

The background of the entire page is a close-up, high-resolution photograph of water ripples. The water is a deep, dark blue, and the ripples create a complex, organic pattern of light and shadow, giving it a textured, almost abstract appearance. The lighting is soft, highlighting the peaks of the ripples and casting deep shadows in the troughs.

**WACKER**

Wacker Chemie AG  
Sustainability at WACKER

2013/2014

“In everything we do,  
we consider the future.  
Sustainable management is one  
of our five strategic goals.”

Dr. Rudolf Staudigl  
President & CEO of Wacker Chemie AG





# What motivates us?



## Sustainability

Our responsibility as a company extends beyond our business activities.



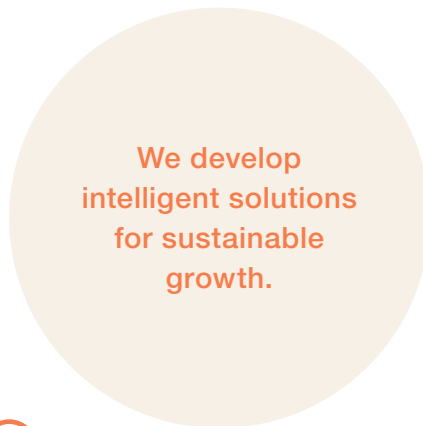
## Customers

WACKER products and solutions are our customers' first choice.



## Employees

We want to be one of the world's best employers.



We develop intelligent solutions for sustainable growth.



## Enterprise Value

We continuously increase our company's value.



## Innovations

We tap new markets via product and process innovations for tomorrow's world.

WACKER is a globally active company with state-of-the-art specialty chemical products. Our portfolio includes over 3,200 products supplied to more than

3,500 customers in over 100 countries. WACKER products are found in countless everyday items, ranging from cosmetic powders to solar cells.

More than half of the world's population now lives in cities. We need infrastructure that conserves resources better, construction that is more intelligent, and materials that are lighter. As one of the world's leading manufacturers of construction chemicals, WACKER is contributing to the development of better cities for the future, such as Shanghai, shown here.





# Which future trends do we serve to achieve our goals?

Our strategic goals are oriented toward the highly promising fields of energy, urbanization and construction, digitalization, and rising affluence in emerging countries. WACKER offers products that satisfy these global trends.



## Energy

Polysilicon, and dispersible polymer powders for the insulation of buildings



## Digitalization

Silicon wafers, silicones for encapsulation of electronic components, polysilicon



## Urbanization and Construction

Silicone resin emulsion paints, dispersible polymer powders, dispersions for paints and coatings



## Greater Affluence in Emerging Countries

Silicones, cyclodextrins, dispersible polymer powders, dispersions

WACKER provides information on the safe use of its products and is continually working to prevent or reduce the use of product ingredients that are harmful to human health or the environment. Our products are generally supplied to business customers for further processing – not directly to end customers. Our life cycle assessments (LCAs)

look at the environmental impact caused by a specific product family throughout its life cycle – a “cradle-to-gate” assessment extending from manufacturing to the factory gate. These analyses allow us to gauge the sustainability of our products and production processes, and to improve them accordingly.





# How do we assess the environmental impact of our products?

## WACKER ECOWHEEL®



Material  
 Energy  
 Ecotoxicity  
 Water

Since 2012, we have been using the WACKER® Eco Assessment Tool to evaluate systematically the risks and opportunities of our product line from an environmental perspective. We present these risks and

opportunities in what is called an “ECOWHEEL®.” We take account of material, water and energy consumption, as well as ecotoxicity, over the entire product life cycle.



Since WACKER acquired the Norwegian site in Holla in 2010, continuous expansion of environmental protection has been on the agenda for the energy-intensive silicon-metal production facilities there. The team has now achieved a considerable reduction in dust emissions.





A network of pipes connects the various production facilities at the Burghausen site. Supplying the individual facilities with raw and auxiliary materials, this network conveys the finished products to their respective destinations.

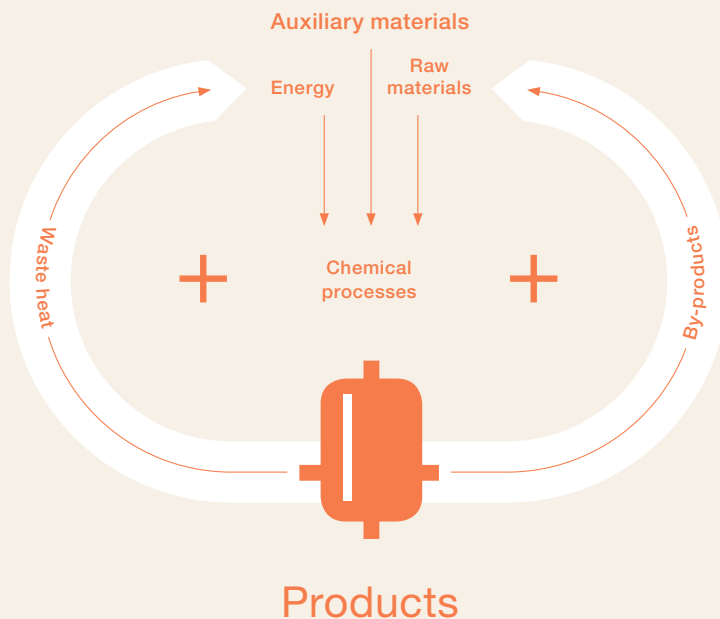






# How do we optimize our processes while conserving resources?

WACKER's integrated production system forms the basis of high cost, energy and resource efficiency.



WACKER attaches particular importance to integrated environmental protection. This commences with product development and plant planning. In accordance with the core ideas of the Responsible Care®

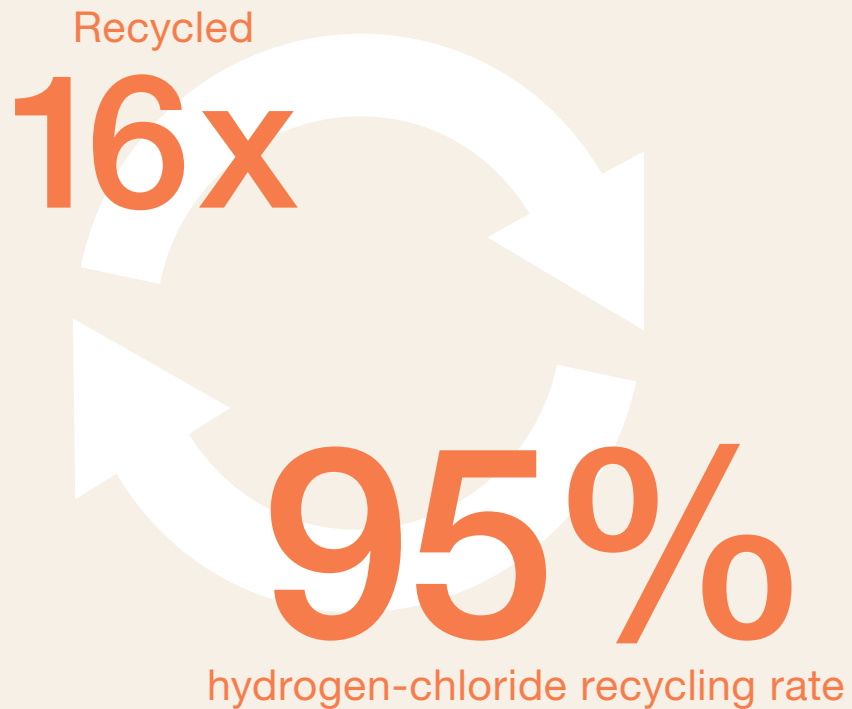
initiative, our environmental protection measures often go beyond what is legally required. WACKER continuously works on improving its production processes to conserve resources.





## What else can we use our by-products for?

WACKER's integrated production system  
uses by-products as starting materials  
for making other products.



WACKER's integrated production system is its greatest strength. The WACKER Group's key competitive advantages include the highly integrated material loops at its major sites in Burghausen, Nünchritz and Zhangjiagang. Basically, integrated production involves using the by-products from one stage as

starting materials for making other products. Auxiliaries required for this process, such as silanes, are recycled in a closed loop and we utilize waste heat from one process in other chemical processes, enabling us to reduce or prevent emissions and waste.





Chlorine electrolysis represents the starting point of an extremely comprehensive integrated production system.

WACKER adopts a variety of approaches to recovering energy – from solar energy to hydroelectric power stations and captive combined-cycle gas turbine plants.





## How do we improve our energy efficiency?

We aim to have reduced WACKER's specific energy consumption by 2022.

**-11%**  
2013–2022

**-22%**  
2007–2012

**-33%**  
2007–2022

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. WACKER is therefore also continually improving

the energy efficiency of its processes. This enables us to remain globally competitive, cut our carbon dioxide emissions, and support climate protection.





# What are we already doing well?

Research



million

spent on R&D in 2014



projects

were handled by WACKER scientists based on more than 40 technology platforms in 2014

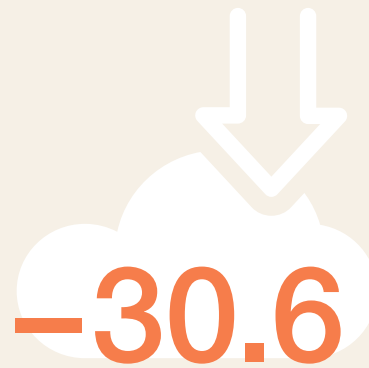


## Environment



million

invested in environmental protection



%

reduction in dust emissions in 2014 compared to 2013

## Society



million

in donations and sponsorships



teachers

received training in how to use the CHEM<sub>2</sub>DO experiment kit



# How can we make our supply chain more sustainable?

Taking the initiative: by the end of 2016, we aim to have assessed the sustainability performance of our main 400 suppliers as part of TfS.




Scan the QR code to get further details.

WACKER desires to strengthen its commitment to sustainable business practices in the supply chain. To this end, the company joined the chemical industry's "Together for Sustainability" (TfS) initiative in January 2015. Established in 2011, the organization aims at developing a global program for responsible

procurement of goods and services and improving the ecological and social standards of suppliers. By the end of 2016, we aim to have assessed the sustainability performance of our main 400 suppliers as part of TfS.





Our supplier management team is another area that focuses on sustainability. Our suppliers number approximately 11,500 (with 10,500 serving in the Technical Procurement & Logistics department and 1,000 Raw Materials Procurement).

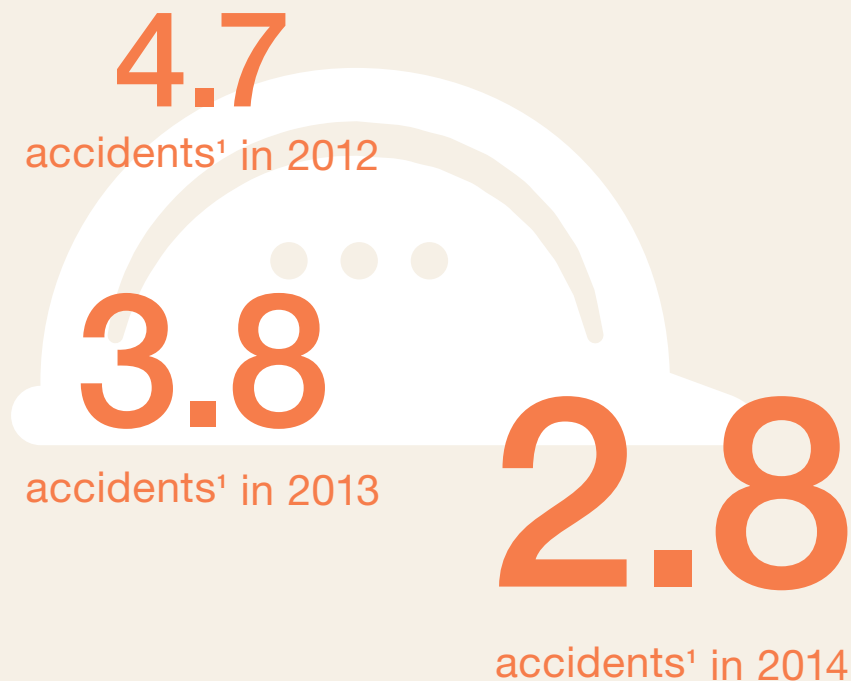


Protective work clothing in the Burghausen site's reaction safety lab. Our employees' health and safety are WACKER's greatest assets.



## What does safety mean to us?

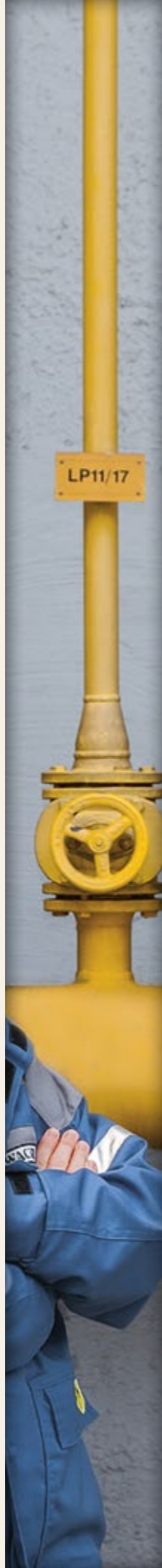
We operate a groupwide safety management system.



<sup>1</sup> Accidents leading to at least one work day missed per 1 million hours worked

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. Systematic workplace safety includes the regular evaluation of hazards and work-area monitoring. In 2015, our goal is to

reduce our groupwide accident rate (the number of workplace accidents per million hours worked) to below 2.0. WACKER ensures that its products are safely stored and transported. Before loading vehicles, we carry out stringent checks on them, especially if they are carrying hazardous goods.







# How do we promote diversity, inclusion and equal opportunity?

As a global company, WACKER operates in international markets and multicultural environments. Holding each employee's skills and dedication in high regard, we are convinced that diversity and inclusion enhance our company's performance.

We have set ourselves the goal of significantly increasing the proportion of women in middle and senior management positions over the medium to long term.



WACKER received several "Top Employer" awards.



We offer all our employees opportunities for additional training



WACKER will remain innovative and competitive as long as it has highly-skilled employees. Personnel development at WACKER both seeks to cultivate employees' strengths and targets specific groups. We encourage our employees to engage in lifelong learning and to remain open to change – especially since we have to adjust to longer working lives.

We are convinced that diversity and inclusion enhance our company's performance. We thus view

human diversity as an asset. We oppose discriminatory or derogatory 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. Studies and surveys show that WACKER ranks among the top most attractive employers and that, in a sector-wide comparison, it has a very good reputation, based primarily on trust.



At WACKER's Burghausen site, the teams of safety engineers and safety managers are led by two women: Susanne Ackermann (left) and Carola Schock are responsible for preventing accidents at the site.





For some children, attending school in Kosgoda involves a long journey every day. WACKER's relief fund provides their school with funding.





## How do we help people help themselves?

Following the 2004 tsunami, we set up the WACKER HILFSFONDS (relief fund).  
A total of €1 million had been donated to the relief fund over the ten-year period to the end of 2014.



Scan the QR code to get further details.

Charitable and outreach projects to help children and young people represent a pillar of our social commitment, while the WACKER relief fund (WACKER HILFSFONDS) provides support to victims of natural

disasters and helps rebuild devastated regions. As part of our social commitment, we seek enduring partnerships, focusing our investments preferably on long-term projects.



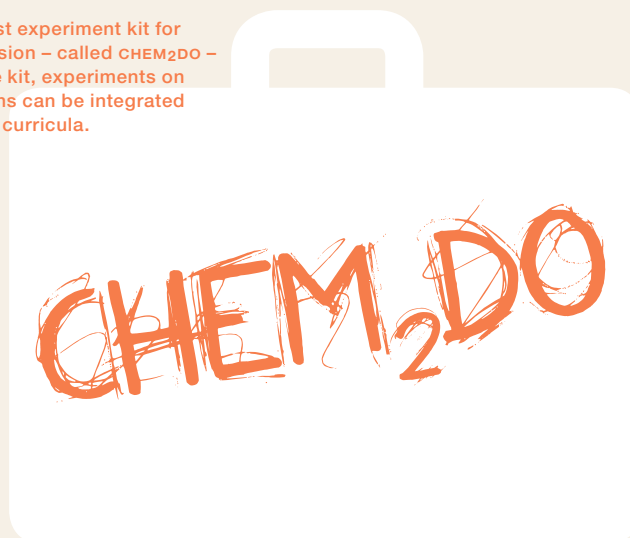


# How do we make chemistry fascinating for young people?

WACKER needs committed scientists and engineers if it is to remain competitive.

## Experiment Kit

WACKER developed its first experiment kit for schools in 1992. The new version – called CHEM<sub>2</sub>DO – came out in 2012. With the kit, experiments on silicones and cyclodextrins can be integrated into the school curricula.



Scan the QR code to get further details.

Companies can only enjoy economic success if they are trusted by society, which is why we take our social responsibilities seriously, especially in communities near our sites. Training young people in the natural sciences is especially important to us, because we will need dedicated scientists and engineers if we are to remain competitive.

Examine, experiment, explore – and acquire a critical educational foundation in the process. WACKER's new experiment kit for schools, CHEM<sub>2</sub>DO, fulfills this

criterion. Designed for junior and senior high school students, the kit contains a total of eight experiments involving silicones and cyclodextrins. Chemistry teachers who want to do the experiments in class receive training at teacher-training centers run throughout Germany by the Society of German Chemists and at select universities. WACKER hopes that CHEM<sub>2</sub>DO will spark an interest in chemistry among young people and provide chemistry teachers with teaching aids featuring innovative materials.

WACKER wants children and young people to be excited about technology and the natural sciences. After all, as a chemical company, we are going to need outstanding scientists in the future.





[www.wacker.com/sustainability-report](http://www.wacker.com/sustainability-report)

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The contents of this brochure apply to men and women alike even if gender-specific words (e.g. "he" or "she") are used for simplification. This brochure is printed on recycled paper.



“Sustainability has long been central  
to WACKER’s business model.”

Dr. Rudolf Staudigl  
President & CEO of Wacker Chemie AG



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