

# GLOBAL COMPACT PROGRESS REPORT 2015 WACKER CHEMIE AG

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## 1 Statement of Continued Support (Message from the CEO)

Ladies and Gentlemen,

Fiscal 2014 was a good year for WACKER. We achieved a substantial increase in sales and earnings before interest, taxes, depreciation and amortization (EBITDA) in our centennial year, thanks to higher volumes at all our divisions and improved polysilicon prices. Sales reached €4.83 billion overall, up almost 8 percent year on year. These figures are testimony to our employees' great dedication, outstanding expertise and high levels of identification with the company – their strong performance was a key factor in our success. That is why I and my colleagues on the Executive Board wish to express our thanks to all WACKER employees.

In many ways, 2015 will be a thrilling year for WACKER. We intend to commence production of polysilicon at our new production facility in Charleston, Tennessee (USA), at the end of the year and are working hard to achieve this goal. We have set ourselves ambitious goals for 2015. We want to build on the upward trend from 2014 and achieve percentage growth in sales in the high single-digit range. We want to achieve this even though the global economic and political environment is set to remain highly volatile. All over the world, we are seeing developments whose outcome we cannot predict, let alone reliably plan for, and this situation is unlikely to change going forward.

Despite these uncertainties, we are confident of being able to keep WACKER on its long-term trajectory of profitable growth – because we take the long view, because we factor the future into what we do today, and because we possess the ability to change and yet stay firmly grounded.

One of WACKER's greatest strengths is its wide array of sophisticated products for key industries. As globalization progresses and more and more people benefit from rising affluence, demand for higher-quality products in all areas of life will increase as well.

"Creating tomorrow's solutions" is our all-pervasive motto at WACKER. Every day, we have to work at turning this aspiration into a rule that we live by in practical terms. After all, a constant flow of new solutions will be needed in the future. Companies can be profitable in the long term only if they take their responsibility toward the environment and society seriously. That is why sustainability has been firmly rooted in our business processes for many years. The importance of sustainability to us is demonstrated by the fact that we have made it one of our five strategic goals and have compiled our own Code of Sustainability. Sustainable development means balancing economic, ecological and social factors in everything we do.

Two voluntary global initiatives form the basis for sustainable corporate management at WACKER: Responsible Care® (the chemical-industry initiative) and the UN's Global Compact. Through this voluntary commitment, WACKER undertakes to protect the environment, employees and society above and beyond legal requirements. We expect our suppliers to observe the principles of the UN's Global Compact and the Responsible Care® initiative, and have included this in our general terms of procurement. This will help us to systematically implement our sustainability strategy going forward.



Dr. Rudolf Staudigl

President & CEO of Wacker Chemie AG

April 2015

## 2 Practical Actions

With the UN's Global Compact, we are anchoring social responsibility in our business.

WACKER's Code of Conduct contains important principles, rules and behavioral guidelines that the company abides by. Every employee is obliged to observe these regulations. They serve as a guide for our employees alongside our existing contractual and company rules, regulations and compliance programs of individual Group companies.

The Code of Conduct defines the fundamental principles of our conduct. These principles are the basis for our work. They aim to avoid situations that could lead to our conduct's integrity being questioned. We see the Code of Conduct as an active regulation that's updated and improved in line with legal and social changes.

We expect all employees to observe not only the internal regulations described here, but also all standards of conduct and laws applicable in the countries where they work. We do not tolerate violations of the Code of Conduct's principles.

### 2.1 Human Rights

#### "Together for Sustainability" Initiative

WACKER desires to strengthen its commitment to sustainable business practices in the supply chain. To this end, we have now joined the "Together for Sustainability" (TfS) initiative. Established in 2011, the project aims at implementing a standardized global program for responsible procurement of goods and services in the chemical industry and improving the ecological and social standards of suppliers. By joining "Together for Sustainability," WACKER will be able to improve the sustainability of the entire supplier chain.

The initiative is based on established principles such as those subscribed to by United Nations Global Compact and Responsible Care®, the chemical industry's sustainability initiative. Together, the TfS members organize supplier evaluations using questionnaire analyses and audits, whereby the suppliers' sustainability performance is assessed by independent auditing bodies based on criteria tailored to the chemical industry. Aspects that are assessed range from the environment, health and safety, labor and human rights to ethical company management. The audits include on-site checks, particularly in risk regions.

The sustainability information obtained from the supplier assessments is made available to all TfS members via a web-based platform. This avoids non-standardized, company-specific check programs and reduces red tape for suppliers and customers.

#### Social Security

Since 2014, WACKER has been offering its employees options for organizing their working time in a more personalized way than in the past. Employees now have access to a variety of leave options and part-time models for personal situations, such as providing care for family members with serious health conditions, pursuing further education or taking a sabbatical. Unpaid leave can be taken up to a maximum period of two years. The new arrangements are provided for in the "Working Life and Demography" collective-bargaining agreement and offer employees a wide range of options for balancing the demands of their careers and the different stages of their lives.

Good social benefits, competitive compensation and motivating tasks make WACKER an attractive employer. This is demonstrated by the long-term commitment of our employees to our company – the average length of service in Germany (permanent staff) was 18.1 years (2013: 17.3 years). In 2014, the employee turnover rate rose to 4.1 percent groupwide (2013: 3.4 percent), while in Germany it was only 0.8 percent (2013: 0.9 percent). At non-German sites, the rate amounted to 13.8 percent (2013: 11.9 percent).

In addition to their fixed base salary (which includes vacation and Christmas bonuses), WACKER employees usually also receive some variable compensation – a voluntary payment to employees on both the standard and above-standard pay scales.



A WACKER company pension is an important compensation component and is available at most of our German and non-German sites, except for regions where the statutory pension appears sufficient or legal provisions are inadequate. Wacker Chemie AG's pension fund – Pensionskasse der Wacker Chemie VVaG – provides a company pension to WACKER employees in Germany. The fund has around 17,000 members and provides pension payments to some 7,700 retirees. The average pension paid was around €630 per month. WACKER pays in up to four times its employees' annual pension contributions, with the exact amount being determined by the type of agreement.

## Demographic Change

WACKER has been addressing the demographic trend for many years. The average age of the Group's workforce at the reporting date was 42.6. Employees at non-German sites are younger (average age: 39.5) than in Germany (43.6). The age structure abroad varies greatly from region to region. Staff at Asian sites are comparatively young (average age: 34.6), while staff at us locations have an average age of 47.7. Regional variations in age structure are not exclusive to WACKER; they reflect the age structures of the populations in each continent and country.

We have set ten strategic goals to maintain the health of our employees and to retain our long-term innovative and competitive strength at WACKER. Long-term measures for the workforce range from training opportunities to health programs. In health management, the focus is on five fields. We seek to avoid spinal disorders and cardiovascular diseases in our workforce, increase mental resilience, enable age-appropriate work and find suitable jobs for staff with health restrictions. In 2014, Health Services launched a groupwide initiative aimed at raising awareness about back health among WACKER employees and presenting preventative measures.

The "Fit for Your Shift" project launched in 2013 in collaboration with Deutsche Rentenversicherung Süd (the southern regional branch of Germany's statutory pension insurance system) was turned into a permanent program in 2014. In this health program tailored specifically to shift workers, participants are taught habits that can help them deal better with the pressures of shift work in the long term. The program consists of four modules: a one-week stay at a rehabilitation clinic, a three-month program of training at the workplace, a six-month period during which workers continue the training on their own, and a final refresher weekend. The European Chemical Industry Council (Cefic) bestowed a special commendation on "Fit for Your Shift" as part of the 2014 European Responsible Care Awards.

Since 2012, we have been offering preventive checkups to management-level 3 ("FK3") employees over 45 years of age at all locations in Germany. In addition to organ examinations, the FK3 checkups also focus on giving employees advice on how to deal better with mental stress situations. The preventive program has been very well received: 87 percent of all eligible managerial employees took part in the checkups during the reporting year.

## Transferring Knowledge and Personnel Development

WACKER will remain innovative and competitive as long as it has highly-skilled employees, which is why we offer all our employees opportunities for additional training. At least once a year, employees and supervisors discuss development measures during performance reviews. This approach applies to all levels of the corporate hierarchy. In 2014, our employees completed about 74,000 e-learning sessions (2013: about 88,000), and more than 16,400 participants (2013: more than 17,500) attended seminars, advanced training programs and conventions, or received tutoring.

In the reporting year, WACKER completed the first cycle of the talent-management process (launched in 2013), which ended with the Executive Board conference on succession planning. The aim is to identify and encourage talent at an early stage, so that WACKER can fill challenging positions with highly-qualified in-house candidates in the medium and long term. The talent-management process is directed at Executive Personnel and all other employees above the standard pay scale. Employees are discussed according to uniform criteria at conferences held during the annual talent-management cycle. These conferences initially take place within a corporate sector (business division, corporate department or subsidiary), and are subsequently conducted across corporate sectors. At the annual performance review, employees and supervisors discuss the views expressed in the conferences and jointly determine development measures. This groupwide approach allows us to offer employees in small units and at subsidiaries perspectives, too.

Overall, WACKER invested €7.0 million in personnel-development measures and advanced training in 2014 (2013: €7.0 million).



## Social Responsibility: Supporting Science Education and Social Projects

To be commercially successful, businesses must also have society's trust, which is why we take our social responsibilities seriously, especially in communities near our sites. The scientific and technical education of young people is important to us, as we will need committed chemists, engineers and laboratory assistants in the future if we are to remain competitive.

2014 was the ninth time that we had taken the helm as statewide sponsor and organizer of the "Young Scientists" competition in Bavaria. We also once again sponsored the Dresden/East Saxony regional heat of "Young Scientists."

We attach particular importance to projects that help children and young people. Since 2007, WACKER has supported "Die Arche" (The Ark), a Christian charity that aids children and adolescents from socially disadvantaged families in several German cities. In the reporting year, WACKER presented its eighth annual donation of €100,000 to the charity's Munich branch. The government of Upper Bavaria presented WACKER with its honorary award for outstanding integration work, recognizing the company's sustained support of the charity.

WACKER's own Burghausen Vocational Training Center (BBiW) accommodated eight unaccompanied adolescent refugees from West and Central Africa in its guest house. The young refugees are taking intensive German lessons to help them in their new life in Germany. They are also taking an integration class at the Mühldorf vocational school with the goal of obtaining the necessary educational qualification for a vocational-training place.

## 2.2 Labor Standards

As a global company, WACKER operates in international markets and multicultural environments. Holding each employee's skills and dedication in high regard, we view human diversity as an asset. We oppose discriminatory or derogative treatment on account of gender, race, ethnicity, religion, ideology, disability, sexual orientation or age. These principles are valid across the WACKER Group and, as part of our corporate culture, are embodied in our Code of Teamwork & Leadership, drafted in 2012. Employees may report any discrimination to their supervisors, as well as to a compliance officer, the employee council or the designated HR contact person. The complaint will be investigated and the reporting employee will be informed of the results. We do not keep a log of discrimination cases.

Special arrangements are in place to help and promote WACKER employees who are disabled or suffer from long-term occupational disabilities. The company's integration management program provides for close cooperation between supervisors, employees, HR, disabled-employee representatives and Health Services to permit disabled employees to remain in their workplace or to change to a suitable job.

It goes without saying that we offer equality of opportunity to all employees, regardless of their gender. This approach also applies to compensation. The amount earned reflects in particular each job's specific demands and responsibilities. The average annual salary of female employees is marginally lower than that of male employees. The reason lies in the statistical analysis, where the figures had not been adjusted for parameters such as seniority, age and performance content of the salary.

In the reporting period, personnel expenses rose to €1,246.9 million (2013: €1,133.0 million), up 10.1 percent from the previous year. These expenses included outlays for social benefits and the company pension plan amounting to €238.8 million (2013: €231.7 million). Apart from the higher number of employees and pay-scale increases, the main reasons for the increase were a bonus to mark WACKER's centennial and the payment of variable compensation.

The IG BCE trade union and chemical-industry employers agreed on a new 14-month collective-bargaining agreement in February 2014. The standard pay scale increased by 3.7 percent, and WACKER increased the salaries of above-standard-pay-scale employees by 4 percent.

## 2.3 Environment

All WACKER's processes focus on the need to protect the environment and to manufacture products safely. We attach particular importance to integrated environmental protection, which commences with product development and plant planning. In accordance with the core ideas of the Responsible Care® initiative, our environmental protection measures often go beyond what is legally required.

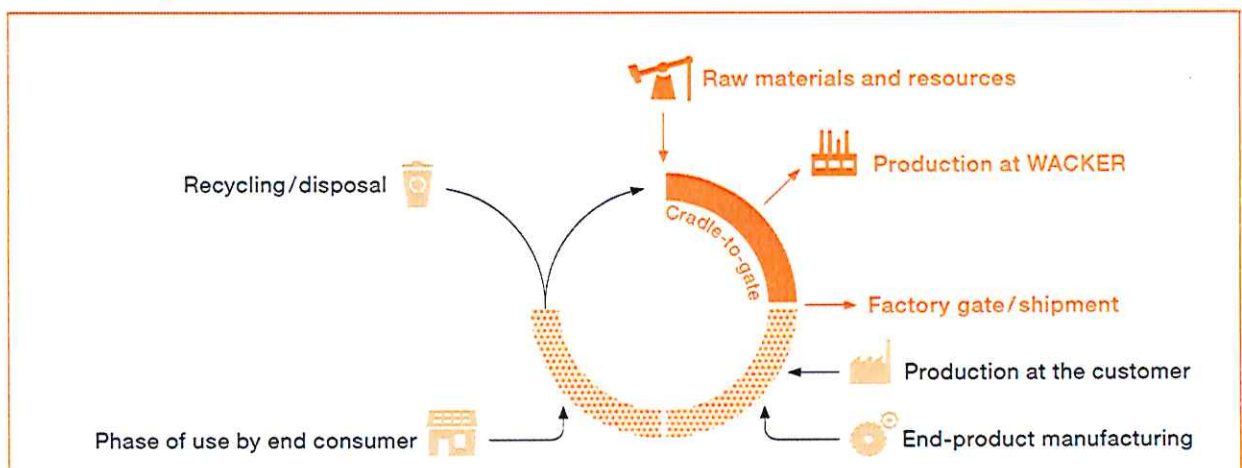
In many parts of the world, clean water is particularly scarce, and obtaining and purifying water is very expensive. As a global player, we take such conditions into account in our production processes and during transport. We use the Global Water Tool® (GWT) developed by the World Business Council for Sustainable Development (WBCSD) to analyze the annual relative water stress index of the countries where our main global production sites are located.

### Product Stewardship

WACKER takes criteria for environmental and health protection as well as for safety into account at every stage of the product lifecycle. In research and development projects, we examine the sustainability aspects of our new products and processes, starting with the raw materials used. We try to minimize raw-material consumption while selecting materials that offer maximum ecological benefit.

Our products are generally supplied to business customers for further processing – not directly to end customers. Our lifecycle assessments (LCAs) look at the environmental impact caused by a specific product family throughout its lifecycle – a “cradle-to-gate” assessment extending from manufacturing to the factory gate. They allow us to gauge the sustainability of our products and production processes, and to improve them accordingly.

### Product Lifecycles



Since 2012, we have been using the WACKER® Eco Assessment Tool to systematically evaluate the opportunities and risks of our product line from an environmental perspective. The tool factors in the material, water and energy consumption of a product, as well as its ecotoxicity, over the entire lifecycle.



## 2.4 Anti-Corruption

Our relationships with suppliers, customers and other business partners are based on fair conduct and our business decisions on a sound foundation. Extravagant gifts and invitations could affect our ability to make business decisions without conflicts of interest.

These rules equally apply to gifts and invitations that our employees offer third parties. Particular care should be taken when this involves suppliers, customers or third parties who have an ongoing business relationship with our company. Invitations that are out of proportion should not be issued. Exceptions are only possible with prior consent from both supervisor and compliance officer.

WACKER expects all employees and business partners to abide by ethical business standards. This is the only way in which we can achieve the goals connected to this code. Situations that can lead to a conflict between personal and company interests should be avoided.

The selection of customers and suppliers, as well as all other business relationships, must solely be based on objective criteria. Employee bribery, corruption and personal gain are not tolerated.

## 3 Results

Substantial progress was made on strategic sustainability-management projects in 2014:

### Group Certificate

Our Group certification ensures that customer-driven specifications and our corporate standards are implemented at all WACKER sites. In the reporting year, we included the technical competence center in Mumbai, India, in the Group certification for ISO 9001 and ISO 14001. Almost all WACKER production sites are now included in the Group certificate. Not yet included are the sites in Brazil, the Kolkata plant of Wacker Metroark Chemicals Pvt. Ltd., India, and the Halle (Germany) site acquired from Scil Proteins Production GmbH in 2014. All these sites, however, have corresponding individual certificates.

### Greenhouse Gas Emissions

In 2012, we began calculating our indirect greenhouse-gas emissions in accordance with Greenhouse Gas Protocol Scope 3. These emissions include those generated along the supply chain, e.g. by suppliers or through waste disposal and the transportation of products. In 2014, we added further Scope 3 categories and adapted our calculation methodology to the GHG Protocol guidance for the chemical industry. The Group's carbon footprint is an important tool for improving climate protection.

oekom research AG, a German sustainability rating agency, gave WACKER a good overall rating of B-. According to oekom's rating methodology, our company is classified as "Prime." The status makes WACKER's publicly traded securities eligible for investment from an environmental and social perspective. oekom's clients include financial service providers with over €600 billion in assets invested on the basis of the rating agency's sustainability research. oekom has been assessing WACKER since 2008.

### Sustainability Platform

In 2013, our new IT system for sustainability reporting (SPIRIT) was implemented groupwide, replacing various individual systems. We use the new software to collect and manage environmental and energy data, environment- and safety-related incidents and Integrated Management System (IMS) audits. The tool went live at all of our major production sites during the reporting year, replacing almost 70 percent of our existing systems.

## Compliance Management Takes Aim at Cybercrime

WACKER's ethical principles of corporate management exceed legal requirements. Employees can direct their questions to 22 compliance officers worldwide, who are based in Germany, the USA, China, Taiwan, Japan, India, South Korea, Brazil, Mexico, Singapore, Russia and the United Arab Emirates. Compliance issues in countries other than those listed are handled in Germany by the Group Compliance Officer.

Employees are instructed to inform their supervisors, the compliance officers, the employee council or their designated HR contacts of any violations they notice. In 2014, Compliance Management consulted with the international sites to ensure that globally applicable measures comply with local requirements. Emphasis was also placed on preventing cybercrime. Accordingly, employees in at-risk areas such as accounting and finance were informed about effective strategies against cyber attacks.

## Workplace and Plant Safety – Global Focus on Machinery Safety

Managing plants and processes in a way that poses no risk to people or the environment is an important objective at WACKER. We therefore operate a groupwide safety management system that covers both workplace safety and plant safety. We will align our processes and workplace safety standards with the international OHSAS 18001 standard by 2015.

Systematic workplace safety includes the regular evaluation of hazards and work-area monitoring. The first step in ensuring plant safety is to identify the risks systematically and then assess them. This includes analyzing how well we control the energy (e.g. pressure, heat) present in a process and determining what influence an individual error might have on a chain of events that could lead to the escape of a substance or to an accident. On completion of this comprehensive analysis, we specify safety measures to prevent undesirable incidents.

In 2013, we had placed the focus of the ANSIKO project for machinery safety on the German production sites. In 2014, we inspected machinery at all our international sites, identifying equipment that poses a risk of injury. We then critically reviewed this machinery to make it even safer for employees.

WACKER attaches particular importance to providing its safety experts with ongoing training. We hold regular training sessions, for example, on plant safety and explosion damage protection. In Adrian (USA) and Zhangjiagang (China), we trained our specialists on machinery safety, in particular, during the year under review. We also conducted safety assessments of our sites in Ulsan (South Korea), Nanjing and Zhangjiagang (China), and Kolkata (India).

Our goal for occupational safety is to reduce our groupwide accident rate (the number of workplace accidents per million hours worked) to below 2.0 in 2015. Working toward this overall goal, we set an interim target for 2014 of bringing the number of workplace accidents per million hours worked to below 3.0 at our German sites. This target was almost achieved: we had 3.4 workplace accidents with missed workdays per 1 million hours worked in Germany in the reporting year. The groupwide rate was 2.8, 26 percent lower than the previous year (2013: 3.8 accidents). In terms of reportable accidents (accidents with more than three days of absence), WACKER's numbers are far better than the German chemical industry average. The reportable accident rate in 2014 was 1.2 per 1 million hours worked (2013: 1.4), whereas in 2013, Germany's BG RCI (the statutory employer liability insurance carrier of the basic materials and chemical industries) registered 9.3 reportable accidents per 1 million hours worked in chemical companies.

Very few of the accidents at our sites are chemical in nature. The most common causes are tripping, slipping, falling, and inattentiveness during manual activities. Not satisfied with our accident rate, we are stepping up our occupational-safety efforts. We are systematically implementing our new WACKER Safety Plus (WSP) program, which incorporates successful safety elements from sites with particularly low accident rates. Such elements include safety patrols, discussions with the workforce and emergency drills. The goal of WACKER Safety Plus is to recognize and avoid unsafe behavior – on the way to and from work, in the office, at the plant, when operating machinery, or when handling chemicals.

At its German sites, WACKER placed particular emphasis in 2014 on reviewing and updating hazard assessments. As a consequence, we improved protective concepts and safety measures in many areas. The program will be continued at all German sites until 2016.



## Workplace Accidents Involving Permanent Staff and Temporary Workers

Number	2014	2013	2012	2011	2010	2009	2008
Accident rate for Group employees: accidents <sup>1</sup> per 1 million hours worked	2.8	3.8	4.7	3.9	4.3	4.0	3.7
Accident rate for Group employees: reportable accidents <sup>2</sup> per 1 million hours worked	1.2	1.4	2.1	1.4	1.2	1.2	1.0

<sup>1</sup>Accidents leading to at least one day off work

<sup>2</sup>Accidents leading to over three days off work

## Environmental Protection

In 2014, WACKER invested €5.1 million in environmental protection (2013: €5.4 million). In the same period, environmental operating costs amounted to €88.2 million (2013: €89.4 million). WACKER continuously works on improving its production processes to conserve resources.

One of our main tasks is to close material loops and recycle byproducts from other areas back into production, enabling us to reduce or prevent emissions and waste. Since 2011, our key environmental indicators have included our silicon-metal plant in Holla (Norway), acquired in 2010. The environmental impact of metallurgical production there differs greatly from that of WACKER's typical chemical operations. Airborne emissions, in particular, have risen as a result of the acquisition. 2014 was the first year when the accounting of key environmental indicators included consolidated reporting on 300 mm wafer production in Singapore.

In 2013, we had optimized the Burghausen site's gas turbine during a scheduled shutdown. In 2014, the longer availability of this facility – and increased electricity production at the Burghausen power plant – resulted in higher direct emissions of carbon dioxide. At Nünchritz, we improved steam-generation processes within the integrated production system, thereby reducing direct emissions of carbon dioxide. Total direct carbon-dioxide emissions in 2014 were at the prior-year level. As for total emissions of non-methane volatile organic compounds (NMVOCs), we amended our accounting methodology in 2014. The prior-year data were adjusted to reflect the new methodology.

The rise of the figures during 2014 was due to production increases.

Higher production volumes raised Burghausen's demand for cooling water, which climbed back up to the 2012 level. Groupwide, emissions to wastewater (chemical oxygen demand – cod) fell. Optimized wastewater treatment at the Nünchritz site reduced the cod load. The Group's total waste volume rose slightly. The increase stemmed from various factors, including consolidated reporting of the Singapore site and the expansion of the Calvert City site, where considerable amounts of rubble had been produced.

In 2014, our indirect CO<sub>2</sub> emissions from procured energy (pursuant to Greenhouse Gas Protocol Scope 2) rose to 1,420 kt (2013: 1,241 kt). This was due to increased production volumes, particularly of polysilicon at the Burghausen and Nünchritz sites. We used energy-efficiency measures to reduce weighted specific energy consumption and the associated specific CO<sub>2</sub> emissions – while maintaining a comparable product portfolio.

The Group's carbon footprint is an important tool for improving climate protection. Having determined our indirect greenhouse gas emissions from procured energy (pursuant to Greenhouse Gas Protocol Scope 2) for the first time in 2011, we have also been measuring our Scope 3 emissions since 2012. These include emissions generated along the supply chain, e.g. by suppliers or through waste disposal and the transport of products. In 2014, we once again forwarded these emissions data to the Carbon Disclosure Project (CDP), which WACKER joined in 2007. Founded in London in 2000, CDP is a not-for-profit organization working to achieve greater transparency in greenhouse gas emissions.

## Environmental Indicators from 2008 to 2014

	2014	2013	2012	2011	2010	2009	2008
<b>Air</b>							
CO <sub>2</sub> emissions <sup>1</sup>							
Direct (kt)	1,249	1,251	1,311	1,341	986	969	976
Indirect (kt)	1,420	1,241	1,133	1,075	–	–	–
NO <sub>x</sub> nitrogen oxides (t) <sup>2</sup>	1,960	2,010	2,225	2,221	926	963	997
Non-methane volatile organic compounds (NMVOCs) (t) <sup>3</sup>	830	750	720	670	620	530	560
<b>Water</b>							
Water consumption (thousand m <sup>3</sup> )	241,973	220,908	242,072	268,657	252,151	264,532	241,286
Chemical oxygen demand (COD) (t)	1,230	1,320	1,460	1,680	1,820	2,730	4,782
Halogenated organic hydrocarbons (AOX) (t)	2	2	3	5	6	6	7
<b>Waste</b>							
Disposed of (t)	49,260	31,560	39,920	47,410	48,520	80,860	87,293
Recycled (t)	108,940	110,500	96,880	80,290	77,030	63,430	74,327
Hazardous (t)	75,630	73,380	73,620	68,230	69,320	100,860	108,458
Non-hazardous (t)	82,570	68,680	63,180	59,470	56,230	43,430	53,161
<b>Energy</b>							
Electricity consumption (GWh)	4,927	4,526	4,559	4,372	3,759	2,702	2,405
Primary energy consumption							
Natural gas (GWh)	4,978	5,051	5,927	5,771	5,463	5,378	5,372
Solid fuels (coal, charcoal, wood) (GWh)	839	872	862	886	432	–	–
Heat supplied by third parties (steam and district heating) (GWh)	244	236	223	218	228	209	195
Heating oil (GWh)	20	17	18	16	13	8	9

<sup>1</sup> CO<sub>2</sub> emissions are measured as per The Greenhouse Gas Protocol (GHG Protocol: "A Corporate Accounting and Reporting Standard"), published by the World Resources Institute and World Business Council for Sustainable Development. Scope 1: direct emissions (no CO<sub>2</sub> equivalents). Scope 2: indirect emissions from the consumption of purchased energy (no CO<sub>2</sub> equivalents for purchased energy). In accordance with the recommendations of the GHG Protocol, Wacker Chemie AG's direct and indirect emissions were recalculated retroactively due to amendments to the system boundaries, starting from the reference year (2012) for the CO<sub>2</sub> target.

<sup>2</sup> Corrected NO<sub>x</sub> emissions for 2013 for the Holla site, since exact figures did not become available until later.

<sup>3</sup> The method for calculating the total volume of non-methane volatile organic compounds (NMVOCs) emitted by our production facilities was amended in 2014. We harmonized the data analysis, took additional substances into account and adjusted the prior-year figures on the basis of the new methodology.

In 2014, WACKER was listed for the first time in the Carbon Disclosure Leadership Index (CDLI) for the German-speaking region (Germany, Austria, Switzerland and South Tyrol) having achieved a score of 95 B. We thus outperformed our peer group in the MDAX in this respect. Following our score of 86 B in 2013, we defined our CO<sub>2</sub> reduction target and elaborated our reporting on opportunities and risks and on indirect emissions generated along the supply chain (Scope 3).

Since the fall of 2013, we have been participants in the "myccf" project of co2ncept plus – a German association of businesses with interests in emissions trading and climate protection issues. In this project, which is supported by the



German Federal Environmental Foundation (DBU), we are further developing our corporate carbon footprint (CCF). We want to expand our reporting on indirect emissions generated along the supply chain (Scope 3).

## Water Consumption Tested Using the Global Water Tool®

This analysis was conducted for the first time in 2012, based on analyses using the water stress index developed by the Water Systems Analysis Group of the University of New Hampshire, USA. This index provides information on the relationship between water consumption and the availability of renewable fresh water. The outcome of the analysis is that our most important production sites are located in regions with a low relative water stress index. These regions account for more than 97 percent of our annual water use and over 90 percent of our production volume. Production sites in countries for which no GWT-based water stress index information is available account for less than 0.5 percent of our water consumption.

A special Employee Suggestion Program initiative entitled "Save Wastewater and Make a Profit" was launched at the Nünchritz site in December 2014. The purpose of the initiative is to encourage employees to develop ideas for conserving and recycling water in production. The campaign runs through June 30, 2015. In 2014, a similar campaign took place at the Burghausen site: employees there made 72 improvement suggestions, nine of which have been implemented to date in areas such as wastewater treatment.

## Energy Management

The chemical industry is one of the most energy-intensive sectors. In Germany alone, it uses around 20 percent of all the electricity consumed by industry. That is why WACKER, too, is continually improving the energy efficiency of its processes. This enables us to remain globally competitive and to support climate protection. Many chemical reactions generate heat that can be put to use in other production processes. We have been using integrated heat-recovery systems in Burghausen and Nünchritz for years and are continually improving them. In this way, we can reduce the amount of primary energy (as a rule, natural gas) that our power plants consume.

To enhance energy efficiency and reduce specific energy consumption (amount of energy per unit of net production output), the Executive Board has defined energy targets for WACKER Germany. The goal is to reduce weighted specific energy consumption by a third between 2007 and 2022.

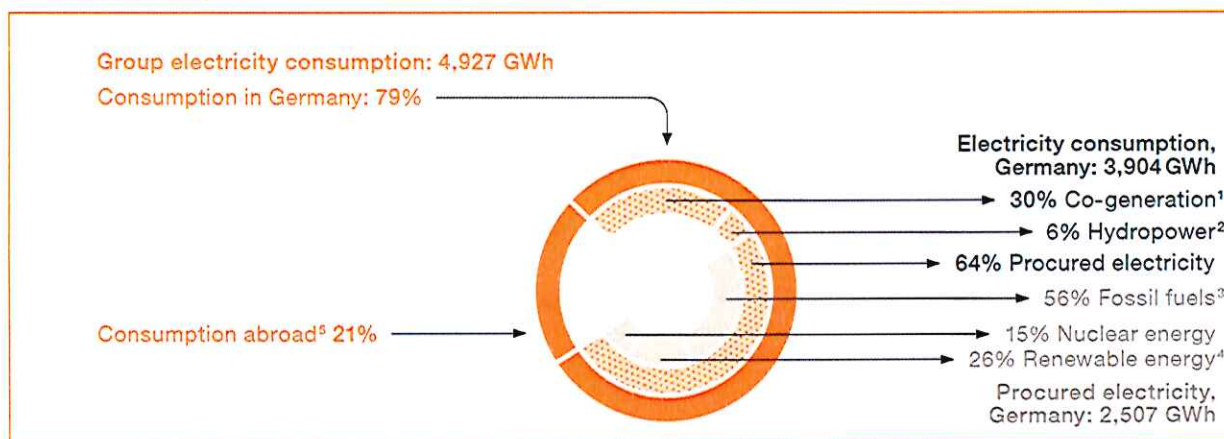
Our energy goals ensure that we meet one of the requirements of the energy management system as per ISO 50001, which we have introduced and certified at all sites of Wacker Chemie AG, Siltronic AG and Alzwerke GmbH in Germany. We are thus already in full compliance with the legal obligation to have an energy management system in place by 2015.

In 2014, Wacker Chemie AG received the Bavarian state government's Energy Award, which was conferred in recognition of the Group's highly efficient polysilicon manufacturing operations. Thanks to patented technology advancements and process optimizations, we lowered our specific energy consumption for polysilicon production by 29 percent. Hyperpure polysilicon is the main raw material for making solar modules and, consequently, plays a vital role in generating solar power. The Bavarian Energy Award is conferred every two years for outstanding innovations in responsible energy management.

## Generating Energy Efficiently

Burghausen uses hydroelectric power to generate electricity. Our Norwegian site, Holla, also generates its electricity mainly from water power. Our primary source of energy, though, is climate-friendly natural gas. At WACKER's large Burghausen and Nünchritz sites, we produce steam and electricity in cogeneration systems. These combined heat and power (CHP) plants have more than 80-percent fuel efficiency, which is significantly higher than that of conventional plants, where electricity and heat are generated separately.

## Electricity Supply



<sup>1</sup>Burghausen and Nünchritz

<sup>2</sup>Burghausen

<sup>3</sup>Coal, lignite, oil, gas; modified calculation method: since 2014, data in line with Germany's energy mix; source: BDEW (German Association of Energy and Water Industries)

<sup>4</sup>Hydro, wind, solar power; modified calculation method: since 2014, data in line with Germany's energy mix; source: BDEW (German Association of Energy and Water Industries)

<sup>5</sup>Outside Germany, we purchase electricity from third parties based on the local standard energy mix

In 2014, absolute electricity consumption rose slightly to 4,927 GWh (2013: 4,526 GWh) although specific energy consumption was lowered by energy-efficiency measures. The rise stemmed from the high level of polysilicon-plant utilization throughout the year. The Group's power plants – the hydroelectric and CHP (gas and steam turbine) generating stations in Burghausen and the CHP in Nünchritz – produced around 1,405 GWh in 2014 (2013: 1,457 GWh). This means that WACKER covered about 30 percent of its total electricity needs itself. Groupwide, carbon dioxide emissions from captive power plants subject to emissions trading rules and from silicon-metal production in Holla (Norway) totaled about 1.1 million metric tons in the reporting period (2013: 1.2 million metric tons).

WACKER's German production sites accounted for 79 percent (2013: 78 percent) of its total electricity needs. In Germany, we purchased enough electricity from utilities to cover 64 percent (2013: 59 percent) of our electricity requirements there. In line with the German energy mix, 56 percent of this electricity was generated from fossil fuels (2013: 51 percent). 15 percent came from nuclear energy (2013: 18 percent) and 26 percent from renewable energy sources (2013: 31 percent). Heat consumption, which includes the use of solid carbon-based and biogenic fuels (coal, charcoal, wood) for silicon-metal production at Holla (Norway), fell marginally across the Group to 3,572 GWh (2013: 3,724 GWh). We have modified our calculation method for the electricity-generation mix: since 2014, our data are based on Germany's energy mix as published by the BDEW.



## Energy Consumption

GWh	2014	2013	2012	2011	2010	2009	2008
Electricity consumption	4,927	4,526	4,559	4,372	3,759	2,702	2,405
Heat consumption <sup>1</sup>	3,572	3,724	3,755	3,862	3,374	2,794	2,782
Primary energy							
Natural gas	4,978	5,051	5,927	5,771	5,463	5,378	5,372
Solid fuels <sup>2</sup>							
(coal, charcoal, wood)	839	872	862	886	432	–	–
Heat supplied by third parties (steam and district heating)	244	236	223	218	228	209	195
Fuel oil	20	17	18	16	13	8	9

<sup>1</sup> Since 2010, heat consumption figures have reflected the use of solid fossil and biogenic fuels (coal, charcoal and wood) at the silicon-metal plant in Holla, Norway.

<sup>2</sup> Used as a reducing agent at the silicon-metal plant in Holla, Norway