more through dialogue and persuasion than through withdrawal from the relationship. We want to ensure that both we and our business partners uphold the various aspects of sustainability. Differing views and possible grievances must be able to be mutually addressed and broached if the limited influence a company like Aurubis has allows for it. We are aware that we can and must assume responsibility. However, the responsibility rests first and foremost in the hands of the respective country and the mining companies on site.

A list of our memberships can be found at www.aurubis.com/ memberships

Eurometaux Vision 2050: www.ourmetalsfuture.eu

### Stakeholder dialogues (G4-24, G4-26, G4-27)

Communicating with stakeholders is exceedingly important for Aurubis. Our most important stakeholders include employees, the capital market, customers and suppliers, the scientific community, the media, NGOs and society.

During the open dialogue that we conduct, we exchange information and opinions and find out about the expectations that are placed on us. At the same time, we identify societal trends, political developments, internal and external risks and potential for our business early on. Due to the personal nature of this dialogue, we also create trust and receive suggestions for improvements. Both are crucial for the achievement of our goals. From a practical standpoint, this dialogue with our stakeholders takes place in the form of talks, forums and events. The discussions we have during visitor days, shareholder events, capital market conferences and supplier and customer meetings are especially intensive.

Through our Group representative offices in Berlin and Brussels, we find out early on about new legislative proceedings and other initiatives that could decisively influence our work. Our employees therefore serve as contacts for the relevant actors in the European Parliament, the German Bundestag, federal ministries and federal state offices. They clarify the consequences of possible resolutions for Aurubis, for the non-ferrous metals sector and for German industry. The decision-makers are generally not industry experts, so they are not always aware of the extent of the possible effects of new regulations.

We are an active *member* of the main economic, industry and specialist associations in the copper and chemical industries. For example, these include:

- » the Federal Association of German Industry,
- » the German Association of the Chemical Industry,
- the German Federation of the Metal Industry,
- » Eurometaux

### Dialogue with policymakers (G4-26, G4-27)

Our objective is to help shape the legal conditions for environmentally sound copper production in Europe with our knowledge and many years of experience.

The areas of raw materials, energy and environmental protection and the reduction of trade restrictions are at the forefront of our dialogue with policymakers. Other important topics for us are transport and logistics, finance and taxes as well as Corporate Social Responsibility. Our dialogue partners are members of the European Parliament, the German Bundestag, representatives of the European Commission, federal and state ministries and civil society groups.

The topics we discuss include the German Renewable Energies Act (EEG) and the *National Action Plan for Business and Human Rights*, which is to be developed in Germany in 2016 under the leadership of the German Ministry of Foreign Affairs. Another important issue for us is the European Commission's draft regulation on so-called conflict raw materials, which is intended to contribute to fulfilling due diligence requirements in the supply chain.

Aurubis regularly participates in public consultations, either directly or indirectly through associations. During the reporting period, this took place via the German Federal Ministry for Economic Affairs and Energy (BMWi) on the electricity market law, on the European Commission's Circular Economy Package and on the planned reform of the EU Emissions Trading System (ETS), which is intended to prevent the outsourcing of  $\mathrm{CO}_2$ -intensive processes to regions outside of the EU.

Aurubis also actively takes part in the political dialogue to counter the challenges that regularly arise from changes to regulatory requirements. For example, in Germany we participate in the Energy Efficiency Platform led by the Federal Ministry for Economic Affairs and Energy.

At the European level, we take part in projects that put a stop to the illegal shipment of scrap to developing countries. This type of shipping leads to a loss of valuable raw materials for the domestic industry and to environmental and health risks in the regions concerned, as they don't always have the appropriate recycling and disposal methods.

#### Dialogue with the capital market (G4-26, G4-27)

Aurubis communicates actively and openly with all market participants. We inform private shareholders, institutional investors and financial analysts alike. Our goal is to achieve suitable ratings for Aurubis shares promptly and comprehensively.

The Annual General Meeting is the main event for direct communication with our shareholders and retail investors. In addition to the Annual General Meeting, Aurubis also offers private shareholders an information and discussion platform in its dialogue events at the Hamburg and Lünen sites. During fiscal year 2014/15, a total of 380 private shareholders (previous year: 440) participated in two (previous year: three) dialogue events. The visitor days provide another communication opportunity. Overall, 596 people (previous year: 510) took part in the five (previous year: six) visitor days that were held in fiscal year 2014/15.

We inform our institutional investors and analysts in personal discussions – in Germany and around the world.

We also utilize different external events for private share-holders to present our company and to initiate a dialogue with this group. Furthermore, the employees of the Investor Relations Department can be contacted for information by phone at any time – an option that is used by many investors.

Aurubis is listed in the European Commission's transparency register: http://ec.europa.eu/ transparencyregister/

www.auswaertiges-amt. de/EN/Aussenpolitik/ Aussenwirtschaft/ Wirtschaft-und-Menschenrechte/ Wirtschaft-und-Menschenrechte\_node. html Read more about "closing the loop" on pages 12 and 13

Subscribe to the Copper Mail at www.aurubis.com

### Dialogue with customers (G4-26, G4-27)

We communicate with our customers via a number of channels. This includes close cooperation in joint projects, for example "closing the loop" projects. Customer events such as the fourth "Aurubis Customer Dialogue" in 2014 in Belgium are another way to gather customer opinions and suggestions. Our stakeholder survey and the "Copper Mail" newsletter are examples of the communication channels we use.

### Dialogue with NGOs (G4-26, G4-27)

Non-governmental organizations – NGOs for short – are important stakeholders for us. Since spring 2014, seven meetings have taken place with NGOs active in environmental and social issues: Germanwatch, Deutsche Umwelthilfe, WWF, Rettet die Elbe, Transparency International, Südwind and Misereor. Topics such as resource efficiency and recycling, responsibility in the supply chain, but also energy consumption, environmental impacts and the Sustainability Strategy were discussed constructively. We would like to continue this dialogue.

#### Dialogue with employees (G4-26, G4-27)

For the purpose of mutual understanding, Aurubis promotes dialogue with its employees as well as between employees and the management through employee talks. We also support communication among employees. This is the case for the work of Aurubis' European Works Council (EWC), which meets twice a year. Employees are informed regularly through the magazine "CU" and the intranet.

Another form of dialogue with our employees is Energy Day, which took place for the first time in July 2014. Under the motto "100% Energy-Efficient at Work and at Home", more than 500 employees at the Hamburg plant gathered information about the efficient use of energy – in the plant and at home.

### Materiality analysis (G4-18, G4-25, G4-26, G4-27)

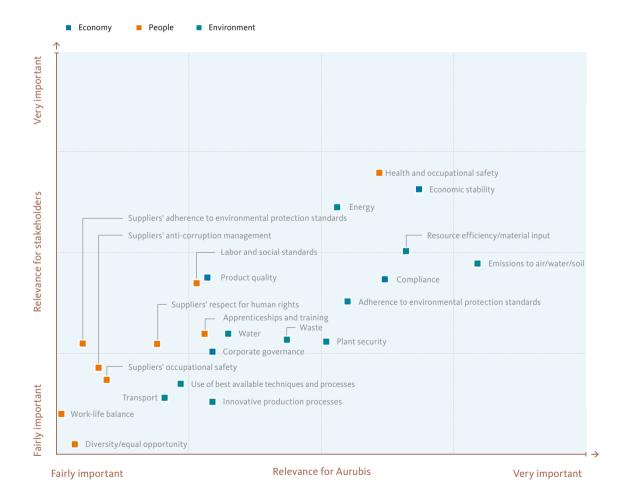
In September and October 2015, we carried out our internal materiality analysis based on the one from 2013, as well as an external stakeholder survey. The topics identified two years ago and new topics served as the foundation for prioritizing the issues in the 2015 materiality process. The goals were to determine Aurubis' central sustainability topics for the company's long-term success, to focus the Sustainability Strategy and to develop the areas of activity and objectives related to sustainability further.

Fifteen managers from all of the company's divisions carried out the internal materiality analysis. We included all eight of the stakeholder groups relevant to Aurubis in the external stakeholder survey. Significant stakeholders were then selected from each stakeholder group.

Overall, 29 participants were personally interviewed by an external service provider. Aurubis is therefore in the same range as the EURO STOXX 50 and the DAX 30 companies with regards to the number of stakeholders interviewed over the phone. About 60 % of the participants came from Germany, while the others came from other European countries. Chile and Canada.



The graphic below shows the upper right quadrant of the materiality matrix. It illustrates the issues that are important for both the stakeholders and Aurubis. The matrix is the result of our materiality analysis carried out in September 2015.



Aurubis · Sustainability Report 2015

# Stakeholder survey

Number of survey participants



More than 80% of the survey participants perceive Aurubis as a company that acts sustainably within the non-ferrous metals industry. Important focuses that were identified included:

- Resource efficiency
- Energy
- Health and occupational safety
- Economic stability
- **Emissions**

Overall, our cooperation with our stakeholders is viewed positively. One key insight from the stakeholder survey was that our stakeholders - especially our customers - would like more information from us on the topic of sustainability. Another issue in which more transparency is called for is our supply chain. Our new Supply Chain Management division -SCM for short - will contribute to this. (G4-18, G4-25, G4-26, G4-27)

Sustainability Strategy and sustainability targets ი G 03

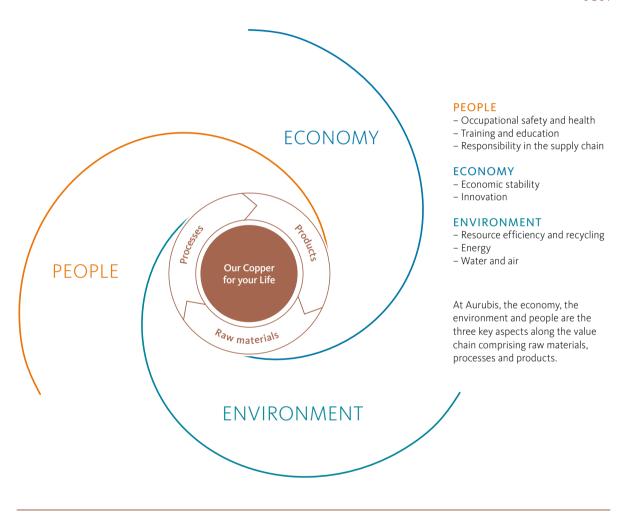
We utilize a number of measures to minimize the negative impacts of our business activities on the environment, our employees and society. The basis of our targets and our activities is our Sustainability Strategy, which we developed in 2012 and 2013. The materiality analysis updated in 2015 confirms our selected areas of activitiy and targets.

The core of the Sustainability Strategy is the alignment of "Economy - Environment - People" along the individual phases of the Aurubis value chain, "Raw materials - Processes - Products". This Sustainability Strategy establishes the main areas of activity for the coming years. Based on these areas, 15 targets in the categories of the economy, the environment and people as well as action plans for individual areas have been developed. When implementing the targets, we clearly state the planned measures, responsibilities and deadlines. This makes our sustainable company development measurable and manageable.

The central goals include continuing the generation and execution of ideas from Innovation Management, reducing our emissions further, expanding the recycling of complex materials, increasing occupational safety and dealing more intensively with our responsibility in the supply chain. The rise in questions and demands from relevant, diverse interest groups validates this approach.

Read more about Supply Chain Management on page 8

——o G 04



# Sustainability targets and degree of achievement

| Areas of activity                 | Tar    | gets and measures <sup>1)</sup>   | Date | 2015 status   |  |  |
|-----------------------------------|--------|---|------|---|--|--|
| ECONOMY                           |        |   |      |   |  |  |
| Economic stability                | »      | Achieve a return on capital employed (ROCE) of at least 15%   | 2018 | The target was achieved in fiscal year 2014/15; due to improved operating earnings, Aurubis achieved an ROCE of 18.7 %, a significant increase over the previous year (8.5 %).  |  |  |
| Innovation                        | »      | Increase efficiency of copper in applications by 15 %   | 2018 | One example of an increase in copper's efficiency that corresponds to the target is at Aurubis Belgium, where CAD tools are being developed together with universities and customers to optimize the current load capacity of various conductors based on copper. An example of one of the results is a hollow profile that is now used in place of a massive conductor.  |  |  |
|                                   | »<br>» | Conduct 15 projects with original equipment manufacturers (OEMs) with new applications of copper Generate and implement 18 developed ideas from Innovation Management | 2018 | Since 2012/13, we have developed various copper-based materials and innovations for a broad range of different applications and have achieved about 50% of both targets.  |  |  |
| ENVIRONMENT                       |        |   |      |   |  |  |
| Resource efficiency and recycling | »      | Increase the quantity of processed complex recycling materials (e.g. electronic scrap) by 20 %  | 2018 | In fiscal year 2014/15, we processed about 730,000 t of recycling raw materials (around 680,000 t in fiscal year 2012/13) and the proportion of complex materials rose considerably compared to fiscal year 2012/13.  |  |  |
|                                   | »      | Audit and certify Aurubis pursuant to the WEEE End Processor Standard (WEEE: Waste Electrical and Electronic Equipment)   | 2016 | The first audit in 2015 was successful and Aurubis received the corresponding certificate.  |  |  |
|                                   | »      | Establish a "closing the loop" system with a minimum of five customers  | 2018 | Aurubis customers are becoming suppliers as part of the "closing the loop" project. Partnerships of this type already exist; others will follow in the medium term.   |  |  |
| Energy                            | »      | Reduce CO <sub>2</sub> emissions by 100,000 t of CO <sub>2</sub> through energy efficiency projects and internal electricity projects                                 | 2018 | We have commissioned turbines to produce electricity from waste heat at the sites in Hamburg and Lünen, with which we reduce CO <sub>2</sub> by about 20,000 t per year. In the first half of 2016, we will start up an additional turbine at the Pirdop site. Furthermore, we are currently investigating efficiency potential. For example, over 100,000 t of CO <sub>2</sub> per year could be reduced through heat extraction for the district heating supply. Aurubis leads an official working group that is supervising the process of the technical and economic feasibility study. |  |  |
| Water and air <sup>2)</sup>       | »      | Reduce metal emissions to water by 10 %   | 2018 | A reduction of 41% was achieved in 2014. The target is being continued in order to secure the low emission level in the long term as well.  |  |  |
|                                   | »      | Reduce dust emissions to air by 10 %  | 2018 | A reduction of 26% was achieved in 2014. The target is being continued in order to secure the low emission level in the long term as well.  |  |  |
|                                   | »      | Reduce SO <sub>2</sub> emissions in primary copper production by over 80 % compared to 2000   | 2015 | A reduction of 86% was achieved in 2014. It is necessary for this success to be confirmed for 2015 as well.   |  |  |

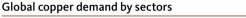
<sup>&</sup>lt;sup>1)</sup> The base fiscal year is 2012/13 if not otherwise stated. <sup>2)</sup> Base year: 2012

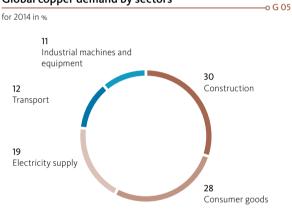
| Areas of activity Targets and measures <sup>1)</sup> |    | gets and measures <sup>1)</sup>   | Date | 2015 status   |
|--|----|---|------|---|
| PEOPLE   |    |   |      |   |
| Occupational safety and health                       | >> | Reduce work-related accidents with lost time (LTIFR) to 4.3   | 2018 | With an LTIFR $_{(1:n)}$ of 6.3 as at September 30, 2015, we came one step closer to our target and to our "Vision Zero".   |
|  | »  | Introduce measures to make working times more flexible with respect to different life phases        | 2018 | As part of company health management in Hamburg, work is being carried out on several company agreements related to better work-life balance. Moreover, Aurubis participated in a ZEIT-Stiftung study that shows how employees in high-stress occupations can stay healthy and productive. The result was a set of guidelines that will likely be applied in the company.   |
| Training and education                               | »  | Develop measures to increase interest among girls and women for technical education and professions | 2018 | For example, Aurubis is involved in the project mint:pink, whose purpose is to increase the number of girls in scientific and technical school courses and thus to increase the proportion of young women in the corresponding degree programs and occupations. Another example: At the Lünen site, we support female future leaders in the Unna region of Germany within the framework of an EU project. During this project, targets and measures were agreed on that are intended to increase the number of female employees until 2020. |
| Responsibility in the supply chain                   | »  | Develop and expand systematic supplier screening  | 2016 | The screening has been developed; since 2015 the identity and integrity of Aurubis AG's business partners have been reviewed before entering into contracts.  |

 $<sup>^{1)}\,\</sup>mbox{The base fiscal year is 2012/13 if not otherwise stated.}$ 

# Product Responsibility

With our nearly 150 years of experience, modern production processes, high efficiency and close cooperation with our customers, we provide excellent copper products. We set standards in recycling and generate copper of the highest quality from various and often complex raw





Source: Wood Mackenzie, Copper, December 2015

# Our approach

With our products and presence in Europe, America and Asia, we are one of the leading integrated groups in the global copper industry. We have also achieved this position because we pursue a strategy as part of our responsibility for our products: We utilize our expertise in smelting, refining, metal recovery, recycling and copper processing to generate the highest added value from various raw materials along the entire value chain. For example, we

use our own copper cathodes to produce semi-finished products, which are processed by our customers. Because we produce most of these copper cathodes ourselves, we achieve two things: the high value added previously mentioned and consistently high quality for all copper products. At the same time, we work on ensuring that our production and our products have a declining impact on people and the environment. This applies to the development, manufacturing and transport of our products as well as during and after the usage phase. We also contribute to overcoming global challenges such as climate change with our products, as copper is distinguished by its high conductivity. This feature plays a decisive role in facilities used to produce renewable energies, in energy transport, in electric cars and in smart grids.

As an expert in multi-metal recycling, we help close the material cycle for copper and other metals. For this purpose, the new function Business Development Customer Recycling Solutions was created in Business Unit Copper Products. This function links copper product sales with the sourcing of recycling raw material – thus turning customers into suppliers as well.

Our customers' requirements and opinions are very important to us. Consequently, we carry out customer surveys and record key figures for customer satisfaction, such as delivery reliability and quality - in order to maintain our classification as a grade A supplier, among other things. If we discover any errors through the routine feedback our key customers offer in supplier evaluations, corresponding measures are initiated to correct these issues. Claims and complaints are processed promptly to offer customers solutions to their problems.

We comply with all applicable standards and regulations and communicate closely with our customers about these topics. Their inquiries concern our adherence to REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals), SVHC (substances of very high concern), ELV (end-of-life vehicles), RoHS (restriction of hazardous substances) and the avoidance of conflict minerals. One of these is gold, for example. In 2013 we developed a Gold Supply Policy that is valid in the entire Group, is oriented to the requirements of the Gold Guidance of the London Bullion Market Association (LBMA) and is based on the OECD Due Diligence Guidance for conflict minerals. With the successful external audit in 2015, we received "Good Delivery" status from the LBMA, which confirms the conflict-free nature of our gold.

Research, Development and Innovation

Innovations from our Research, Development and Innovation division are very significant for us, as they help to secure our economic future. Our international team of 56 highly qualified employees from different fields develops successful innovations – together with internal and external partners. The number of employees in R&D and Innovation is therefore higher than the 47 employees in fiscal year 2012/13. Our expenditures for R&D and Innovation were € 11 million in fiscal year 2014/15 (€ 10 million in 2013/14).

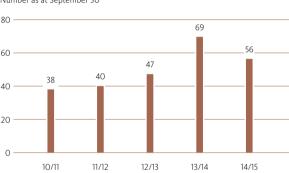
R&D and Innovation reports directly to the CEO, is organized across the Group and works across disciplines and departments. Cooperation is especially close with the divisions overseeing environmental protection, production, quality, process technology, marketing, sales and strategy.

We reinforced the strategic orientation of our R&D activities during the reporting period. Our research network with

respected international universities and institutes plays a significant role in this regard. One example: Utilizing electricity as efficiently as possible is one of the central goals of business and science. Because the transport of electricity is always connected with losses due to the resistance of electrical mains, the European project "Ultrawire" is attempting to create a material with the lowest possible electrical resistance by combining copper and carbon. We are taking part in this project together with other partners.

Read more about "Ultrawire" on **page 15** of the Annual Report





Read more about our LMBA status on pages 7 and 29

Read more about the LBMA at www.lbma.org.uk

Environmental protection is a key driver of our R&D strategy. The consideration of current and future environmental standards, a resource-efficient approach to raw materials, water and energy and the continuous reduction of emissions are important targets in this respect. One example of a reaction to future environmental demands is the research in primary and secondary metallurgical slags, which we continued.

Read more about "BlueBrass 42" at www.bluebrass.com

Read more about SCOPE on **page 10** of the Annual Report When developing innovations, we also utilize our close contact with our customers to orient our R&D work to the demands of the market. One example can be found at Aurubis Stolberg. The site has developed the "BlueBrass 42" family of alloys, which combines the current standards of the electrical and automotive industries in terms of conductivity, machinability and formability with the increasing demand for lead-free products. There was a breakthrough towards series fabrication for key customers during the reporting period.

In the "Alloyed Wire" project, we made progress in the fabrication of high-performance alloys made of wire with high copper contents. This top-quality wire is exceedingly stable with high electrical conductivity. It is used as a base material for connectors, press-in contacts and electrical conductors with special demands. These materials are also used in safety applications in cars, e.g. airbags and ABS. Nevertheless, additional process developments are necessary before a stable series production is possible. In the strip sector, the introduction of a high-performance alloy which is used to produce connectors was successfully concluded. The special feature is once again the good combination of strength and conductivity, paired with above-average resistance to softening at higher temperatures. The alloy is used in the automotive sector, among others. In addition to casting the alloy, production trials up to the initial sampling stage were successfully carried out with key automotive suppliers.

Global copper demand is growing, while raw materials are becoming more complex. This is true for the composition of both copper concentrates and recycling material, and challenges in production are rising accordingly. For this reason, projects and issues related to complex metallurgy were a significant focus of R&D work during the reporting period.

System integration, modeling and optimization will be a new R&D field within our Group in the future. This is the case for SCOPE, for example, which will be utilized in the Supply Chain Management division to support production planning and purchasing decisions. With SCOPE, which is an abbreviation for Supply Chain Optimization and Excellence, we want to depict procurement and production in their entirety with close involvement of the suppliers. The pilot project was started in the primary copper division, in which we have modeled the supply chain from concentrate to cathode, taking commercial and technical aspects into account.

We try to identify future research and development topics early on. We increasingly use cross-sector approaches such as industry workshops. For example, 13 employees from different sites and two international experts met at Aurubis Belgium in October 2014 to discuss the opportunities and risks of "additive manufacturing" – better known as 3D printing – for the Aurubis Group.

In 2015, we held the Innovation Days for the second time. This group-wide and cross-departmental event provides a forum for presentations by internal and external experts, introduces our key R&D and Innovation projects and is a platform for discussion about concrete issues. The plan is to continue this successful format annually.

In August 2015, an Open Innovation Workshop on the topic of mechanical pre-treatment of recycling materials was held together with suppliers, universities and equipment manufacturers.

# Quality and quality management

Exceptional quality is the foundation of our long history and our success. This is why we are bound to the highest standards and strive for the production of flawless products with consistently high process and service quality in all company divisions around the world. For instance, our copper cathodes have an outstanding chemical quality that exceeds the requirements of the metal exchanges.

The quality policy is prescribed by the Executive Board and implemented by quality management in the individual divisions. All products are subject to comprehensive quality inspections. Quality management at the sites is coordinated in alignment with the standards issued by the responsible Executive Board member and is monitored with quality KPIs. From an organizational perspective, quality management is part of Business Line Rod & Shapes. We utilize modern process management and quality assurance systems to fulfill international standards and customer requirements.

The quality management systems at all of the production sites are *certified* in accordance with ISO 9001:2008.

The Business Line Flat Rolled Products sites in Buffalo, Stolberg and Zutphen have also been certified in accordance with the stricter rules of the standard ISO TS 16949. This standard applies first and foremost to suppliers of the automotive industry. Adherence to all of the norms is regularly reviewed by external audits carried out by the certifying body or by our customers themselves. The recertification of the quality management system in the Hamburg plant was carried out by TÜV Nord for the first

time in summer 2015 in order to ease the integration of the management systems for the environment, energy and quality. TÜV Nord also confirmed the fulfillment of all of the DIN EN ISO 9001:2008 requirements. A new certificate valid until 2018 was issued.

The cathode brands NA-ESN, HK, Olen and Pirdop are listed as Grade A cathodes on the London Metal Exchange. State-of-the-art process management ensures consistent cathode quality. The cathodes' chemical analyses and recrystallization processes are continuously reviewed in order to be able to initiate corrective measures promptly in the case of even the smallest quality fluctuations.

Our own quality standards are expressed in outstanding product and service quality. In addition to excellent products, we offer our customers high-quality services, for example in logistics and commercial and technical customer service. Our engineers support our customers on site. Training, seminars and workshops round off our service offering.

Manufacturers, for instance of electrical appliances, must ensure and prove that their used appliances are recycled in an environmentally sound, legal manner with verifiable recycling rates. This is why five to ten audits are carried out annually at our site in Lünen by companies such as Apple, Daimler, DOW and Flextronics. They have their used appliances directly or indirectly delivered to the Lünen recycling center, where they are processed. Each of these audits is also a test of the Aurubis management systems and helps to improve the quality of our work.

Read more about our certifications on pages 16 and 49

# **Product safety**

Copper as an element is not dangerous to the environment or to people. This is also true for our high-purity copper products and their processing if the processes of hot and cold forming are carried out correctly. Copper's harmlessness was also confirmed by a voluntary risk analysis of the copper industry in 2008. Furthermore, copper is used in the health sector. For example, doorknobs made of copper alloys have *antimicrobial properties*. Related studies show how hygiene-relevant field tests in hospitals demonstrate that copper and copper alloys reduce the hazards of multi-resistant pathogens.

Safety data sheets are available for copper and a number of other products. We can also issue an inspection certificate for every delivery which shows the precise chemical composition of the products and other physical parameters. We prevent hazards during the transport of our products to the greatest possible extent by strictly observing the applicable load securing regulations and the maximum permitted loads.

# Recycling

Copper is an ideal raw material for reprocessing, as it isn't fully used up but can be returned to the cycle as often as desired without a loss of quality. It therefore fulfills sustainability and resource efficiency requirements to a large extent.

Due to a higher level of consumption and shorter product lifecycles, the supply of recycling raw materials is also growing more quickly. In order to utilize the rising volume of so-called secondary raw materials from the IT and telecommunications sectors, for instance, we are expanding the processing capacities for these types of scrap and investing in state-of-the-art facilities. These materials are very diverse and include copper tube, electronic scrap and casting slags, for example. But we don't rely on the circular economy for copper alone. Nearly all of the other metals from the recycling materials are converted into marketable products at Aurubis.

In fiscal year 2014/15, we processed about 730,000 t of recycling raw materials (around 680,000 t in fiscal year 2012/13) and the proportion of complex materials rose considerably compared to fiscal year 2012/13.

While we obtain our primary raw materials from South America, North America and Europe in particular, we currently source more than 65% of our recycling materials from Western Europe. We are working on further diversifying secondary raw material sourcing as well, as distributing the purchasing volume among many suppliers protects us against regional fluctuations on the markets.

Read more about copper's antimicrobial properties at www.antimicrobialcopper.

Secondary raw materials include complex end-of-life materials. Among other things, these come from electronic devices, vehicles and other items used daily that are made of materials such as plastic, ceramic, glass and wood. They can be mechanically attached, i.e. screwed together, glued or plugged, or they can arise by alloying multiple metals. Separating them into material and product streams by type in order to reuse them is a significant challenge. We usually utilize highly developed mechanical, physical and metallurgical separating and refining processes in different combinations for this purpose as part of our multi-metal recycling. In this way, we recover a wide range of additional elements besides copper; non-ferrous metals such as tin, zinc, lead and nickel as well as precious metals such as gold and silver. Roughly 50 % of our precious metal output comes from recycling. We have set the goal of increasing the volume of complex recycling materials by 20 % between 2013 and 2018.

We can only achieve our goals with modern recycling processes. The same is true for the current requirements related to material preparation, metallurgy, stricter legislation and growing environmental protection demands. For this and other reasons, a voluntary standard was developed under the European Electronics Recyclers Association and Eurometaux. It centers on the treatment and processing of *WEEE* fractions (under the Waste Electrical and Electronic Equipment Directive). We signed this standard in September 2014. We are therefore one of the companies that has pledged to implement all of the corresponding specifications at its electronic scrap processing sites and to have this audited by an independent expert. The first audit in 2015

was successful and Aurubis received the corresponding certificate for "Standard on End-Processing of WEEE Fractions Part I: Copper and precious metal containing fractions"

Aurubis' customers include the processing industry, in which production residues accumulate which also have a high copper content. One of the targets we set in our Sustainability Strategy was to establish a circular system with at least five additional customers by 2018. We already have partnerships like this; as part of the "closing the loop" project, we take back valuable materials from customer companies. Additional partnerships are planned in the medium term.

Read more about "closing the loop" on pages 12 and 13

Apart from the extensive use of secondary raw materials for metal extraction, a number of consumable materials such as iron, sand and fuels are currently replaced with materials from recycling when this is possible from a technical standpoint.

We believe we are in good company with our commitment to recycling. The *European Commission* is promoting the circular economy with its new action plan from December 2015: The more that growth and progress are based on innovations in the circular economy, the more sustainable the use of primary resources will be.

Read more about the European Commission's action plan at ec.europa.eu/ environment/circulareconomy/index\_en.htm Read more about WEEE on page 16

# Supply chain

# Raw materials

We source our primary and secondary raw materials from a number of different suppliers, which protects us from becoming too dependent on individual major suppliers and shields us from regional fluctuations on the global market.

Our suppliers of primary raw materials are the established companies in the industry. On the one hand, we value long-term relationships and strategic cooperation with our suppliers. On the other hand, we require them to produce and/or export the purchased material in compliance with applicable laws, regulations, statues and requirements of the country of origin. We also expect our business partners to follow UN sanctions and trade restrictions as well as UN conventions related to human rights, environmental

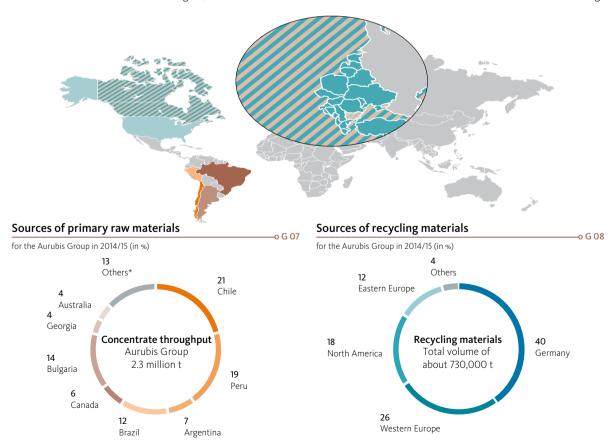
protection and safety. We have included a corresponding clause in our – usually long-term – supply contracts since 2013. In the meantime, this clause is a component of about 75% of our supply contracts for primary raw materials.

Our raw material purchasers are in constant contact with our suppliers, including regular meetings and on-site visits. We have implemented *Business Partner Screening* for all raw material deliveries made to Aurubis AG, a system in which observance of *human rights* and environmental protection play a role. The screening is currently being expanded to other divisions and subsidiaries.

We consider non-compliance with these agreements by our suppliers to be a fundamental breach of contract. The strictest sanction in the case of a violation would be ending

Read more about Business Partner Screening on **page 7** 

Read more about human rights on **page 29** 



\* Countries supplying < 2 %

the business relationship. We generally don't go this route, however, as it takes away the possibility of having a positive influence in a cooperative relationship. We focus on persuasion and intensify direct dialogue along the supply chain to strengthen compliance with environmental and social standards and to avoid violations, among other reasons. We collect information about supplier countries and suppliers through various stakeholders and media.

Compliance with national and international laws is supervised by the responsible authorities of the respective country. Most of our suppliers are organized in the International Council on Mining and Metals (*ICMM*) and thus commit to sustainable raw material mining.

We source most of our secondary raw materials from Germany and other EU countries. Compared to primary raw materials, secondary raw materials are largely purchased on the basis of short-term supply contracts.

# Operating supplies

In addition to primary and secondary raw materials, we source various operating supplies, investment goods and services from about 2,500 active suppliers. At Aurubis AG, which includes the Hamburg and Lünen sites, 44% of the purchasing volume is covered locally, i.e. within a radius of 100 km. The sites' procurement departments are responsible for this. All materials and services are purchased on the basis of a Corporate Procurement Policy, which is adjusted to each individual site.

Our Corporate Procurement Department, which works group-wide, is responsible for concluding framework contracts, for process and organizational adjustments and for overarching supplier management. Higher-level topics are coordinated in regular meetings of the sites' procurement managers.

When it comes to environmentally relevant purchases at our German sites, we carry out an authorization process related to the purchases' environmental compatibility. This is used for waste disposal services, for example. We take a catalogue of questions about environmental protection and occupational safety into account when selecting suppliers. It is updated regularly and has to be answered by all new suppliers as well. Suppliers that do not complete the questionnaire or that provide insufficient answers to individual questions are not considered in the rest of the tendering procedure. We annually review the documents from our suppliers whose work is environmentally relevant to ensure that they are complete.

Read more about the ICMM at www.icmm.com

# Investment goods

When sourcing investment goods, additional detailed environmental protection and safety requirements for the product and the supplier are defined and taken into consideration. The criteria include energy consumption, emissions, material input, prescribed disposal methods, the expected lifecycle and whether important test certificates are available, for example for material quality or employee qualifications.

# Broad material and product knowledge in the Corporate Procurement & Logistics division



# Industrial Environmental Protection

Environmental protection, resource efficiency and climate protection are established targets in the Aurubis strategy and the company guidelines and are binding throughout the Group. They are also important components of our corporate culture that reflect our orientation: Copper is made by people for people.

# Our approach

# Challenges, strategy, targets

Environmental protection, resource efficiency and climate protection have been a central component of our corporate culture for many years. Our goal is to conserve natural resources and to maintain a clean environment for future generations, which is why production at Aurubis is carried out using state-of-the-art, energy-efficient plant technologies with very high environmental standards.

In the process, we pursue our strategy, which is enshrined in the Corporate Environmental Protection Guidelines and

our corporate policy together with our targets. Corporate Environmental Protection is responsible for ensuring adherence to these policies and the corresponding laws and regulations, for coordinating all measures in industrial environmental protection and for reporting. We rely on open dialogue and are involved in a number of projects. These include international investor initiatives such as the Carbon Disclosure Project and our local environmental partnership with the city of Hamburg, in which we are involved in issues like raw material efficiency, the circular economy, air pollution control and climate protection.

Another example is our cooperation with Eurometaux and the European Copper Institute in the three-year test and development phase of the European Commission's *Product Environmental Footprint* and *Organizational Environmental Footprint*. In the future, the Environmental Footprint is supposed to enable the environmental performance of products and companies throughout Europe to be uniformly determined, evaluated and possibly easier to compare.

Environmental Footprint on **page 15** 

Read more abut the

# Corporate Environmental Protection issues until 2015

-o G 10

# Climate protection

- » Target: Continuous reduction in CO<sub>2</sub> emissions
- Constructing turbines to use waste heat in Hamburg and Lünen

# Noise

- » Target: Reducing noise emissions
- » Example: Erecting a noise barrier in Olen

# Climate protection Noise Water Soil

# Waste

- » Target: Increasing recycling rates
- » Examples: Stronger marketing of fayalite in Pirdop
- » Optimizing the separation plant at E.R.N.

### Air

- » Targets until 2015:
- » Reducing SO<sub>2</sub> emissions in primary copper production by over 80 % compared to 2000 (86 % reduction achieved in 2014)
- » Reducing dust emissions in copper production by over 90 % compared to 2000 (96 % reduction achieved in 2014)

# Water

- » Target until 2015:
- » Reducing metal emissions to water in copper production by about 70 % compared to 2000 (83 % reduction achieved in 2014)
- » Examples: Operating new water treatment plants in Pirdop and Lünen

# Soil

- Target: Reducing the discharge of harmful substances into the soil
- Example: Paving large parts of the plant premises in Lünen and collecting rainwater

### **Policies**

A uniform environmental protection standard has been created for the Aurubis Group that is laid out in corporate policies and implemented across the Group within the scope of environmental management systems.

The corporate policies "Environmental Protection" and "Energy", which are applicable throughout the Group, form the foundation of our strategy, organizational structure and reporting in industrial environmental protection, energy and CO<sub>2</sub>. They define the responsibilities in the Group and the duties of Corporate Environmental Protection and Energy & Climate Affairs while also regulating the cooperation with the local environmental protection and energy officers as well as the managing directors/plant managers. The policies are supplemented by emergency, alarm and hazard prevention plans.

The Corporate Environmental Protection Policy also includes the tasks to implement the European chemical regulation, *REACH*. The goal of the regulation is to collect information about all of the materials available on the market in the EU, to evaluate them and to protect people and the environment with suitable measures. The environmental indicators outlined in the Corporate Environmental Protection Policy are reviewed and verified annually.

Apart from observing our own policies, we are oriented to voluntary obligations from initiatives such as the chemical industry's "Responsible Care" and the non-ferrous metal industry's "Metals pro Climate".

# Responsibility and organization

The chief representative for Primary Copper and the head of Corporate Environmental Protection are responsible for the strategic positioning of environmental protection in the Group. Corporate Environmental Protection reports directly to the chief representative for Primary Copper. The standards are implemented by the head of Corporate Environmental Protection together with the plant managers at the sites. Together with the sites' environmental officers, Corporate Environmental Protection supervises adherence to the legal environmental requirements, regulatory provisions, standards and business demands.

Environmental performance is monitored and controlled with the help of key environmental parameters. We regularly record the environmentally relevant data at all of the sites and consolidate it in Corporate Environmental Protection. Based on the Corporate Environmental Protection strategy, targets are defined on site at the Aurubis plants. The planning and implementation of the individual measures are also the sites' responsibility, though the plant managers and environmental

Read more about REACH at echa.europa.eu

# Responsibility for industrial environmental protection

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Executive Board/
Chief Representative for Primary Copper

Head of Corporate Environmental Protection

Plant managers/managing directors at the sites

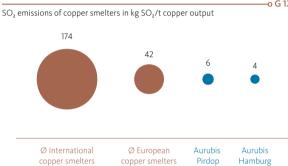
Environmental officers at the sites

officers at the sites consult with Corporate Environmental Protection. The set targets are reviewed and updated annually.

The development and implementation of the group-wide energy strategy is the central responsibility of the head of Corporate Energy & Climate Affairs, who reports directly to the Executive Board. This includes the local energy supply and purchasing strategy, CO<sub>2</sub> management and the coordination of the local energy management systems and the energy efficiency network. Planned local investments with effects on energy consumption, energy efficiency and CO<sub>2</sub> emissions are coordinated together with the plant managers and/or energy officers.

# Highest environmental protection standard worldwide

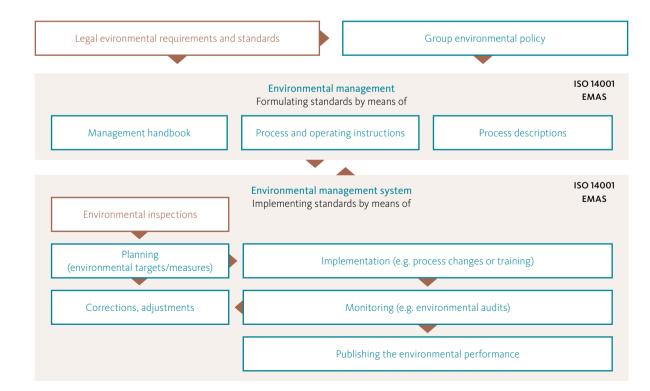
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When compared internationally, Aurubis has a top position in decreasing specific sulfur dioxide emissions, which are formed when copper is produced from copper concentrates.

# **Environmental management in the Aurubis Group**

-o G 13



# Management systems

We have implemented environmental management systems in accordance with ISO 14001 or EMAS at our sites. On the one hand, these systems fulfill the applicable legal environmental protection requirements. Furthermore, we also want to improve our environmental performance first and foremost: by designing economically reasonable, environmentally sound products and processes that fulfill occupational safety standards and by implementing targets in environmental and climate protection.

The goals are recorded, deviations are evaluated and corrective measures are initiated and monitored for their effectiveness. The effectiveness of the environmental

management system is reviewed annually with internal and external audits pursuant to the EMAS regulation or ISO 14001. We use the annual external audit to identify improvement potential and to have our effective implementation of environmental protection and the resulting successes verified by an external third party.

In order to identify and implement energy optimization potential, we introduced an energy management/energy monitoring system and had it certified at the main sites by TÜV Nord during the reporting period. All sites without an energy management system are planning an energy audit, for example in accordance with DIN EN 16247-1, or have already carried one out.

# Certifications by site

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|                                    | EMAS | ISO<br>14001 | ISO<br>50001 | ISO<br>9001     | TS<br>16949 | Efb |
|------------------------------------|------|--------------|--------------|-----------------|-------------|-----|
| Hamburg, headquarters (DE)         | •    | •            | •            | •               |             |     |
| Lünen (DE)                         | •    | •            | •            | •               |             | •   |
| Pirdop (BG)                        |      | •            |              | •               |             |     |
| Olen (BE)                          |      | •            |              | •               |             |     |
| Fehrbellin, CABLO (DE)             |      | •            | •            | •               |             | •   |
| Nersingen, Strass, CABLO (DE)      |      | •            | •            | •               |             | •   |
| Hamburg, E.R.N. (DE)               |      | •            | <b>**</b>    | •               |             | •   |
| Buffalo (USA)                      |      |              |              |                 | •           |     |
| Pori (FI)                          |      | •            |              | •               |             |     |
| Avellino (IT)                      |      | •            |              | •               |             |     |
| Zutphen (NL)                       |      | •            |              | •               | •           |     |
| Stolberg (DE)                      |      |              | •            | •               | •           |     |
| Emmerich, Deutsche Giessdraht (DE) |      | •            | •            | •               |             |     |
| Stolberg, Schwermetall (DE)        | •    | •            | •            | •               |             |     |
| Röthenbach, RETORTE (DE)           |      |              |              | •               |             |     |
| Hamburg, Peute Baustoff (DE)       |      |              |              | ● <sup>1)</sup> |             |     |

• certified **%** in development

**EMAS:** system with guidelines for environmental management systems and environmental audits

**ISO 14001:** standard for environmental management system guidelines

**EN ISO 50001:** standard for energy management system guidelines

**EN ISO 9001:** standard for quality management system guidelines

**TS 16949:** standard for quality management system guidelines for the automotive industry, based on ISO 9001

**Efb:** Waste Management Company (certificate in DE)

<sup>&</sup>lt;sup>1)</sup> For the sale of iron silicate granules used to produce blasting abrasives.

# **Training**

Our employees' attitude and motivation have a considerable influence on the achievement of our environmental targets and on the enhancement of energy efficiency. This is why they are continuously informed about all environmental and energy-related topics. Moreover, we hold a quality meeting several times a year and provide annual environmental and energy training sessions. We also carry out routine accident and emergency drills in coordination with the relevant authorities.

The environmental officers of all of the Group's production sites have met with the Executive Board or chief representative to exchange information twice a year since 2008. One example of a group-wide result of this exchange is the continued reduction in fugitive emissions by increasing the use of fog guns, which serve as sprinklers. The fog guns were first deployed in Hamburg and are now used at other sites as well.

In the energy sector, a discourse among the German energy management officers was initiated in 2013 with the goal of further increasing energy efficiency (best practice exchange). The plant managers and energy officers within the Group have met once a year since 2010 to discuss current European and national energy policy changes and the sites' energy projects.

Aurubis Bulgaria received the distinction of "Investor of the Year in Environmental Protection" from the Bulgarian Investment Agency for its investments in environmental measures.

# Capital expenditure

State-of-the-art technologies are the basic condition for effective and sustainable environmental protection, which is why we invest in our facilities continuously: An average of about one-third of the Aurubis Group's total capital expenditure has gone to environmental protection measures in the past several years.

# Capital expenditure for environmental protection

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This also demonstrates that we have a leading position in climate and environmental protection in copper production worldwide. The same applies to processing copper into products such as rolled sheet, wire and shapes products. In figures, this means that more than € 500 million has been invested in environmental protection measures in primary and secondary copper production since 2000. Following € 51.6 million in 2013, expenditures in 2014 amounted to about € 34.4 million.

During the reporting period, we made investments of € 44.2 million with the "Bulgaria 2014" project. About € 26 million of this amount was spent on environmental protection measures. These include process improvements, the expansion of the filter capacity for the concentrate drying facility, the replacement of the concentrate burner, an expansion of the smelting furnace's cooling equipment and the modification and increase of the waste heat boiler's heat exchange capacity.

# Resources and material input

We produce our main product, copper, from *copper concentrates* and *recycling materials*. It is an ideal metal for reprocessing, as it isn't fully used up but can be returned to the cycle as often as desired without a loss of quality. Copper therefore fulfills sustainability and resource efficiency requirements to a large extent.

The proportion of recycling materials has increased for years, but recycling alone won't be sufficient to cover rising global copper demand in the future.

In addition to copper concentrates and recycling materials, additional resources such as energy, water and operating supplies are necessary for copper production. The sparing use of these valuable resources not only reflects Aurubis' responsibility but is also a decisive competitive factor in light of increasingly scarce and expensive energy sources and raw materials.

# **Energy and climate protection**

The individual production steps in our value chain are complex and very energy-intensive overall. For us, the efficient use of energy is an issue of ecological and economic responsibility. As a result, all of our sites utilize energy as sparingly as possible. Increasing productivity and efficiency is part of our everyday work in the Aurubis Group. The Energy & Climate Affairs Department oversees the corresponding coordination of the measures across the Group.

In October 2014, the European Commission agreed on an energy efficiency target of 27% for 2030. This means that primary energy consumption is to be reduced by 27% by 2030 compared to 2005. At the same time, emissions of greenhouse gases are to be lowered by 40% and the proportion of renewable energies is to be increased to 27%. Furthermore, the EU Energy Efficiency Directive (EED) went into effect on December 4, 2012. It comprises a broad spectrum of different sectors and outlines activities to strengthen *energy efficiency* that are to be implemented by the Member States.

This includes the execution of energy audits by December 5, 2015, which we are also obligated to carry out.

The main German sites in the Aurubis Group have developed an energy management system, carry out energy audits and are *certified* in accordance with DIN EN ISO 50001 in the meantime. On this basis, we are operating our facilities in an increasingly energy-efficient manner because we can optimally control energy consumption and identify and implement additional measures to save energy. To benefit from others' experiences and to pass on our knowledge, we are an active part of the German Metal Industry Association's energy efficiency network. Furthermore, we plan on participating in the Hamburg Industrial Association's energy efficiency network. We communicate the insights from these networks within the Group.

When compared within the global industry, our efforts have been successful and we hold a leading position in energy efficiency. However, as we increase productivity and efficiency, we also reach our technical limits. Efficiency enhancements that have already been achieved don't serve as a blueprint for future development because the more steps that have already been taken in energy efficiency, the more difficult it is to optimize energy demand further. Because there are technological limits to reducing energy consumption and emissions, a continued high level of investment leads to only marginal improvements compared to past years.

Environmental protection already accounts for a large proportion of energy consumption at Aurubis, as the rising use of *complex recycling raw materials* with comparatively low copper content requires a higher amount of energy. However, since materials other than copper are also recovered, primary energy demand is decreasing steadily when the total input is considered. We therefore work to harmonize environmental protection, resource conservation and energy efficiency optimally across the raw material spectrum.

You can find information about the sources of our primary raw materials and recycling materials on page 44

Read more about our certifications on page 49

Read more about multi-metal recycling on **page 13** 

EU Energy Efficiency Directive: directive on energy efficiency passed by the European Parliament and European Commission on October 25, 2012 Read more about NEW 4.0 on page 17

Read more about the membrane filter press at www.umweltinnovations programm.de/projekte/ abgeschlossenes-projektaurubis-ag We are participating in *NEW 4.0* to identify potential for electricity flexibility for our plants. This large-scale project brings together more than 50 partners in the German federal states of Hamburg and Schleswig-Holstein.

In fiscal year 2013/14, the bulk of the energy input was about 3.651 TWh. It stayed at around the same level in fiscal year 2014/15 at 3.793 TWh. Aurubis has reduced its specific energy input in copper production by 16% since 2000. At 1.9 MWh per ton of copper output, the company was also at a very good level during the reporting period. The main energy sources are electricity and natural gas.

Individual measures were implemented to save energy and achieve the described reductions in the entire Aurubis Group during the reporting period. For example, all of the sites are working on using accumulated waste heat. The heat and process steam supply at the Pirdop, Lünen and Hamburg sites can largely be covered by waste heat. The increase in internal electricity production by using process waste heat leads to a reduction of about 40,000 t of  ${\rm CO_2}$  annually.

Read more about the Best Practice in Energy Efficiency 2015 label on page 17 For the turbine project in Lünen, we were awarded the *Best Practice in Energy Efficiency 2015* label and were nominated for the German Energy Agency's international Energy Efficiency Award 2015.

Other examples of increases in energy efficiency in Hamburg include equipping the cooling water supply system with frequency-controlled pumps and optimizing the compressed air network. There are other examples, for instance at Aurubis in Stolberg and at Deutsche Giessdraht in Emmerich, where energy has also been reduced with the air compressors' waste heat use, modern control technology in the production facilities and the use of LED lighting.

With the facility to extract precious metals from anode slimes at the Hamburg site, Aurubis is able to process all of the precious metal-bearing anode slimes from the Group optimally and to recover high-purity silver and fine gold. The capacity was expanded and the process technology was improved during the reporting period. The anode slime is now dried in a one-step filter press process, which saves up to 35% of the necessary energy and reduces  $\mathrm{CO}_2$  emissions by about 460 t per year.

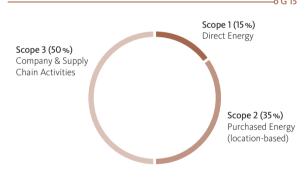
The work processes in the basic materials industry always include a physically defined volume of process-related raw material or energy emissions that can't be reduced. Because of this and other reasons, emissions trading with artificial tightening and reduction of the allocated CO<sub>2</sub> certificates impacts competitiveness. In addition, it must be ensured that future CO<sub>2</sub> potential, such as industrial waste heat recovery for the district heat supply, generates additional allocations. To protect European industry from competitive disadvantages due to local additional CO<sub>2</sub> costs, so-called carbon leakage sectors were established, including the copper industry. The announced readjustments of emissions trading nevertheless affect our ability to plan. The EU reacted and permitted a limited compensation of electricity price increases related to CO<sub>2</sub> emissions trading. A corresponding funding guideline was passed for Germany, the Netherlands and Belgium. Similar guidelines are being planned in Finland and discussed in Bulgaria. However, the full compensation in the copper industry that was agreed on for Germany will only be about 50% effective.

Energy consumption is the main source of  $CO_2$  emissions in the Aurubis Group. The biggest  $CO_2$  emitters in the Group are the German sites in Hamburg and Lünen. Currently, Aurubis systematically records the direct  $CO_2$  emissions at the sites as well as the energy-related indirect emissions, for example from purchased electricity. We were able to further reduce emissions in the reporting period. Direct and indirect  $CO_2$  emissions within the Group amounted to about

1.9 million t of  $CO_2$  during fiscal year 2014/15. At 0.20 t of  $CO_2$  per ton of copper output, specific emissions from fuels in copper production are at a low level. Product-related emissions have even been reduced by 36% since 2000.

There isn't a complete recording system for the rest of the energy-related emissions yet, for example those resulting from the transport of our products and purchased preliminary services. However, we carried out the first qualified estimate in 2015 as part of the Carbon Disclosure Project.

CO<sub>2</sub> emissions in the Aurubis Group – estimate



Aurubis reports the emissions that are directly produced from burning fuels in its own facilities (Scope 1) and emissions that are connected to purchased energy, e.g. electricity (Scope 2). Furthermore, partially aggregated data was used to estimate emissions from services performed by third parties, for example transport, and purchased preliminary services (Scope 3).

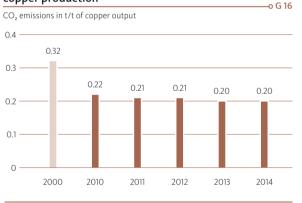
The estimate indicates that at least half of the  $\rm CO_2$  emissions arise from services performed by third parties. Of these Scope 3 emissions, about 70% originate from the activities of mining companies. The transport of the materials to and from our sites causes about 10% in each direction. Smaller variables in this case include emissions that arise from our investments in new or modernized facilities as well as from the production of our fuel-related and energy-related input materials that are not covered by Scope 1 and 2. Another small-scale factor is employee commuting.

Aurubis Hamburg pledged to reduce an additional 12,000 t of CO<sub>2</sub> per year as part of the Hamburg climate protection

concept. This also contributes to the group-wide climate protection target – to reduce CO<sub>2</sub> emissions by 100,000 t of CO<sub>2</sub> by 2018 through energy efficiency projects and internal electricity production.

Over 100,000 t of CO<sub>2</sub> per year was reduced in the Hamburg plant through heat extraction for the district heating supply. Initiated by Hamburg's mayor, Olaf Scholz, an official working group led by Aurubis assists in the process of the technical and economic feasibility analysis.

Fuel-related CO<sub>2</sub> emissions in Aurubis Group copper production



### **Emissions**

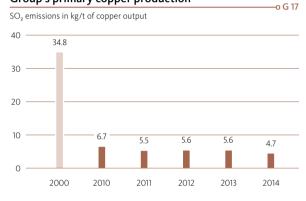
Apart from copper and iron, sulfur is one of the main components of the copper concentrates used as input material. The gaseous sulfur dioxide produced when concentrates are smelted is converted into sulfuric acid in the sulfuric acid plant using the modern double catalysis process.

When compared internationally, Aurubis is a forerunner in reducing sulfur dioxide emissions: Emissions per ton of copper output have been reduced by 86% since 2000.

The construction of the new off-gas treatment plant in Bulgaria makes a considerable contribution to environmental protection. It utilizes a modern procedure, a technology called Sulfacid, which is unique for Bulgaria and for the entire copper smelting industry. This facility also helps reduce so-called fugitive emissions even further.

Ozone-depleting substances don't play a significant role in copper production.

Specific sulfuric dioxide emissions in the Aurubis Group's primary copper production



Dust emissions that arise in copper production can contain metals and metal compounds. The consistent use of the best available plant techniques at a very high level of environmental protection has led to a 96% decline in specific dust emissions in primary and secondary copper production since 2000.

One of the main focuses in the 1990s was the use of state-of-the-art filter technologies for all directed emission sources, i.e. chimneys. Today, projects to reduce fugitive emissions have high priority. Fugitive emissions can arise around hall openings, e.g. gates, doors and ridge turrets,

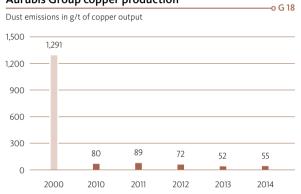
and when storing and shipping materials. We have already achieved a great deal in reducing directed dust emissions with technical measures and have nearly exhausted the technical possibilities. Further developments related to non-directed emissions pose additional challenges for the future. In particular, it will be necessary to develop innovative technologies and break new technical ground.

In 2012 about € 7.5 million was invested in connecting a new crusher and conveyor to the warehouse in secondary copper production in Hamburg. This achieved the target of reducing fugitive emissions by more than 70% in this area. In addition, a sprinkler system was installed in the area between the crusher and the entrance to the bulk material warehouse in the following year, which will reduce fugitive emissions even further, especially in the case of dry weather.

During the reporting period, we carried out a feasibility study about closing the ridge turrets in the Hamburg primary smelter to reduce fugitive emissions in the future. In the course of the investigations, potential for improving the air flow within the hall was also identified. The concept has already been agreed on with the responsible authorities. The first measures have been implemented and their effectiveness has been demonstrated in measuring campaigns.

Furthermore, we reduce our sites' noise emissions. We regularly take measurements at all production sites and evaluate the effectiveness of measures implemented for this purpose.

# Successful reduction of dust emissions in Aurubis Group copper production



# Water use and water pollution control

We use water for the production processes and for cooling purposes. The sparing use of water resources is one of our corporate environmental protection targets. Apart from conserving water, treating wastewater and thus avoiding environmental pollution is one of our fundamental responsibilities in industrial environmental protection since water may contain metals after use.

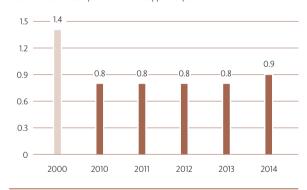
Aurubis used a total of 72.2 million m³ of water in 2013 and 77.2 million m³ in 2014 in copper production, mainly indirectly as cooling water. We use river water wherever possible to conserve the natural potable water resources. The absolute potable water consumption in 2013 and 2014 was 1.2 million m³. We have reduced our specific potable water consumption in copper production by 39 % since 2000. We achieved this reduction with more efficient facilities and the use of rainwater. We have also further reduced metal emissions to water to 1.3 g per ton of copper output.

In November 2014, a new rainwater treatment plant was commissioned at our Bulgarian site in Pirdop. With a capacity of 250 m³/h and multiple catch basins, this plant cleans the rain and drainage water from the 4 km² premises to reduce metal emissions to water. Where possible, some of the cleaned water is used in the production processes. This reduces potable water consumption and helps the environment. State-of-the-art technologies are used in the facility, in which we invested about € 6.3 million.

# Potable water consumption in Aurubis Group copper production

Potable water consumption in m³/t of copper output

—о G 19



To reduce the use of city water in Lünen, a facility for rain-water retention, preparation and utilization was commissioned in 2014. The retained water is already being used as process water. The next step will be to review which other possibilities there are to use the water in the site's different processes. Later, the process wastewater, sanitary water and precipitation will be fully separated in the course of the project. There are also plans to modernize the site's sewer system further.

# Specific metal emissions to water in Aurubis Group copper production



# Waste

Effective waste management is one of the central pillars of industrial environmental protection for a resource-intensive company such as Aurubis.

This excludes slag that is used as landfill building material, as well as fayalite. A total of about 80,000 t of *waste* accumulated in Aurubis' copper production processes in 2014. Roughly one-third of this amount, 29,000 t, originated from various construction projects. A total of 41% of the remaining production-related waste – 51,000 t overall, comprising 37,000 t classified as hazardous waste and 14,000 t classified as non-hazardous waste – was recycled. Furthermore, a fine-grained material called fayalite is produced at the Pirdop site from the flotation process used there to recover the copper contained in the copper smelter slag. Fayalite is used as an additive for cement production, for example. Moreover, we are investigating possibilities to reuse fayalite and are working on marketing it more strongly.

When transporting our products, we generally use pallets that are used to avoid waste in the cycle. We select recyclable material for packaging foil and straps.

### **Biodiversity**

As a matter of principle, we do not use any land in protected areas with high biodiversity. Furthermore, we conserve the habitats of animals and plants with our water preparation and waste treatment measures. We protect the soil at our sites, for instance with technical measures to combat the discharge of substances and liquids that are harmful to water. Due to long-time industrial use, soil contamination typical for industrial areas can appear on our plant premises, which we prevent from mobilizing and spreading with technical measures. If additional areas on our plant premises are used, we choose those that naturally exhibit limited biodiversity.

We maintain green areas on our plant grounds and develop them if possible. With campaigns like "Let's Make Our Plant Greener" in Hamburg, in which we planted trees and bushes on about 5,000 m² of the plant premises, and the "Green Project" campaign in Pirdop, in which we contributed to reforestation in the region, we also improve the habitats of animal and plant species.

# Transport and employee mobility

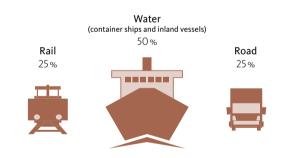
Our primary raw material suppliers, chiefly from South America and Asia, process mined copper ore with a copper content of 0.5 to 4% into copper concentrate, mainly on site. Transport routes are therefore insignificant for the ore. The concentrate, which has a typical copper content of up to 30%, is then shipped to Europe. We make sure that our logistics partners only use ships that fulfill the highest

safety standards and are classified by a reputable classifier. In Europe, we use inland vessels or trains for transport. We source about 90% of our secondary raw materials from Europe.

We select our transport service providers using established criteria. Economic and scheduling aspects take priority. Where possible, Aurubis selects the most environmentally friendly method of transport. Waterways are preferred over railways, and roads are the last alternative we choose. As a result of this process, about 50% of the freight/transport services for which we are responsible take place by rail, 25% by water and 25% by road. Air freight is only used in exceptional cases, for instance to avoid plant downtime.

Transportation mix in 2015

o G 21
Transports from Aurubis (group-wide)



Another area in which we try to minimize transports is interplant traffic. We therefore continuously review how loads and return trips can be optimized. Furthermore, we maintain a dialogue with suppliers and customers to tap additional logistics synergies.

Our vehicle fleet includes trucks, ground conveyors, construction machines and forklifts. Diesel engines and ancillary units are being optimized in terms of energy as part of the tightening of international exhaust regulations in 2014. Moreover, existing forklifts in Hamburg are currently being switched to lower-consumption drive concepts. The Avellino site has already reduced fuel consumption by 20% compared to 2012 by replacing the forklift fleet.

In September 2012, the "Partnership for Air Quality and Low-emission Mobility" initiated by the city of Hamburg was signed by Aurubis and 11 other companies. The objective of the partnership is to reduce nitrogen dioxide emissions, which are caused by private transport in particular.

As part of the air quality partnership, an action week was held with the employees at the Hamburg site, during which a number of ideas were developed and steps were coordinated. The newly developed concepts whose implementation is being reviewed include an offer for e-bike leasing, the construction of a bike shelter at the nearby Veddel train station and better access to the plant with public transportation options or a company bus shuttle.

# Human Resources

Qualified, dedicated and satisfied employees are the basis of our success. In line with our corporate values, we promote a corporate culture of appreciation, performance, integrity, mutability and responsibility.

# Our approach

We maintain an open and trusting dialogue with our 6,300 employees worldwide. At the same time, we call on them to orient their work to the group-wide corporate values and our Code of Conduct. With these two documents, we commit to adhering to fundamental work and social standards. We view ourselves as a responsible employer and maintain good relationships with employee representatives.

Our human resources strategy supports the successful implementation of the Aurubis strategy. We therefore lay the foundation for successfully confronting all of the challenges of human resources policy. For example, these include a lack of qualified workers due to the demographic shift as well as the search for suitable apprentices, which is becoming more and more difficult. The HR strategy is applied across the Group and is implemented in modern management work. The overarching goal is to provide qualifications to our employees and to promote their development – to ensure mutual success and motivation. The implementation of the HR strategy focuses on strategically aligned HR instruments and services as well as individual development tools for our employees.

A new organizational structure was implemented at Aurubis in 2015 which is based on two segments, primary copper and copper products. We are therefore orienting ourselves more strongly to our customers' requirements, strategically embedding the increasing "closing the loop" projects better. In this context, the HR Department also revised the compensation system for managers on the basis of success indicators and target agreements.

Furthermore, as part of the targeted support and development for managers and experts, we established assessment centers that are used to fill key positions and to identify talents.

The production of copper strip at the Swedish site in Finspång ceased on September 30, 2013 and was relocated to Buffalo, USA and Zutphen, the Netherlands. A total of 190 employees were affected by the closure of the plant. In order to support them as well as possible, a social plan was constructively developed together with the unions and a number of activities were initiated, for example applicant training, outplacement, production bonuses, personal support in the professional orientation process, marketing for the Zutphen and Buffalo sites as potential job locations and contact with companies to transfer our employees to them. Of the 190 former Finspång employees, 40 are now in retirement or pre-retirement, about 90 have a new job and three switched to the Zutphen site. About Thirty are employed via temporary contracts and 20 to 30 are still currently without employment. Thirty employees from Finspång were on site in Zutphen for three to six months to support the move and train colleagues. Three employees from Finspång provided support in Buffalo over the course of six months as well.

About 90 new staff were employed at the Zutphen site in order to operate the new facilities of the copper line from Sweden in addition to the brass line; about 20 new employees were added at the Buffalo site.

# Responsibility and organization

All group-wide activities related to our employees are managed at group level by the HR Corporate division, which is particularly involved with implementing and monitoring strategic HR instruments, supporting the internationalization of the management, assisting with change processes and overseeing upper management individually in the Group. Direct supervisors, the management and the local HR

Read more about "closing the loop" on **pages 12** and **13** 



| EUROPE   |           |    |   |  | i   | <u>"</u> |
|--|-----------|----|---|--|-----|----------|
| Hamburg, headquarters (DE)                       | <u></u> © |    |   | D  | 253 | 2,043    |
| Hamburg, E.R.N. (DE)                             | <u> </u>  |    |   |  | 0   | 11       |
| Hamburg, Peute Baustoff (DE)                     |           | *  |   | P  | 4   | 8        |
| Lünen (DE)                                       | <u>©</u>  | 1  | * |  | 46  | 547      |
| Fehrbellin, CABLO (DE)                           | <u> </u>  |    |   |  | 4   | 42       |
| Emmerich, Deutsche Giessdraht (DE) <sup>1)</sup> |           |    |   |  | 11  | 111      |
| Röthenbach, RETORTE (DE)                         |           |    |   | <b>?</b>   | 11  | 30       |
| Stolberg (DE) <sup>2)</sup>                      | <u></u>   | @  |   |  | 35  | 366      |
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| Pori (FI)  | <u></u>   |    |   | \$   | 38  | 175      |
| Västerås (sE)                                    |           |    |   | <i>&gt;</i>  | 3   | 11_      |
| Finspång (SE)                                    | <u>©</u>  | () |   |  | 1   | 8        |
| Zutphen (NL)                                     |           | () |   |  | 19  | 311      |
| Brussels (BE)                                    |           |    |   | 8  | 12  | 14       |
| Olen (BE)  |           |    | @ |  | 49  | 458      |
| Yverdon-les-Bains (CH)                           |           |    |   | P  | 0   | 2        |
| Smethwick/Brimingham (UK)                        |           |    |   |  | 2   | 25       |
| Avellino (IT)                                    |           |    |   |  | 5   | 101_     |
| Mortara (IT)                                     |           |    |   | <br><u> </u>   | 8   | 16       |
| Lyon/Septème (FR)                                |           |    |   |  | 0   | 3        |
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| St. Petersburg (RU)  |          |          |            | <i>&gt;</i>  | 2                          | 0                     |
| Dolný Kubín (sκ)   |          |          | <b>©</b>   | \$   | 4                          | 11                    |
| Pirdop (BG)  | <u> </u> | <u> </u> |            | 8  | 174                        | 651                   |
| Istanbul (TR)  |          |          |            | 1  | 0                          | 2                     |
| Total employees  |          |          |            |  |                            | 5,645                 |
| USA  |          |          |            |  |                            |                       |
| Chicago (usa)  |          |          |            | \$   | 5                          | 1                     |
| Buffalo (USA)  | (        | <u> </u> |            | \$   | 57                         | 590                   |
| Total employees  |          |          |            |  |                            | 653                   |
| ASIA   |          |          |            |  |                            |                       |
| Dubai (VAE)  |          |          |            | <i></i>  | 1                          | 2                     |
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# **Raw Materials**

Concentrates and recycling materials are the raw materials from which copper is produced.





# **Products**

The copper is processed into products. Some products are already the result of copper production.







Other metals Specialty wire,

drawn products

Precious metals

Nickel sulfate





Shapes





Strip/foil

# Sales and distribution network

An international sales and distribution network markets our products.



# Slitting centers

Service centers located near our customers slit strip to the desired dimensions.



<sup>&</sup>lt;sup>2)</sup> Schwermetall: not consolidated, Stolberg, (DE) 150 employees. Status: September 30, 2015.

departments at the sites are responsible for employees' supervision, performance assessments and development planning. Their on-site HR work is oriented towards the standards of the central HR division. In the course of the reorientation of the HR division, a new organization was implemented in October 2014 that ensures stronger cooperation between the central HR division and the local HR departments. The strategic HR topics are pushed forward across the Group thanks to the close connection between the local entities and the central HR division. This is especially true for the areas of leadership, talent development, international mobility, job rotation and organizational development. In this way, the same standards apply to the entire Group.

A routine discussion takes place between HR Corporate, local HR management and the Works Council when it comes to especially significant topics such as demographic change.

# **Employees in figures**

A total of 334 new employees and apprentices were hired in fiscal year 2014/15 (59 women and 275 men). Overall, the Group employs 6,321 personnel (754 women and 5,567 men). At 96% (excluding apprentices), the proportion of staff with unlimited contracts is very high. 98% of our employees work full-time. The fluctuation rate was 5.9% overall in fiscal year 2014/15. Of this number, the employer side was responsible for 1.6%, the employee side was responsible for 1.8% and retirement from the company accounted for 2.5%. The

average age of our employees is 43.6 years and the average period of employment is about 13 years.

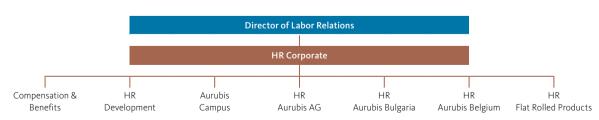
Because we have to be able to react flexibly to significant peak production times and other work periods, work contracts via third parties are issued and temporary workers are utilized (pursuant to the Temporary Employment Act) in addition to permanent contracts. In fiscal year 2014/15 about 250 temporary workers were employed across the Group on a monthly average. We maintain a dialogue with the social partners on this topic – including with regards to the public discussion on temporary employment. In the process, we review whether our current approach fits with changing social standards and see how it can be optimized. This includes improving working conditions by adjusting contracts and including temporary workers in company arrangements. We contractually require companies that work for us to follow our policies. As a matter of course, we only work with reputable, certified service providers when it comes to work contracts and temporary workers.

# Apprenticeships and continuing education

High-quality training and targeted investments in employee qualifications secure our company's long-term success. Apprenticeships and continuing education are therefore central components of our HR policy. The HR division is responsible for strategic measures in training and continuing education. The sites implement the measures in the next step.

# **Human Resources in the Group**





Within this framework, a comprehensive re-orientation of training and qualifications took place on October 1, 2015 in close cooperation with the Research, Development and Innovation Department. The spectrum extends from the German dual vocational education system to qualifications for university graduates. The goal is to create an Aurubis Campus in connection with a new R&D Technology Center as a center for training and qualifications in the Group. In addition, we want to expand our international cooperation with colleges and universities with a view to recruitment, qualification measures and innovations in the Group.

# Apprenticeships and young employees

Competition for talented and well qualified employees is increasing due to the demographic shift. This is why we provide training ourselves and rely on a holistic approach for training and qualifications, from the dual apprenticeship program to further development of our specialists and university graduates. Together with the Research, Development and Innovation Department, we are establishing a dynamic learning culture and are concentrating on future topics, for example Industry 4.0. In this area, too, our cooperation with universities and the development of an international education network in the Aurubis Group is becoming especially important. We present our company at corporate and career fairs to raise interest among graduates and young potential employees. The objective is to raise interest and recruit young people for technical vocations in the so-called MINT subjects - mathematics, informatics, natural sciences and technology.

Due to our high apprenticeship and retention rate (apprenticeship rate at the German sites in 2014/15 excluding Schwermetall: 7.8%), we ensure that we have a sufficient number of qualified employees. During the reporting period, 101 young people completed an apprenticeship, 97 of whom were taken on afterward as employees in Hamburg, Lünen, Bulgaria and Stolberg. We are pleased that we have also recorded an increase in female apprentices in industrial/technical fields. To improve the balance of work and family and to reduce the

multiple burdens that young mothers sometimes have during their training due to a lack of child care options, we offer our female apprentices with children part-time apprenticeships or enable an additional child care period with a corresponding extension of the apprenticeship period. We also provide e-learning modules that can be completed at work or at home.

We also respond to the demographic shift with our active personnel recruitment. Of the 28 participants who have so far completed our internal program for talented young employees, EXPLORE!, over 90 % of the graduates have taken on new positions in the meantime. We will continue to pursue this path.

In order to attract apprentices and create prospects for disadvantaged youths, we carry out a Practical Learning Day (for eighth graders) and the apprenticeship preparation project "AV Plus" in Hamburg. "AV 10-Plus" focuses on the transition from school to work. The project includes a oneyear internship for young people who have their first school certificate. They receive training in the plant in parallel to school lessons in German, math and English. In the apprenticeship year 2015/16, 12 young people are participating in the AV 10-Plus project. Since 2007, a total of 100 interns (20 girls and 80 boys) have taken part in the AV 10-Plus project (since 2015) and in the forerunner project 9-Plus. Overall, 62 of the interns have had an immigrant background. Aurubis has taken on 88% of the project graduates as apprentices. A total of 95% of the participants who successfully passed the AV test received an apprenticeship at Aurubis or another company or are now receiving continued schooling. The later final exam results following their vocational apprenticeships have generally been above-average. Two former participants are studying in the meantime.

A total of 450 young people visited our fourth career information day "Your Future Starts Here" in April 2015, collecting information about apprenticeships and career opportunities at Aurubis. Our sites in Lünen and Stolberg participated once

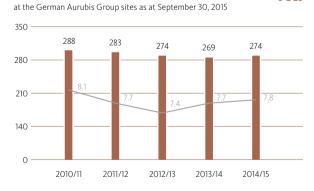


As a Fair Company, Aurubis has pledged to pay students, train them and provide them with offers that serve the purpose of occupational orientation. Adherence to these principles is monitored by the Fair Company Initiative. www.faircompany.de again in the "Night of Apprenticeships". Many interested young people were able to receive information about our trades and apprenticeship options from the exhibits and information stands and to participate in plant tours.

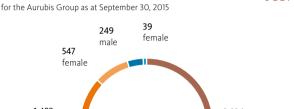
Our activities in university marketing for technical and commercial professions were focused and expanded, and the cooperation projects with our partner universities continue to be intensive. Moreover, we increased the number of internships again during the reporting period, so we were able to provide about 50 internships during the year to Hamburg students alone. The offerings for young potential employees are rounded off with scholarships and supervised thesis papers.

It is important to us that apprentices already be able to contribute to the agreed measures and targets of the Aurubis Sustainability Strategy. As a result, sustainability will become a fixed element of the apprenticeship program. Hamburg apprentices kicked this off in 2015 with a *Sustainability Week*. As part of the Sustainability Week, they analyzed the path of copper at Aurubis under the aspect of sustainability and presented the results of their work during an organized event.

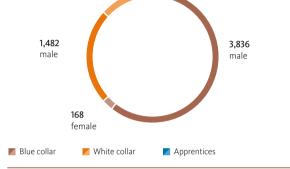








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# Employee development and continuing education

Our employees' development and continuing education are an investment in the future of our Group. We secure the foundation of our company's success by maintaining our staff's employability, among other things. During the reporting period, we harmonized the local qualification offers so that all employees have the opportunity to participate in the programs offered internally based on their goals. The program focuses on leadership as well as personal and business skills. Furthermore, extensive specialized qualification measures are offered at site level.

Every Aurubis Group employee has an annual talk with his or her manager. Apart from a review and a performance assessment, the talk helps the participants identify development potential, provide feedback and coordinate targets. We take the results of the employee talks into consideration in our annual personnel development planning and the corresponding budgets.

We evaluate our managers based on their individually agreed targets with so-called Performance Management. To support our managers, the professional development programs were expanded to specific target groups up to the foreman level.

Read more about the Sustainability Week on page 22

During the reporting period, we successfully introduced Leadership Feedback in the form of a structured dialogue with an intensive exchange between the respective supervisor and his or her employees. Because of the positive experiences with this instrument, Leadership Feedback will be continued for the next management level across the Group as well.

Furthermore, we initiated a mentoring initiative for managers. The mentors and mentees both benefit from this professional exchange of knowledge and experience. The mentoring initiative serves to develop the participants' personal and professional skills, utilizing the experience and expertise within the company. The networking of managers in the Group also strengthens corporate identity.

# Diversity and equal opportunity

The diversity of the people who work for us is an enrichment because it reinforces the entire company's innovation and problem-solving expertise. As a result, we want to be an attractive employer for every individual – regardless of their background, gender, religion or sexual orientation. The Group Code of Conduct and our corporate values serve as the basis for respectful cooperation. Open positions are filled exclusively according to the applicant's qualifications and the requirements of the position.

We provide different contact points for claims of discrimination, investigate any reported suspicions individually and clarify them. If we determine that there are violations of the prohibition of discrimination, we employ labor law measures such as warnings or dismissal. Those who are affected can contact the Compliance Officer, HR or the Works Councils.

Aurubis' Code of Conduct establishes the principle of equal opportunities for women and men. Within the scope of the German law for equal participation of men and women in management positions in the private sector and in public service, targets have been set for increasing the proportion of women in the first two management levels under the Executive Board. These targets each amount to 20% and

generally correspond to the current situation. Unfortunately, the number of qualified female managers is still low, especially in the key technical areas of our industry. Overall, the percentage of female employees rose slightly compared to the previous year (11.6%) and is now 11.9% across the Group. The proportion of females in the first two management levels at Aurubis AG is higher than the overall average: The first level currently includes 30 managers, six of whom are women. This is a proportion of 20%. The second level comprises another 46 managers, eight of whom are women, for a proportion of 17.4%.

Aurubis continues to pursue the goal of raising interest among female applicants for the work in our Group, especially in our university marketing but also in our cooperation with schools. Because of our industry – smelting and production – many of our jobs are associated with high physical demands and shift work. The result is that women generally tend to apply for these jobs less frequently and the number of female applicants in technical fields relevant to us remains low.

At the *Lünen* site, we support future female managers as part of an EU project in the Unna region. During this project, targets and measures were arranged to increase the number of female employees until 2020.

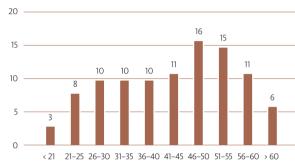
Aurubis contributes to the integration of severely disabled individuals and their employment. The proportion of severely disabled individuals in the Group is 6.5% and thus exceeds the statutory quota of 5%.

Aurubis Lünen was distinguished as a familyfriendly company in the Unna region of Germany with the prize "Pluspunkt Familie" by the Alliance for Families in 2015.

Read more about our employees starting on page 53 of the Annual

# for the Aurubis Group as at September 30, 2015 (in %)

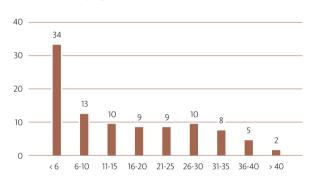
Age structure



# Length of employment

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for the Aurubis Group in years as at September 30, 2015 (in %)



-0 G 25

# Work-life balance

Work isn't everything in life: Only those who have enough time for family, friends and personal interests will remain motivated over the long term. A balance between work and free time is therefore very important. Moreover, as a family-friendly company, we are an attractive employer. We assist our employees in coordinating child care, provide offers for better compatibility between work and caring for family members and strive to make flexible working time arrangements if desired, as long as this is consistent with the individual work area.

Since 2012, the Aurubis Family Service has helped all of the employees at the German sites to better combine work and family in a practical way. The offer includes the arrangement of child care options and advice on financing nursing care and applying for nursing care insurance. The Family Service is well received, and the vacation program was also used for the first time.

The Lünen site is certified as a family-friendly company.

# Co-determination and employee dialogue

Good cooperation between our employees and the company management contributes to the success of our Group. Openness, honesty and trust are the main components of this cooperation, as is routine, prompt communication to all employees about current developments.

We are committed to co-determination because we know that we can only be successful with employees who stand behind our decisions. On the corporate level, the Executive Board and Supervisory Board, in which the staff is represented, work closely together as the highest governing bodies. On the plant level, the employees' interests at all of the sites are represented by the Works Councils/unions according to country-specific regulations. An elected European Works Council has been in place since 2009 and includes all of the European sites in the meantime.

One important feedback instrument for us is the group-wide employee survey, which was last carried out in 2013. With a participation rate of 67.5%, more than two-thirds of all employees took part and thus contributed to a solid basis of data for meaningful results. The majority of the employees are satisfied with their jobs overall, trust the Aurubis strategy, have a positive stance towards change and feel that they are treated fairly on the whole. On the other hand, there are also several weaknesses that we are working on.

They revolve around issues related to the topics of leadership, attitudes towards new ideas and the flow of information. Measures were introduced at all of the sites to make improvements in these areas.

# Compensation and benefits

Competitive salaries independent of gender, which are oriented to performance and qualifications, and comprehensive social services enhance our attractiveness as an employer – in the recruitment process and with our employees. Furthermore, they enhance employee motivation. A collective agreement related to working life and demographic change applies to Aurubis AG and includes a variety of implementation activities.

Extensive legal regulations are applied when it comes to social safeguards because our sites are mainly located in Europe and the US. Furthermore, the valid wage agreements and company agreements ensure minimum standards.

In addition to the base salary, we also offer performance-related components and various additional company benefits as performance incentives. Performance and success-oriented compensation is a central element of the remuneration system. Additional benefits can amount to up to 8% of the salary. The performance of the individual is always viewed in connection with the performance of the team, the department or the production sector.

All employees in Hamburg and Lünen have additional disability insurance, and all employees with an unlimited contract have a company pension. The options of a pension plan through the Pension Fund of the Chemical Industry and a long-term working hours account are becoming increasingly popular. More than 90 % of eligible employees under the wage agreement take advantage of the pension allowance offered. The long-term working hours account agreed on with the employee representatives has been introduced at all of the larger German sites.

Once again, we gave staff in Germany the opportunity to purchase shares at a discount during fiscal years 2013/14 and 2014/15. This offer was taken up yet again. In fiscal year 2014/15, a total of 1,470 employees (1,612 in the previous year) purchased 28,670 shares (previous year: 31,270). The decrease is a result of the Aurubis share price, which has increased significantly in the meantime.

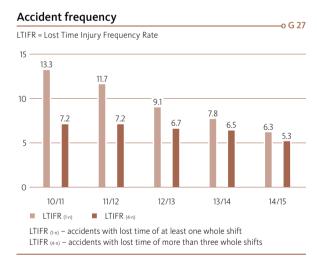
Aurubis has a uniform compensation system for its management. This compensation system is based on an analytical job evaluation, clearly established income brackets and a target bonus model with defined levels of performance measurement and weighting. These factors allow our managers to assess what performance is required on the Group level, in the different departments and on an individual level and how they are evaluated. During the past fiscal year, the structure of the target base model was adjusted, replacing the performance measurement at the Business Unit level in particular with a stronger results-focused orientation to success indicators starting in fiscal year 2015/16. In the course of this change, the topic of occupational safety was also established as a key component of the variable compensation for managers in the Group. Fair compensation that corresponds to performance is a matter of course for Aurubis. This is based on achievement and qualifications, thus ruling out any gender-specific discrepancies.

# Occupational safety and health

It is a matter of principle for us to maintain our employees' productivity and to protect them from accidents and illness. Accordingly, we create a work environment that is as safe as possible. We don't distinguish between our own employees, external employees or visitors in this respect. We comply with all of the locally applicable legal stipulations. In many cases, our internal standards extend beyond these legal requirements. At the same time, this helps us avoid economic damages that arise when employees are absent due to accidents or illness.

The non-work-related illness rate in the Group was 5.11% in fiscal year 2013/14 and 5.09% in fiscal year 2014/15.

The Corporate Occupational Health and Safety Department (C-OHS) manages occupational safety and health in the Group using a management system. The individual sites are functionally managed in the form of a moderated network. In addition to a central, binding policy, C-OHS establishes minimum standards regarding procedural instructions across the Group. These are implemented in detail at the sites. The responsibility rests with the site managers. C-OHS and the sites discuss with one another within the network, as do the sites among one another.



It is important to us that we involve employees and their representatives at all levels and utilize their experiences. In the past, safety steering committees were installed for this purpose at the Group and site levels. Each site has one of these committees, which are also included in the Corporate Occupational Health and Safety Policy. The committee representatives represent the entire staff.

With our comprehensive risk management, we recognize and assess hazards and improve occupational safety and health on this basis. Process safety analyses, risk assessments, work area reviews – e.g. regarding noise or hazardous substances – or related analyses of process disruptions help us understand and control potential hazards. To ensure that our employees can work under the intended conditions, we carry out health check-ups in the hiring process, routine medical screenings and evaluations of potential effects. Training and safety talks guarantee that new information is used safely in practice and help sensitize employees to the topic of occupational safety at the same time.

Protecting our employees' health is important to us. This is especially true because we utilize materials in our production processes that can influence health. New legal regulations and limit values have been developed due to new scientific and medical insights. This applies to the level of lead that can be present in an employee's bloodstream, for example. The limit value was reduced in the past from 700 µg/l of blood to 400 µg/l. We achieved this level with process changes and hygienic measures, for instance with newly constructed social rooms: Today, no employee exceeds the level of 400  $\mu$ g/l. As a member of the ILA (International Lead Association), we communicate openly with other companies about this topic to continue improving this area. The members of the ILA entered into a voluntary commitment to ensure that no employee in the participating companies has a lead level of more than 300 µg/l in their blood by the end of 2016.

Furthermore, we make a targeted contribution to our employees' preventive health care with a number of health promotion programs at the individual sites. Our offerings extend from flu vaccinations to addiction prevention and treatment as well as intensive training for the stomach and

back muscles based on analyses. These also include the preventive prostate and skin cancer screenings; moreover, in 2015 the employees were able to participate in a program for colon cancer prevention over a period of four months. The company health management project started in 2013 is now an established component of the plant strategy in the meantime. Two employees take care of the planning and implementation of suitable measures, utilizing the expertise of internal and external specialists in the process, for example that of the company doctor. In this way, the topic of health management will be integrated in the development of leadership skills among our company's management in 2016. In addition, several health promotion measures are planned to raise awareness of back health among our employees and to provide assistance in this area. Furthermore, work is being carried out on several company agreements relating to better work-life balance, including topics such as a more flexible flextime model, working at home and rules regarding the use of cell phones and e-mail during and outside of working hours.

Our work in preventive health management also includes our participation in a study by the ZEIT-Stiftung Ebelin und Gerd Bucerius, the Hamburg Chamber of Commerce and the German Statutory Accident Insurance. Under the title "New Paths to 67 – Healthy and Productive at Work", which was initiated by former chancellor Helmut Schmidt, this study aimed to find new ways for employees to stay healthy and productive until they reach retirement age. The result was a set of guidelines for supervisors and employees that is to be applied in the company.

# Vision Zero

Our objective is to reduce work-related accidents, injuries and illnesses to zero. As a member of the "German Zero Accident Forum", we discuss incidents and improvement approaches with other members of the industry with the goal of learning from one another through practical examples. In order to come closer to this "Vision Zero", we set an intermediate target for the year 2022 in 2012: a maximum LTIFR  $_{(1-n)}$  of 3.0. As part of the Sustainability Strategy, we derived an LTIFR  $_{(1-n)}$  of less than or equal to 4.3 from this as a milestone for 2018. On this basis, each site is developing individual strategies with the participation of managers and employee representatives. The strategies will be monitored regularly and adjusted as needed. With an LTIFR  $_{(1-n)}$  of 6.3 as of September 30, 2015, we came one step closer to these goals.

In the past few fiscal years, the positive development in the area of industrial accidents has continued uninterrupted. However, this positive trend was overshadowed by a fatal work accident on October 1, 2015: An employee of an external company was hit by a forklift and died at the scene of the accident.



# Social Commitment

Social commitment is a fixed component of our company identity. We are aware of the responsibility we assume with the business activities at our sites: as an employer, as a business partner and as a neighbor.

# Our approach

Our involvement follows a clear strategy. We take on the responsibility that arises due to our business activities and want to be an attractive employer. It is important to us that we stay focused on our core business in everything we do. This is true with regards to the content of our actual business activities as well as to our involvement in the neighborhoods surrounding our sites. We are familiar with these areas and can achieve a great deal in cooperation with our stakeholders. At the same time, this allows us to strengthen our networks on site. Ideally, we can also utilize our copper expertise, for example when it comes to restoring cultural monuments or supporting the arts. In this way, we are also able to promote copper as a raw material as well as its impressive features – for instance its good conductivity. We pursue four objectives with our activities:

- We want to be viewed as a responsible and committed company.
- » We want to motivate our employees.
- We want to raise interest for our company and our work, attracting qualified young employees.
- We want to be a good neighbor and increase awareness of Aurubis at the sites.

Read more about our social commitment on pages 19 to 21

Read more about Corporate

Communications & External Affairs

(CCEA) on page 27

In our everyday work, our *commitment* is evident in the financial and logistical support of social, ecological and cultural projects. In the process, we involve the people at our sites in the company's success beyond the economic aspect, and we enrich daily life on site. We know that Aurubis as a company, as well as our employees, benefit from a lively environment in which everyone feels at ease.

We continue to plan our social involvement with foresight, taking a regional focus. We kept the budget at a high level during the reporting period. We therefore demonstrate that we are a reliable, predictable partner. This is important for our regional partners, who often have to think in the long term in their financial planning.

# Responsibility and organization

Social commitment is part of our company identity. Within the corporate structure, the Event & Sponsoring Department has been responsible for Aurubis' sponsoring activities since 2015. This department falls under the supervision of the Vice President *Corporate Communications & External Affairs* from an organizational perspective. The budget for our social involvement is closely coordinated with the Aurubis Executive Board.

A corresponding team made up of employees from Corporate Communications, Event Management and Sustainability Management make decisions about the sponsoring requests. To ensure especially high and sustainable added value for our company and the regions, our subsidiaries choose their projects themselves based on their experience and regional knowledge. They cover the costs with their own budgets. If sponsoring requests exceed a specified amount, the team that evaluates the sponsoring requests is included in the decision.

The sites report about their regional involvement at the annual Global Corporate Communications & External Affairs Team Meeting. This meeting includes the relevant employees from Communications, Event Management and External Affairs.

We have established criteria for the selection of projects which serve as a guide for those making the sponsoring decisions at the individual sites. We support projects that:

- » have a social and ecological focus,
- » promote culture,
- are connected to education, science and teaching,
- » promote sports and youth activities,
- » are near our sites
- and are related to copper.

#### Social efforts

Because we would like to be an active part of a thriving society, one of our goals is to help disadvantaged individuals gain new perspectives and improve their life situation. To be as effective as possible in this endeavor, we work together with local organizations directly on site. We are pleased that our employees are also actively dedicated to their regions in many ways.

### Art, culture and architecture

By supporting cultural institutions and events, art and architecture, we contribute to an appealing, varied and enduring cultural landscape. Hamburg's emigration museum "BallinStadt" and the "48h Wilhelmsburg" festival are just two of the many projects that Aurubis supported financially during the reporting period. We are involved in maintaining significant copper architecture and are pleased that this increases awareness of our product. In the past few years, all of Hamburg's main churches have received new roofs with our support. As part of this project, we recently

donated copper to renovate the approximately 700 m<sup>2</sup> roof of the two towers of the St. Petri Church in Altona.

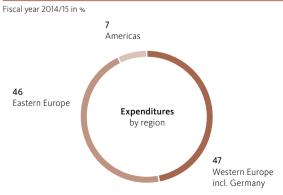
#### Supporting young people

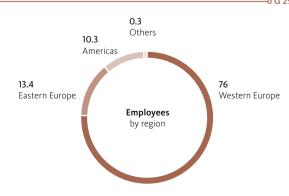
Like many other companies, we face the considerable challenge of recruiting qualified young employees, especially in technical jobs. Young people with a preliminary school certificate in particular often have difficulties when starting their careers. Furthermore, having an immigrant background makes a successful start to the world of work even more challenging. For this reason, many of our sites cooperate with schools and universities, offering internships and company tours, for example. As ambassadors of our company, employees provide exciting insights into working at Aurubis by giving talks at schools. With these activities, we hope to offer new perspectives to disadvantaged youths in particular, to ease their transition from school to work and to increase their interest in an apprenticeship or an entry-level job at Aurubis.

#### Sports sponsoring

Fairness and teamwork guide us in our daily work. With our involvement in amateur and professional sports, we extend these values beyond the boundaries of our company. We traditionally sponsor various sports clubs as well as different kinds of sports – in particular, to establish team spirit and social skills. Our largest project has been supporting the VT

## Expenditures for social commitment broken down by region $\label{eq:commitment} % \begin{center} \end{commitment} \begin{center} \end{center} \begin{center} \end{center}$

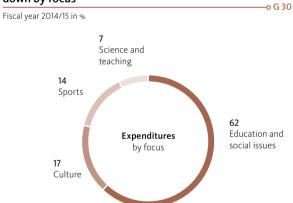




Aurubis Hamburg volleyball teams over the past several years. We continue to be the main sponsor of the club, which is named after the company. We are also assisting TV Fischbek Sportmarketing, the associated marketing company, in finding additional co-sponsors, since we decided in 2014 to end our sponsorship of professional sports in 2016. We will focus instead on supporting amateur sports and youth activities.

We of course fulfilled all of our agreements during the reporting period and will continue to do so in 2016.

# Expenditures for social commitment broken down by focus



# About This Report

(G4-18, G4-19, G4-20, G4-21, G4-22, G4-23)

This report is the fifth Aurubis AG Sustainability Report. It is oriented to the internationally recognized guidelines of the Global Reporting Initiative (GRI) G4 as well as the Mining and Metals Sector Disclosures. It is in accordance with the Core option. In order to fulfill rating agencies' and other stakeholders' need for information, we report beyond these requirements and publish a more extensive GRI Content Index.

The GRI confirmed the placement of the standard disclosures G4-17 to G4-27 in both the GRI Content Index and the report text by means of a Materiality Disclosures Service.

The report is based on the principles of Sustainability Context, Materiality, Completeness and Stakeholder Inclusiveness.

When not stated otherwise, the report relates to fiscal years 2013/14 and 2014/15 and to the entire Aurubis Group (see the map on p. 59 of the report). Activities with special relevance were included up to the editorial deadline of January 2016. The Aurubis fiscal year starts on October 1 and ends on September 30. Our Sustainability Report 2015 simultaneously serves as the Communication on Progress for the UN Global Compact (UNGC).

The key indicators are recorded at Aurubis in IT systems in the individual divisions relevant to sustainability, consolidated at the Group level where necessary and evaluated. There is no group-wide data for a few of the key indicators. This is stated for the relevant indicators. The environmental protection indicators are harmonized across all sites in all divisions. When the report mentions copper production, this refers to primary and secondary copper production at the Hamburg, Lünen, Olen and Pirdop sites. The goal is to continuously improve and expand data recording. There are comparable figures from the previous years for most of the indicators.

To determine the content of the report, the first step was to establish topics, then to prioritize them and finally to validate the completeness of these established topics. This took place in the materiality analysis (see p. 32 of the report) carried out in September and October 2015.

The male pronoun is used for better readability.

Aurubis publishes Sustainability Reports every two years. These are supplemented by environmental reports from all of the sites. Furthermore, information relevant to sustainability is published on the website throughout the year.

This report contains forward-looking statements based on current assumptions and forecasts. Various factors, risks and uncertainties could have the impact that the actual future results differ from the estimates given here.

| Material Aspect   | Internal<br>relevance | External relevance | Related GRI Aspect  |
|---|-----------------------|--------------------|---|
| Economy   |                       |                    |   |
| Economic stability  | •                     | •                  | Economic Performance  |
| Corporate governance  | •                     |                    | Customer Privacy  |
| Compliance<br>(adherence to laws,<br>anti-corruption, etc.)             | •                     | •                  | Compliance (Environmental, Society, Product Responsibility) Anti-corruption Anti-corruption Anti-competitive Behavior Human Rights (Investment, Non-discrimination, Freedom of Assocation and Collective Bargaining, Child Labor, Forced or Compulsory Labor, Security Practices, Indigenous Rights, Assessment, Supplier Human Rights Assessment, Human Rights Grievance Mechanisms) |
| Product quality   | •                     |                    | Customer Health and Safety Product and Service Labeling Materials Stewardship (Mining and Metals Sector Disclosures)  |
| People  |                       |                    |   |
| Occupational health and safety  | •                     |                    | Occupational Health and Safety  |
| Training and education  |                       | •                  | Training and Education  |
| Labor and social standards  | •                     |                    | Labor/Management Relations Freedom of Association and Collective Bargaining   |
| Work-life balance   | •                     |                    | Employment  |
| Diversity/equal opportunity   | •                     |                    | Diversity and Equal Opportunity<br>Equal Remuneration for Women and Men   |
| Adherence to environmental protection standards (at supplier companies) | •                     | •                  | Supplier Environmental Assessment   |
| Occupational safety (at supplier companies)                             | •                     | •                  | Supplier Assessment for Labor Practices   |
| Respect for human rights (at supplier companies)                        | •                     | •                  | Supplier Human Rights Assessment  |
| Anti-corruption management (at supplier companies)                      | •                     | •                  | Supplier Assessment for Impacts on Society  |
| Environment   |                       |                    |   |
| Energy  | <u> </u>              | •                  | Energy  |
| Resource efficiency/material input                                      | •                     | •                  | Materials   |
| Water   | ·•                    | •                  | Water   |
| Waste   | - <u>•</u>            |                    | Effluents and Waste   |
| Emissions to air/water/soil   | - <u>•</u>            |                    | Emissions   |
| Transport   |                       |                    | Transport   |
| Innovative production processes   | •                     | •                  | No related GRI Aspect   |
| Plant security  | <u> </u>              | •                  | No related GRI Aspect   |
| Compliance with environmental protection standards                      | •                     |                    | Compliance (Environmental category)   |
| Use of best available techniques  | •                     | •                  | No related GRI Aspect   |

-о Т 06

# GRI G4 Content Index

This Sustainability Report is oriented to the internationally recognized guidelines of the Global Reporting Initiative (GRI) G4 as well as the Mining & Metals Sector Disclosures. It has been prepared in accordance with the "Core" option. The report was submitted for the GRI Materiality Disclosures Service, and GRI confirmed the correctness of the locations of the General Standard Disclosures G4-17 to G4-27 in both the GRI Content Index and the report text.

The page numbers provided in the Reference column are related to this Sustainability Report if not otherwise specified. A reference to other publications is indicated with the following abbreviations:

AR Annual Report 2014/15 at

www.aurubis.com/annual-report2014-15

ER Environmental Report 2015 at

www.aurubis.com/environmental-report2015

ES Environmental Statement 2015 at

www.aurubis.com/environmental-statement2015



| G4 Indicator and Management Approach |   | Reference                     | Remarks          | UNGC |
|--------------------------------------|---|-------------------------------|------------------|------|
| Strategy a                           | nd Analysis   |                               |                  |      |
| G4-1                                 | Statement from the most senior decision-maker                                 | 3-5                           |                  |      |
| G4-2                                 | Key impacts, risks and opportunities  | 29, AR 89–93                  |                  |      |
| Organizati                           | ional Profile   |                               |                  |      |
| G4-3                                 | Name of the organization  |                               | Aurubis AG       |      |
| G4-4                                 | Primary brands, products and services   | K2, AR 48–49, 69              |                  |      |
| G4-5                                 | Location of organization's headquarters                                       | -                             | Hamburg, Germany |      |
| G4-6                                 | Countries with significant operations   | 59                            |                  |      |
| G4-7                                 | Nature of ownership and legal form  | AR 116                        |                  |      |
| G4-8                                 | Markets served  | K2, 38, AR 69                 |                  |      |
| G4-9                                 | Scale of the organization   | K1, 59, AR 69, 77-83, 112-113 |                  |      |
| G4-10                                | Employee structure  | K1, 59, 62                    |                  | 6    |
| G4-11                                | Employees covered by collective bargaining agreements                         |                               | 100%             | 3    |
| G4-12                                | Description of organization's supply chain                                    | 6-9, 44-45, AR 48             |                  |      |
| G4-13                                | Significant changes regarding the organization's size, structure or ownership | K2, AR 115                    |                  |      |
| G4-14                                | Precautionary approach or principle in the organization                       | 26–30                         |                  |      |
| G4-15                                | Externally developed charters, principles or other initiatives                | 6-7, 11, 15, 17               |                  |      |
| G4-16                                | Memberships of associations and advocacy organizations                        | 30                            |                  |      |
| Identified                           | Material Aspects and Boundaries   |                               |                  |      |
| G4-17                                | List of consolidated companies  | AR 194-195                    |                  |      |
| G4-18                                | Process for defining report content   | 32, 34, 71, 72                |                  |      |
| G4-19                                | Material Aspects  | 33, 71, 72                    |                  |      |
| G4-20                                | Material Aspects within the organization                                      | 71,72                         |                  |      |
| G4-21                                | Material Aspects outside the organization                                     | 71                            |                  |      |
| G4-22                                | Restatements of information   | 71                            |                  |      |
| G4-23                                | Changes from prevoius reporting periods in the Scope and Aspect Boundaries    | 71                            |                  |      |
| Stakeholde                           | er Engagement   |                               |                  |      |
| G4-24                                | Stakeholder groups engaged by the organization                                | 10, 30                        |                  |      |
| G4-25                                | Basis for selection of stakeholders   | 32, 34                        |                  |      |
| G4-26                                | Approach to stakeholder engagement  | 30–32, 34                     |                  |      |
| G4-27                                | Key topics and concerns raised through stakeholder engagement                 | 30-32, 34                     |                  |      |

| G4 Indicator   | and Management Approach   | Reference  | Remarks   | UNGC        |
|----------------|---|--|---|-------------|
| Report Profile | •   |  |   |             |
| G4-28          | Reporting period  | 71   |   |             |
| G4-29          | Date of most recent previous report                                       | <u> </u>   | 2014  |             |
| G4-30          | Reporting cycle   | 71   |   | <del></del> |
| G4-31          | Contact point   | U3   |   |             |
| G4-32          | GRI G4 Content Index  | 73-77  |   |             |
| G4-33          | External assurance  |  | None  |             |
| 0.55           | External assurance  |  |   |             |
| Governance     |   |  |   |             |
| G4-34          | Governance structure  | 26-29, AR 29-35  |   |             |
| Ethics and Int | egrity  |  |   |             |
| G4-56          | Values, principles and norms of behavior                                  | 6-7, 23, 26, 27, 58, 63                                  |   | 10          |
|                |   |  |   |             |
| Economic       |   |  |   |             |
|                | Management approach   | 34-36  |   |             |
| Economic Perf  | formance  |  |   |             |
| G4-EC1         | Direct economic value generated and distributed                           | K1, AR 110   |   |             |
| G4-EC3         | Coverage of defined benefit plan obligations                              | AR 155-160   |   |             |
| Indirect Econo | <del>'</del>  |  |   |             |
| 0.4.507        | Infrastructure investments and services                                   | 40.00.50.70  |   |             |
| G4-EC7         | supported   | 19-20, 69-70   |   |             |
| G4-EC8         | Significant indirect economic impacts                                     | 9, 69  |   |             |
| Environmenta   | al .  |  |   |             |
|                | Management approach   | 26-30, 36-39, 46-49                                      |   |             |
| Materials      |   |  |   |             |
| G4-EN1         | Materials used by weight or volume  | 44-45, 51, ES 34, 51                                     |   | 7, 8        |
| G4-EN2         | Percentage of materials used that are recycled input materials            | 12-14, 42-44, ES 34, 51                                  |   | 8           |
| Energy         |   |  |   |             |
| G4-EN3         | Energy consumption within the organization                                | K1, 51-52  |   | 7, 8        |
| G4-EN5         | Energy intensity  | K1, 52   | <del></del>   | 8           |
| G4-EN6         | Reduction of energy consumption   | 17,50–53   |   | 8,9         |
| G4-EN7         | Reductions in energy requirements of products and services                | 39-40  |   | 8, 9        |
| Water          | <u></u>   |  |   |             |
| G4-EN8         | Total water withdrawal  | 55   |   | 7, 8        |
|                | Water sources significantly affected by                                   |  |   |             |
| G4-EN9         | withdrawal of water   |  | None  | 8           |
| G4-EN10        | Water recycled and reused   | 15,55  |   | 8           |
| Biodiversity   |   | 56   | As a matter of principle, we do not utilize any land in protected areas with high biodiversity. |             |
| Emissions      |   |  |   |             |
| G4-EN15        | Direct greenhouse gas emissions (Scope 1)                                 | 52-53  |   | 7, 8        |
| G4-EN16        | Energy indirect greenhouse gas emissions (Scope 2)                        | 52-53  |   | 7, 8        |
| G4-EN17        | Other indirect greenhouse gas emissions (Scope 3)                         | 53   |   | 7, 8        |
| G4-EN18        | Greenhouse gas emissions intensity  | 53   |   | 8           |
| G4-EN19        | Reduction of greenhouse gas emissions                                     | 52-53  |   | 8,9         |
| G4-EN21        | NO <sub>x</sub> , SO <sub>x</sub> and and other significant air emissions | 54-55  |   | 7, 8        |
| Effluents and  | - <u> </u>  |  |   |             |
| G4-EN22        | Total water discharge   | 55, ES 34, 51, ER 40, 42, 44, 46, 50, 54, 58, 60, 62, 66 |   | 8           |
| G4-EN23        | Total waste   | 56   |   |             |
|                |   |  |   |             |

|                 | and Management Approach  | Reference Remarks  | UNGC      |
|-----------------|--|--|-----------|
| Products and    |  |  |           |
| G4-EN27         | Mitigation of environmental impacts  |  | 7, 8, 9   |
| G4-EN28         | Packaging materials that are reclaimed   | Many products do not have any packaging; transport packaging is reclaimed and reused in some cases.  | 8         |
| Compliance      |  |  |           |
| G4-EN29         | Fines and non-monetary sanctions for non-<br>compliance with environmental regulations           | None   | 8         |
| Transport       |  |  |           |
| Папэроге        | Significant environmental impacts of   |  |           |
| G4-EN30         | transporting products, materials and<br>members of the workforce                                 | 53, 56-57  | 8         |
| Overall         |  |  | -         |
| G4-EN31         | Environmental protection expenditures  | K1,50  | 7, 8, 9   |
|                 | ronmental Assessment   |  | - 7, 0, 5 |
| Supplier Elivii |  |  |           |
| G4-EN32         | Screening of new suppliers using environmental criteria  | 6-8, 29-30, 44-45  | 8         |
| Labor Practic   | es and Decent Work   |  |           |
|                 | Management approach  | 26-30, 34, 37, 58, 60  |           |
| Employment      |  |  |           |
| G4-LA1          | Employee turnover  | K1, 60   | 6         |
| G4-LA2          | Benefits provided to full-time employees   | 65   |           |
|                 | ement Relations  |  |           |
|                 | Minimum notice periods regarding   |  |           |
| G4-LA4          | operational changes  | All legal requirements are fulfilled.  | 3         |
| G4-MM4          | Strikes and lock-outs  | None   |           |
| Occupational    | Health and Safety  |  |           |
|                 | Percentage of workforce represented in   |  |           |
| G4-LA5          | health and safety committees   | 100%   |           |
| G4-LA6          | Injuries, occupational diseases,<br>lost days and work-related fatalities                        | 67   |           |
| G4-LA7          | Workers with high incidence or high risk of diseases related to their occupation                 | 66   |           |
| G4-LA8          | Health and safety agreements with trade unions   | There are no formal agreements with trade unions. The European Works Council and the Group Works Council are represented in the Group Safety Steering Committee. Employee representatives and the Executive Board consistently pursue the same objective in occupational safety and health protection. |           |
| Training and E  | Education  |  |           |
| G4-LA10         | Skills management and lifelong learning  | 18-19, 62-63   |           |
| G4-LA11         | Performance and career development reviews   | 62-63  | 6         |
| Diversity and   | Equal Opportunity  | ·  |           |
| G4-LA12         | Composition of governance bodies and breakdown of employees according to indicators of diversity | 62-64, AR 20-21  | 6         |
|                 | eration for Women and Men  | - <u> </u>   |           |
| <u> </u>        |  | The job performed, the quality of the work and the level of professional experience determine the remuneration at  |           |
| G4-LA13         | Ratio of remuneration of women to men  | Aurubis. No other distinctions are made.   |           |
| Supplier Asse   | ssment for Labor Practices   |  |           |
| G4-LA14         | Screening of new suppliers using labor practices criteria  | 6-8, 29-30, 44-45  |           |
| Human Blate     |  |  |           |
| Human Right     |  |  |           |
| Investment      | Management approach  |  | -         |
| G4-HR1          | Significant investment agreements that include human rights clauses                              | At least 75 % of our contracts with primary raw material suppliers include a corresponding clause.   | 2         |
|                 |  | No training sessions took place during the reporting period  |           |
| G4-HR2          | Human rights training  | Each new employee receives the Code of Conduct.  | _ 1       |
|                 | ialion   |  |           |
| Non-discrimir   | Incidents of discrimination and corrective   |  |           |

| G4 Indicator and Management Approach |   | Reference Remarks  | UNGC |
|--------------------------------------|---|--|------|
| Freedom of As                        | sociation and Collective Bargaining   |  |      |
| G4-HR4                               | Operations in which the right to exercise freedom of association and collective bargaining may be at risk, and measures taken | Aurubis is committed to the ILO core labor standards. None of Aurubis AG's business activities put the right to exercise freedom of association or the right to collective bargaining at risk. On the raw material supplier side, we require our business partners to comply with UN conventions related to human rights, environmental protection and safety. |      |
| Child Labor                          |   |  |      |
| G4-HR5                               | Operations identified as having a risk for child labor, and measures taken  | Aurubis is committed to the ILO core labor standards.<br>None of Aurubis AG's business activities have a risk of child<br>labor. On the raw material supplier side, we require our<br>business partners to comply with UN conventions related<br>to human rights, environmental protection and safety.   | 55   |
| Forced or Com                        | pulsory Labor   |  |      |
| G4-HR6                               | Operations identified as having a risk for forced labor, and measures taken   | Aurubis is committed to the ILO core labor standards. None of Aurubis AG's business activities have a risk of forced or compulsory labor. On the raw material supplier side, we require our business partners to comply with UN conventions related to human rights, environmental protection and safety.  | 4    |
| Security Practi                      | ices  |  |      |
| G4-HR7                               | Percentage of security personnel trained in the organization's human rights policies or procedures                            | 100%   | 1    |
| Indigenous Rig                       | thts  |  |      |
| G4-HR8                               | Incidents of violations involving rights of indigenous peoples and actions taken  | Members of indigenous groups are not affected by company activities at our production sites.   | 1    |
| Assessment                           |   |  |      |
| G4-HR9                               | Operations that have been subject to human rights reviews   | 100%   | 1    |
| Supplier Huma                        | n Rights Assessment   |  |      |
| G4-HR10                              | New suppliers that were screened using human rights criteria  | 6-8, 29-30, 44-45  | 2    |
| Human Rights                         | Grievance Mechanisms  |  |      |
| G4-HR12                              | Formal grievances about human rights impacts  | No tips regarding possible human rights violations were reported via our Aurubis Compliance Portal ("whistleblower hotline").  | 1    |
| Society                              |   |  |      |
| Journey                              | Management approach   | 26-30, 68-69   |      |
| Local Commur                         |   |  |      |
| G4-MM10                              | Number and percentage of operations with closure plans  | 58   |      |
| Anti-corruptio                       |   |  |      |
| G4-SO3                               | Operations assessed for risks related to corruption   | 27-29  | 10   |
| G4-SO4                               | Communication and training on anti-corruption policies and procedures   |  | 10   |
| G4-SO5                               | Incidents of corruption and actions taken   |  | _ 10 |
| Anti-competiti                       |   |  |      |
| G4-SO7                               | Legal actions for anti-competitive behavior   | <u>None</u>  |      |
| Compliance                           | Fines and non-monetary sanctions for non-   |  |      |
| G4-SO8                               | compliance with laws and regulations  |  | -    |
| Supplier Asses                       | sment for Impacts on Society  Screening of new suppliers using criteria for   |  |      |

| G4 Indicator and Management Approach |   | roach Reference  |      | UNGC |
|--------------------------------------|---|------------------|------|------|
| Product Res                          | ponsibility   |                  |      |      |
|                                      | Management approach   | 38-39            |      |      |
| Customer He                          | ealth and Safety  |                  |      |      |
| G4-PR1                               | Product and service categories for which health and safety impacts are assessed         | 38-43            |      |      |
| G4-PR2                               | Incidents of non-compliance with regulations concerning health and safety               |                  | None |      |
| Product and                          | Service Labeling  |                  |      |      |
| G4-PR3                               | Product and service information required by the organization's procedures               | 42, 47           |      |      |
| G4-PR4                               | Incidents of non-compliance with regulations concerning product and service information |                  | None |      |
| G4-PR5                               | Results of surveys measuring customer satisfaction                                      | 32, 38           |      |      |
| Customer Pr                          | ivacy   |                  |      |      |
| G4-PR8                               | Complaints regarding breaches of customer privacy                                       |                  | None |      |
| Compliance                           |   |                  |      |      |
| G4-PR9                               | Fines for non-compliance with product and service laws and regulations                  |                  | None |      |
| Materials Ste                        | ewardship   |                  |      |      |
| DMA MM                               | Management approach   | 12-14, 39-40, 51 |      |      |

# List of Graphics

|                              | P   | age                  |                                    | F   | age                                    |                                      |  | Page                 |  |
|------------------------------|---|----------------------|------------------------------------|---|--|--------------------------------------|--|----------------------|--|
| Perfo                        | ormance Report  |                      |                                    |   |  |                                      |  |                      |  |
| Sustainability Management    |   |                      | Indu                               | strial Environmental Protection   |  | Human Resources                      |  |                      |  |
| G 01<br>G 02<br>G 03<br>G 04 | Corporate Communications & External Affairs<br>Material Aspects 2015 (G4-19)<br>Stakeholder survey<br>The Aurubis Sustainability Strategy<br>uct Responsibility | 27<br>33<br>34<br>35 | G 10<br>G 11<br>G 12               | Corporate Environmental Protection issues until 2015 Responsibility for industrial environmental protection Highest environmental protection standard worldwide   | 46<br>47<br>48                         | G 22<br>G 23<br>G 24<br>G 25<br>G 26 | Human Resources in the Group Apprentices and apprenticeship rate in Germany Staff structure Age structure Length of employment | 62<br>62<br>64<br>64 |  |
| G 05<br>G 06<br>G 07         | Global copper demand by sectors<br>R&D employees<br>Sources of primary raw material   | 38<br>39<br>44       | G 13<br>G 14                       | Environmental management in the<br>Aurubis Group<br>Capital expenditure for environmental<br>protection   | 48<br>50                               | G 27<br>G 28<br>Socia                | Accident frequency<br>Number of industrial accidents in the Group<br>al Commitment   | 66<br>67             |  |
| G 08<br>G 09                 | Sources of recycling materials<br>Broad material and product knowledge in<br>Corporate Procurement & Logistics division   | 44                   | G 15 G 16 G 17 G 18 G 19 G 20 G 21 | CO <sub>2</sub> emissions in the Aurubis Group – estimate Fuel-related CO <sub>2</sub> emissions in Aurubis Group copper production Specific sulfuric dioxide emissions in the Aurubis Group's primary copper production Successful reduction of dust emissions in Aurubis Group copper production Potable water consumption in Aurubis Group copper production Specific metal emissions to water in Aurubis Group copper production Transportation mix in 2015 | 53<br>53<br>54<br>55<br>55<br>56<br>57 | G 29<br>G 30                         | Expenditures for social commitment<br>broken down by region<br>Expenditures for social commitment<br>broken down by focus      | 69<br>70             |  |

# List of Tables

|   |                        | Page |      |  | Page |
|---|------------------------|------|------|--|------|
| Company Profile                                       |                        |      | Hum  | an Resources                           |      |
| T 01  | The Group in figures   | K1   | T 03 | Sites and employees                    | 59   |
| Performance Report                                    |                        |      | Abou |  |      |
| Sustainability Management                             |                        |      | T 04 | Material Aspects (G4-18, G4-19, G4-20) | 72   |
| T 02 Sustainability targets and degree of achievement |                        | 26   | GRI  | G4 Content Index                       |      |
|   |                        | 36   | T 05 | GRI G4 Content Index                   | 73   |
| Industrial Environmental Protection                   |                        |      |      |  |      |
| T 03  | Certifications by site | 49   |      |  |      |

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### Concept, text, consulting and design

Kirchhoff Consult AG, Hamburg

#### **Print**

omb2 Print GmbH, Munich

#### **Photos**

Thies Rätzke (p. 2, p. 8 top right, p. 10 top right, p. 15 top, p. 23 top right)
Studio Patrick Raddatz (p. 11 top left)
Andreas Nolte (p. 12)
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