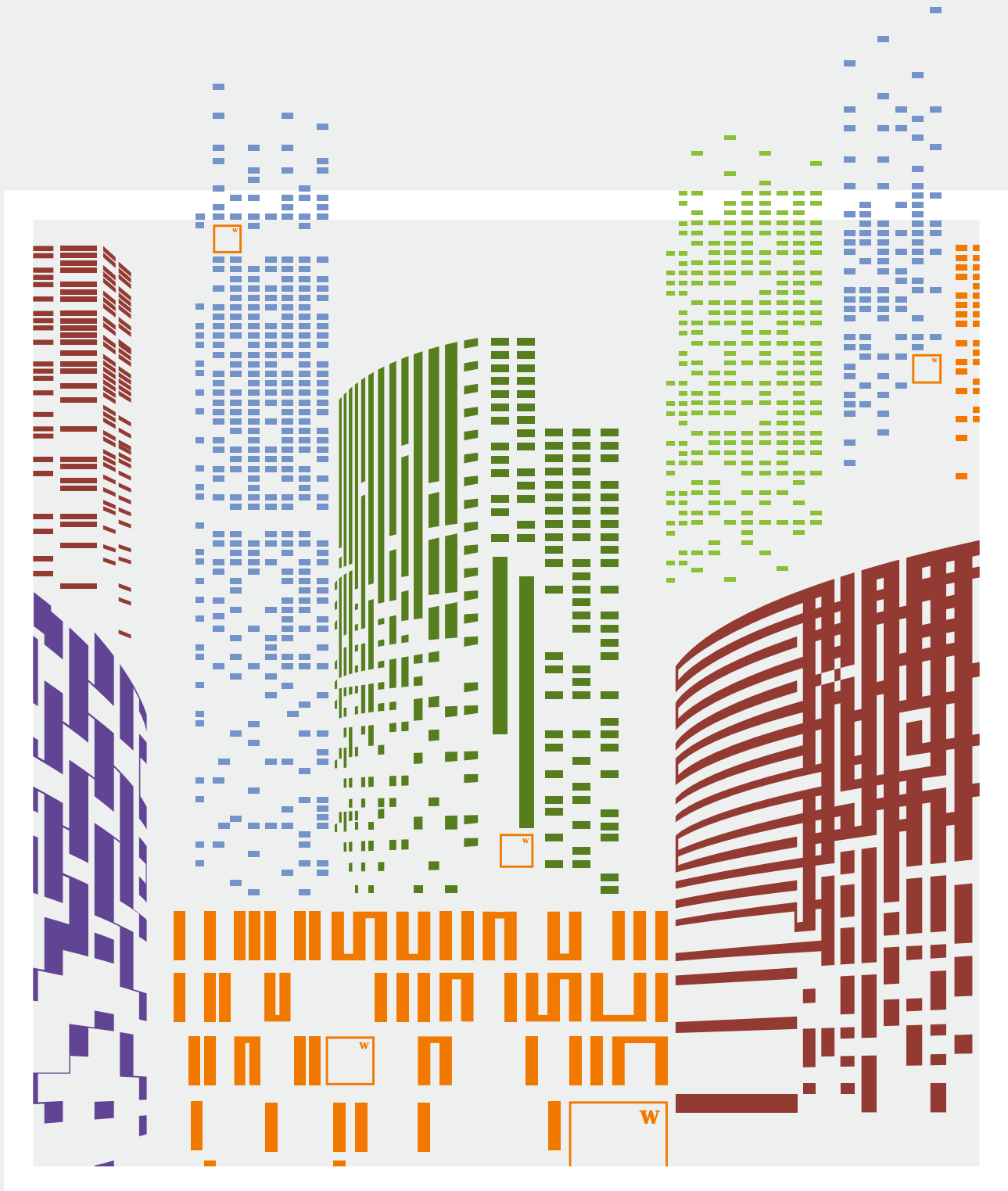


The Future of
How We Build and Live

2019



As an innovative chemical company, WACKER makes a vital contribution to improving the quality of life around the world. We want to continue developing and supplying solutions that meet our own expectations – namely to add value for our customers and shareholders, and to achieve sustainable growth.

WACKER at a Glance

€ million	2019	2018	Change in %
Results/Return			
Sales	4,927.6	4,978.8	-1.0
EBITDA ¹	783.4	930.0	-15.8
EBITDA margin ² (%)	15.9	18.7	n.a.
EBIT ³	-536.3	389.6	n.a.
EBIT margin ² (%)	-10.9	7.8	n.a.
Financial result	-54.9	-65.2	-15.8
Income before income taxes	-591.2	324.4	n.a.
Net result for the year	-629.6	260.1	n.a.
Earnings per share (basic/diluted) (€)	-12.94	4.95	n.a.
ROCE (%)	-11.3	5.9	n.a.
Financial Position/Cash Flows			
Total assets	6,491.0	7,118.7	-8.8
Equity	2,029.0	3,145.5	-35.5
Equity ratio (%)	31.3	44.2	n.a.
Financial liabilities	1,258.9	997.2	26.2
Net financial debt ⁴	713.7	609.7	17.1
Capital expenditures ⁵	379.5	460.9	-17.7
Depreciation/amortization and impairments	-1,319.7	-540.4	>100
Net cash flow ⁶	184.4	86.2	>100
Research and Development			
Research and development expenses	173.3	164.6	5.3
Employees			
Personnel expenses	1,253.8	1,231.5	1.8
Employees (December 31, number)	14,658	14,542	0.8

¹ EBITDA is EBIT before depreciation/amortization and impairments.

² Margins are calculated based on sales.

³ EBIT is the result from continuing operations for the period before interest result and other financial result, and income taxes.

In 2019, depreciation/amortization and impairments reflected the impairment charge of €760 million on the fixed assets of WACKER POLYSILICON.

⁴ Sum of cash and cash equivalents, noncurrent and current securities, and noncurrent and current financial liabilities.

⁵ Intangible assets, property, plant and equipment, investment property, excluding right-of-use assets.

⁶ Sum of cash flow from operating activities and cash flow from long-term investing activities (before securities).

Annual Report 2019

WACKER



The Future of How We Build and Live

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February

Saxony's State Governor Michael Kretschmer visited WACKER's site in Nünchritz, where he talked to company executives, plant management, the employee council, and employees.



March

WACKER attended the European Coatings Show 2019 in Nuremberg, presenting new polymeric binders, pyrogenic silicas and silicones for paints, adhesives and construction solutions. The company also focused on polymeric binders based on renewable raw materials.

June

WACKER dedicated a new production line for silicone elastomers at its Zhangjiagang site in China.

August

German Family Affairs Minister Franziska Giffey visited the WACKER site in Nünchritz, Saxony, where she spoke with WACKER Executive Board member Dr. Christian Hartel and employees about the company's family-oriented personnel policies.



Key Events 2019

September

WACKER acquired a stake in British battery material specialist Nexeon Ltd., thus intensifying WACKER research into silicon-based materials for high-performance batteries.

Following a 20-month construction phase, WACKER opened a new spray dryer in Ulsan, South Korea, for manufacturing dispersible polymer powders.

October

WACKER presented innovative silicones at the K 2019 international trade fair for plastics and rubber. Event visitors were impressed by the improved product and processing properties of liquid and solid silicone rubber grades – which, for example, are self-adhesive, offer greater fire protection, and are more electroactive.

WACKER presented the Alexander Wacker Innovation Award to two employees for the development of CAVACURMIN®. This nutritional supplement contains curcumin, an anti-inflammatory, antibacterial extract of turmeric. The cyclodextrins in the supplement allow the body to absorb the curcumin much faster.

WACKER brought a pyrogenic silica manufacturing plant on stream at its us site in Charleston, Tennessee – a move that expands production there.



November

Wacker Chemie AG opened a plant for manufacturing silicon metal at its site in Holla, Norway. The Group invested roughly €100 million in the new plant, which was built according to the most modern standards, resulting in an exceptionally efficient facility with low maintenance requirements.

A key project for digital communication was completed when WACKER relaunched its website. The technology, content and structure of the Group website were all completely updated.

President & CEO Dr. Rudolf Staudigl and Site Manager Dr. Dieter Gilles welcomed German Minister of Finance and Vice Chancellor Olaf Scholz to the Burghausen site. Mr. Scholz learned about silicon deposition processes and about the significance of WACKER POLYSILICON products in protecting the climate.



The Future of How We Build and Live



No matter where in the world buildings are being constructed, quality requirements are rising. More emphasis is being placed on efficient construction methods, sustainability and high-tech construction materials. Every construction project offers an opportunity for improving the quality and sustainability of the buildings that surround us – and that is as true for new buildings as it is for maintenance of existing structures. In recent years, WACKER has consistently geared its product portfolio toward these trends, making it an important partner for the global construction industry. The products we supply for construction and housing applications alone generate €1.7 billion – roughly 35 percent of Group sales.



Construction Technologies

Solutions to Global Challenges

The scope of the challenge is mammoth: according to the United Nations, cities will need to house 2.5 billion new residents in the next 30 years. By 2050, over two-thirds of the world's population will be living in cities, including future megacities like Luanda (Angola), Hyderabad (India) or Ho Chi Minh City (Vietnam).

Cities already produce three quarters of all CO₂ emissions, even though they only account for 3 percent of the Earth's landmass. The number of buildings in the world is expected to double between now and 2060. The challenge is obvious: we need livable metropolitan areas where residents do not live at the expense of coming generations. There is no alternative to sustainable urban planning. The battle against climate change will be decided in cities.

The construction industry plays a crucial role here. According to the International Energy Agency, residential buildings and offices are responsible for one-third of the world's energy consumption. The Intergovernmental Panel on Climate Change reports that, in order to limit long-term global warming to 1.5 degrees Celsius, building emissions will need to drop by 80 to 90 percent. It could happen: with modern heating systems, intelligent sensors, a transition to renewable energy and houses that make optimum use of solar energy. Effective thermal insulation alone can save up to 70 percent of the energy needed for heating or cooling a building.

For now, however, urban areas are growing at the expense of people and nature. The construction boom in emerging markets is depleting even resources that seem inexhaustible. Take sand, for instance. In many places, the most important raw material for the construction industry is in short supply. While there may be vast quantities of sand in the desert, it is not suitable for use in concrete or mortar. As a result, sand is extracted from rivers, lakes and the oceans – a process that is often unregulated and excessive.



A report published by the United Nations Environment Program spells out the dilemma: cities need more and more sand for building roads and housing. Beyond the city limits, however, unregulated sand mining pollutes the groundwater, erodes river banks and deprives fishermen of their livelihood. An international “sand mafia” earns its money from illegal mining, and UN experts are demanding a global regulatory framework.

Modern construction technology can help preserve natural resources. The use of binders in tile adhesives, for instance, can save enormous quantities of sand and cement. A simple calculation shows how significant this is: modern adhesives like these use up to 80 percent less sand and cement than traditional mortar. Moreover, four out of five construction sites around the world still use the traditional thick-bed technique for laying tiles. That represents huge potential for savings – both in terms of money and time.

Productivity is an important issue for the future of the construction industry, which has recognized the key role that digital processes and automated production play in this regard. The goal is to build better, faster and more



c

cost-effectively. China is producing more and more standardized, industrially prefabricated components that can easily be assembled on site, saving time and effort, and making urban living affordable for the middle class.

Could these buildings one day be built entirely using digital technologies? Initial experiments are underway. Robots can already build walls and work without a break. 3D printers can create enormous domes, while the Massachusetts Institute of Technology has a host of small construction robots that rotate on their own axes to weave stable fiber-glass tubes several meters tall.

Whether in Cambridge, Addis Ababa or Paris, researchers and developers the world over are working on creative ideas that take a non-traditional look at how we will build and live in the decades to come.

Yet as the debate over sustainability continues, more and more attention is being paid to the upkeep of infrastructure. In rapidly growing metropolitan areas, where older buildings, roads and bridges used to be frequently torn down and rebuilt, innovative materials can now be used

to protect or renovate them. These materials can also be used as sealants for canals, water pipes and reservoirs to prevent the loss of precious drinking water.

No one doubts that global challenges are complex and will presumably grow even more complex. Globalization does not automatically lead to the same problems and solutions on every continent. On the contrary, it seems that differences surrounding identities and ideas are actually growing in our globally interconnected world. The paths we take to greater sustainability will differ as well.

Change is always risky at first, threatening our status quo over the short term. In the long term, however, it opens up opportunities. And adaptable, flexible, tailor-made solutions will allow us to take advantage of those opportunities.

- a

—

Testing a new dispersion for low-emission interior paints
- b

—

Solar panels allow high-rise facades to generate sustainable electricity
- c

—

Shanghai is one of the world's fastest growing metropolitan areas

Building the Future

WACKER Products Play a Critical Role



High-rises
Insulation and heating/cooling

Train stations, multipurpose facilities and conference centers
Sealing flat roofs; smooth, hard-wearing floors

Bridges
Protection from moisture and road salt

Solar panels
Sustainable energy generation

Canals and irrigation systems
Preventing water loss

Urban housing
Facade design and preservation



Building on Sustainability – with Silicones and Polymers



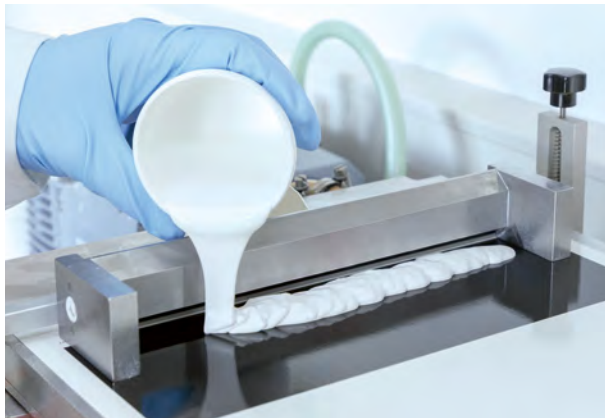
a

a
—
Pilot reactor in Nanjing, China, for developing new dispersions

b
—
Silicones make concrete water-repellent



b



c

c
—
Testing an interior paint in which the dispersion is partly based on potato starch



d

d
—
Production site for polymeric binders in Ulsan, South Korea

d

Weather is becoming more extreme. According to the World Meteorological Organization, the years from 2010 to 2019 were the warmest decade since record keeping began in 1850. In November 2019, the European Union declared a climate emergency – as had other countries and municipalities prior to that.

The complexity of the task makes climate protection an ambitious mission. Yet there is a great deal that can be done beyond altering our political trajectory. WACKER's innovative construction chemicals contribute to more sustainable buildings and homes.

MISSION 1:
Consume Less –
Use Renewable Raw Materials

Anyone wanting to build more sustainably needs to take one lesson to heart more than any other: reduce your consumption of raw materials. Today's new technologies and materials make that possible. One very simple example from our everyday lives illustrates how that works. Tile adhesives are used in our bathrooms, kitchens, swimming pools and workshops. "Our new binders allow tile installers to use the modern thin-bed method," explains Dr. Tobias Halbach, who develops new technologies for construction applications at the WACKER POLYMERS division. This means that builders use less tile adhesive and work more economically and sustainably. The thin-bed method requires a layer of adhesive just two to six millimeters thick, whereas with the thick-bed method, the adhesive layer can be up to 30 millimeters thick. The thick-bed method is still used at four out of five construction sites worldwide, revealing a great deal of potential for conserving raw materials.

Dispersible polymer powders are capable of more than that, however. As Halbach explains, "Combining the thin-bed method with about 3 percent of our binders is all it takes to reduce consumption of sand and cement by up to 90 percent." Plus, he notes, many tile adhesives require additives to ensure a bond and prevent sagging. "We've developed our binders to the point that we can dispense with some of these additives without sacrificing quality," says Halbach. That feature is important for one current trend in particular: large tiles are very popular at the moment even though they are more difficult to install. The experts at WACKER addressed this by developing dispersible polymer powders that make their adhesives highly resistant to sagging. The adhesive, in other words, does not drip when applied on walls. At the same time, the dispersible polymer powder also lends the cured tile adhesive the flexibility it needs to absorb stress – an important characteristic if tiles are to resist shocks and breaking.



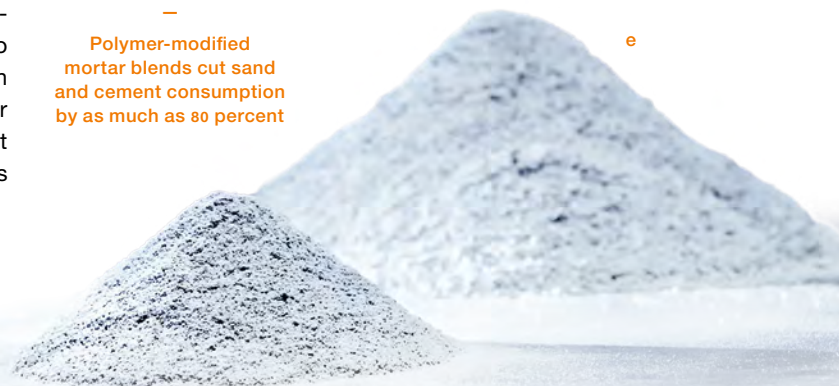
We've developed our binders to the point that we can dispense with additives without sacrificing quality.

Dr. Tobias Halbach

Another industry trend is the increasing emphasis that builders are placing on materials made from renewable resources. WACKER offers solutions here as well. Environmentally sustainable solutions are carrying the day more and more often, particularly for interior wall paints. "We've even created a new product line for polymer dispersions based partially on renewable raw materials: VINNECO®," says Dr. Markus Busold, who is responsible for strategic marketing within the WACKER POLYMERS division. "We use bio-acetic acid to create these kinds of binders." Bio-acetic acid is a byproduct of the woodworking industry, which means it is produced without cutting down any additional trees. The trees serving as the base material for the bio-acetic acid are from certified forests located within a radius of 400 kilometers of WACKER's Burghausen site – the acetic acid that WACKER uses, in other words, is based on the PEFC® system for sustainable forest management. "Our bio-acetic acid is identical to that obtained from fossil-based raw materials," Busold explains. In subsequent steps, WACKER uses this material to produce vinyl acetate-ethylene, or VAE for short. When used as a binder, the polymer dispersion optimizes cohesion between all of the components in wall paints and ensures that the paint will remain on the wall permanently when applied.

The market for biobased paints and coatings is growing – at an anticipated average rate of over 4 percent per year between now and 2024. For this reason, WACKER has

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—
Polymer-modified mortar blends cut sand and cement consumption by as much as 80 percent





**The better a building's insulation, the less heat it requires.
The use of an external thermal insulation composite system, or ETICS,
can reduce energy consumption by up to 30 percent.**

Dr. Tobias Halbach

developed another process for producing binders from renewable raw materials. “To that end, we’ve been cooperating with Dynaplak, a Dutch company which uses plant-based starch. The starch accumulates as a residual product of potato processing,” Busold says. This natural polymer possesses binding properties that the experts at Dynaplak optimize. “We combine the refined starch with our VAE polymers to create a new hybrid binder,” he explains. The advantage here is that the starch reduces the proportion of VAE required by one-third – and that, in turn, reduces consumption of fossil raw materials.

MISSION 2:

More Energy Efficiency – Less Carbon Dioxide

Protecting the climate also means using energy more efficiently and releasing fewer greenhouse gases. Over half of the energy that buildings need is in the form of heat, and much of that heat is lost – especially through the facade. “The better a building's insulation, the less heat it requires. The use of an external thermal insulation composite system, or ETICS, can reduce energy consumption by up to 30 percent or more,” says Halbach. When installed on a building's exterior, these systems prevent walls from cooling too much in winter or heating up unnecessarily in summer. For the thermally insulating properties to have their full effect, adhesion between the individual layers of the composite system has to be firm. “Our binders make sure that happens,” he explains. At the same time, the polymers also make the adhesive mortars and renders/plasters flexible, which is why WACKER binders are the key to an insulating system that remains stable over the long term.

Silicones from WACKER likewise play an important role in building insulation, where they make the insulating materials used – glass wool or mineral wool in particular – hydrophobic, i.e. water-repellent. “Everyone understands the benefit: a dry sweater keeps you warmer than a wet one,” says Dr. Rudolf Hager, who heads the Construction Chemicals unit at WACKER SILICONES. The numbers back that up: a single square meter of damp, uninsulated brick wall increases energy consumption by twelve liters of heating oil per year. For a single-family home with an exterior surface of roughly 180 square meters, consumption jumps to more than 2,000 liters of heating oil annually. Because mineral wool is non-flammable, it is an extremely popular

insulating material. Products made with biobased binders do not tolerate moisture, however. For this reason, WACKER experts have developed silicone emulsions that protect mineral wool from moisture and thus from microorganisms. As Hager notes, “Our silicones do more than just improve the insulating properties of the material – they also make it possible to use mineral wool in a damp environment.”

External insulation is not right for every facade – listed buildings, whose appearance cannot be modified, are one example of this. Silicone resin emulsion paints and silicone-based water repellents from WACKER can still be used in these types of structures to reduce heat loss. The reason? Silicones keep facades dry. They also leave vapor permeability unaffected. “The facade can breathe,” he says. “That's important in terms of a good indoor climate, and it makes the building fabric last longer.”

MISSION 3:

Fewer Harmful Substances – Healthier Living Space

Building more sustainably also means using as many non-toxic products and ingredients as possible. Minimizing the use of harmful substances is WACKER's number one priority. “At the same time, however, we still aim to maintain at least the same level of quality and functionality,” says Dr. Arndt Schlosser, who heads up the Sealants and Adhesives unit within WACKER SILICONES. “Wood-flooring adhesives are a good example of this: thanks to hybrid polymers from WACKER, they can now be formulated without any isocyanate or solvents. Formulations don't need tin catalysts anymore either.” Schlosser's team has already developed additional applications for hybrid polymers: liquid waterproofing systems. These watertight, seamless, continuous membranes protect the building fabric – ranging from below- and above-ground walls, balconies and patios all the way up to the roof – preventing damage caused by moisture. In these applications, they can replace conventional sealing systems that contain substances of toxicological concern or volatile organic compounds (VOCs). “In developing our hybrid polymers, we now have an innovative sealing system that contains no plasticizers or solvents,” Schlosser explains. The sealing system forms a barrier to water, one of the greatest enemies of buildings, defending the latter from mold and improving thermal insulation.



a

a

Dubai Marina: the new quarter features some 200 skyscrapers intended for up to 150,000 residents

b

Interior wall paints in powder form eliminate the need for biocides

c

Insulated facades cut energy consumption by one-third

b



c





A

Adhesives

Silicones and polymers make adhesives functional, versatile and sustainable.

B

Architectural Coatings

This polymer technology combines high product performance with low emission values.

C

Paper

Vinyl acetate is ideal for paper and board applications.

D

Sealants

Silicones ensure airtight windows

E

Technical Textiles

VINNAPAS® offers flexible solutions to meet the challenges of the nonwovens market.

F

Carpeting

Polymeric dispersions optimize the strength and flexibility of carpets.

There are numerous applications today where builders can turn to solvent-free adhesives and sealants from WACKER. Alkoxy-based silicone sealing compounds can be used for integrating window frames into masonry, sealing glass and doors, or installing new kitchen countertops. The experts at WACKER are constantly working to enhance their formulations. “We’ve formulated our products to make them more environmentally compatible and have even improved their curing behavior,” he points out. At the same time, the resulting joints stand up to the toughest demands, whether purely mechanical or caused by temperature fluctuations. In this way, the silicone sealing compounds help extend the life of the whole building.

While water may be the enemy of buildings, most wall paints do contain water-based binders. “The drawback here is that water provides a breeding ground for microbes and bacteria,” Busold explains. This is why biocides are usually added to increase the paint’s shelf life. As the painted wall dries, however, the biocides escape into the

ambient air. The experts at WACKER have now developed an interior wall paint in powder form. “Now we can stop adding preservatives and biocides,” he observes. This is because powder paints are not dissolved in water again until just before they are applied to walls.



We’ve formulated our products to make them more environmentally compatible and have even improved their curing behavior.

Dr. Arndt Schlosser

As a result, all that escapes when they dry is water. Another advantage of the powder form is that it does not freeze in cold conditions or thicken in response to heat, as traditional wall paints do. Each mission harbors its own unique challenges. Taken together, they all contribute to greater sustainability and help advance efforts to protect the climate.

a, b

When it comes to interior paints and wood-flooring adhesives, solutions from WACKER help create a healthy indoor climate

a



b



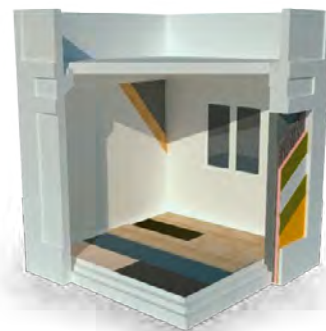
The Dubai Model House Project

Sustainable construction in the Middle East is the goal that brought the WACKER Group and state-owned Dubai Central Laboratories (DCL) together. The story behind the initiative begins with Energy Strategy 2050 – a program launched by the government of the United Arab Emirates with the aim of increasing the proportion of clean energy in the overall energy mix to 50 percent by 2050 and reducing the carbon footprint of energy generation by 70 percent.

The project included a one-year study on two small model houses. Beginning in August 2018, the study allowed researchers to compare conventional and sustainable construction materials. One house was not insulated; a standard paint was used for its interior and exterior walls; and its doors and windows were sealed with a standard sealing compound. On the sustainable house, by contrast, the team installed an external thermal insulation composite system. The paint used for the facade provided protection from moisture and environmental influences. The team also applied a polymer-modified cementitious waterproofing membrane to the floor, and on top of this, they installed a layer of tiles using the thin-bed method. The interior walls received a coat of low-odor paint requiring no organic solvents. A highly durable, weather-resistant external sealant was applied around the doors and windows.

Air-conditioning systems kept the temperature at 23 degrees Celsius in both houses. The DCL experts then recorded energy consumption, interior temperature and humidity, ambient temperature and humidity, and volatile organic compounds (VOCs) for each.

Results were available after the one-year test phase, with the sustainably built model house performing much better than the house built with traditional materials. One particularly impressive finding: energy consumption for the insulated model house was nearly 60 percent lower than that of its conventional counterpart – thus reducing CO₂ emissions by an equivalent amount.

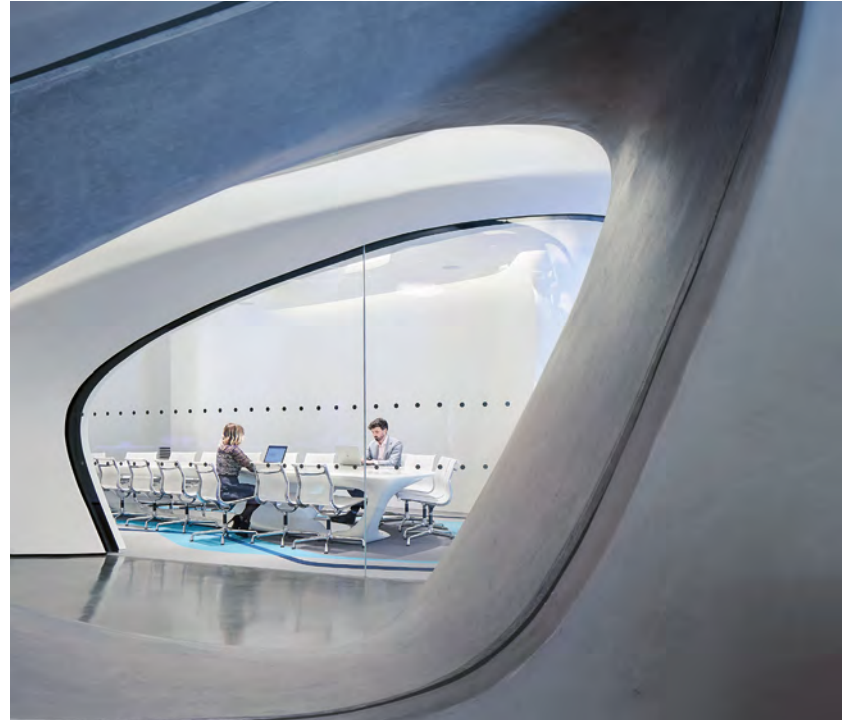


Protecting and Preserving

WACKER Products Make a Vital Contribution

Roca Gallery

British architect Zaha Hadid (1950-2016) was the first woman to win the architectural equivalent of the Nobel Prize – the Pritzker Architecture Prize – in 2004. She was known for designs that pushed the boundaries of what was structurally feasible. One such example is the Roca London Gallery – the showrooms of a Spanish bathroom outfitter. The gallery’s architecture of soaring shapes is intended to symbolize the way water flows. The structural challenges involved were enormous: the sections of architectural concrete formed curves on several axes. What’s more, their surface needed to be absolutely uniform and flawless, and adherence to the pattern of joints defined in the design was essential. Plus, the CEton elements (concrete-embedded composite) had to be as lightweight as possible so as not to overload the structure of the existing building. “That’s structurally not possible” was what several manufacturers of fiber-reinforced concrete first said when they saw the drafts. Only after a Bavarian specialist company used WACKER’s ETONIS® polymer binder to modify the architectural concrete was it possible to render the construction material moldable, give it the necessary mechanical properties and so achieve Zaha Hadid’s spectacular design.



14



Bebenroth Tunnel

Can you imagine a concrete roadway that allows thousands of liters of water to drain away in just a few minutes? A polymeric binder makes such a road possible, as a pilot project by Deutsche Bahn – Germany’s national rail company – demonstrated in the 1,030 meter Bebenroth Tunnel close to Göttingen, central Germany. About 16 centimeters thick, the road surface is made of open-pored pervious concrete. This type of concrete is able to absorb astonishing amounts of water during torrential downpours, without forming a film on the surface. HeidelbergCement AG developed this road-surface coating with WACKER’s support. Pervious concrete is made up of aggregate stones broken into cubes measuring five to eight millimeters across, which makes them all roughly the same size. Because such gap-graded stones cannot be packed together tightly, cavities that hold water form: the same effect can be reproduced by pouring peas into a glass. The individual aggregate stones are bound by the cement only at certain points, thereby forming weak bonds. As a result, what you need to ensure the load-bearing capacity of the road surface is a high-performance polymer binder such as WACKER’s ETONIS® 260.

Budapest's Western Train Station

Opened in 1877, Budapest's Western train station is considered one of the Austro-Hungarian Empire's architectural gems. Recently, the station was completely and lovingly restored with EU funding. This magnificent neo-Baroque station was designed by the Paris-based architectural practice of Gustave Eiffel, who became a household name a few years later thanks to the world-famous tower bearing his name. A splendid terrazzo floor covered in floral ornamentation is located in the right wing of the building. A cementitious screed holds the multicolored aggregate stones together. As a result of its porosity, however, the floor surface absorbs spilled drinks, oils and other liquids. This caused staining that was extremely hard to remove. To prevent future stains, the floor, once cleaned, was treated with SILRES® BS 6920 from WACKER. This binder is an alpha-silane-terminated polyether and was optimized specifically for the impregnation of cementitious flooring. It penetrates deep into the floor, filling the pores and curing to a hard and non-combustible material that has both water-repellent and oil-resistant properties thanks to its chemical structure.



National Stadium, Beijing

The Chinese affectionately call it the Bird's Nest: curved steel girders with a total weight of 42,000 metric tons wrap around the national stadium in China's capital Beijing. They are reminiscent of intertwined branches. Hence the nickname of the sports facility, which today seats 80,000 spectators. It was built for the 2008 Summer Olympics, at which swimming star Michael Phelps won one gold medal after another and Jamaican Usain Bolt made sprinting history. The 33-meter-long, 22-meter-wide and almost 70-meter-high stadium was designed by Swiss architects Pierre de Meuron and Jacques Herzog, who also designed Munich's Allianz Arena soccer stadium. The well-known Chinese artist and architect Ai Weiwei was also involved in the design. Together, they looked for shapes and images beyond conventional stadium architecture that reference Chinese traditions and cultural characteristics. For example, the four floors of the stadium grandstand are divided into 12 areas. Each represents one of the signs of the zodiac in Chinese astrology. To protect the grandstand from environmental influences, the Chinese relied on WACKER's SILRES® BS impregnating silicone building-protection agent. The silicone prevents moisture and salts from penetrating and decomposing the concrete, which would otherwise cause the steel girders to corrode inside.





Tsing Ma Bridge

The Tsing Ma Bridge, one of Hong Kong's major traffic routes, sweeps across the Ma Wan Channel off the city's east coast. When it opened in 1997, its span of 1,377 meters made it the second longest suspension bridge in the world. By linking the peninsula to the island of Lantau, the bridge makes it possible for people to transfer quickly and conveniently to Hong Kong's Chek Lap Kok international airport, one of Asia's largest and most important passenger and cargo hubs. High-quality and extremely hard-wearing reinforced concrete was used in the bridge's construction. All the same, the material is affected by environmental influences such as the humid climate and the salt water swirled up in the spray. To prevent damage, the pillars and other load-bearing parts of the Tsing Ma Bridge were treated with a water-repellent silane cream from WACKER shortly after the bridge's completion. Penetrating deep into the concrete, this cream has been reliably protecting the bridge and its 206-meter pylons against corrosive salts, thus affording it lasting protection from damage.

Bode Museum, Berlin

The last time the Bode Museum in Berlin hit the headlines was in connection with a spectacular crime. During the night of March 27, 2017, thieves broke into the museum's coin collection and made off unnoticed with the one of the world's most expensive gold coins – the Big Maple Leaf, weighing 100 kilograms and measuring 53 centimeters in diameter. Opened in 1904 to commemorate what would have been the 73rd birthday of Emperor Frederick III, the Bode Museum of art and sculpture has no need at all for such hype. This magnificent building on the River Spree was conceived by its curator, Wilhelm von Bode, and built by Prussian court architect Ernst-Eberhard von Ihne. Every year, a quarter of a million visitors come to admire its sculpture collections – some of the oldest on display – and Byzantine art. Situated on the northern tip of the Museum Island, the Bode Museum is flanked by water on two sides. Over time, the building had suffered considerable damage, which led to its complete refurbishment and modernization between 2000 and 2006. The materials used to restore the building included high-performance products from WACKER. Silicone microemulsions made it possible to drain particularly endangered sections of the basement. In this way, the brick walls are protected against rising damp and hence further damage.



Fire-Protection Coatings

Modern, large-scale buildings are rising up higher and higher at a breath-taking rate, especially in metropolitan areas of Asia. The building and roof structures are often made of steel, like the ones shown here in Singapore's Gardens by the Bay park. This is because steel skeletons have a low dead load, but a high load-bearing capacity and are usually quick and easy to assemble. However, the taller or larger the building, the greater the importance of fire protection. To prevent the steel frames from buckling within minutes during a fire, they are provided with special fire-protection coatings. When a fire breaks out, the coating swells by 10 to 100 times its original thickness to form a thermally insulating foam jacket around the steel column. The buildings therefore withstand the flames longer, giving rescue teams precious time for evacuation. A special dispersion from WACKER serves as a binder, ensuring the necessary elasticity, strength and adhesion of the protective layer.



Dubai

Real Shelters from Desert Heat

The city of Dubai is iconic. Take its skyscrapers next to the beach: The Burj Khalifa, the world’s tallest building, reaches 828 meters and features 900 residential apartments. But the emirate contains more than picturesque architecture, explains Mohammed Sanaobar, Middle East and Africa Regional Technical Director for construction products and Head of WACKER ACADEMY in Dubai. “There are a tremendous range of residential choices. While there are the grand high-rise apartments overlooking the bay, there are also townhouses with multiple floors, private garages and yards that appeal to families,” says Sanaobar, a native of Dubai.



Our focus is not only on the product but on the application, using the best international standards and sustainable building practices for Dubai’s hot, humid landscape.

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Mohammed Sanaobar

In 2019, contracts valued at some 140 billion us dollars were awarded in the United Arab Emirates’ construction, infrastructure and energy sectors, making construction one of the region’s key industries together with oil and trade. After years of stagnation, this industry is once again on track for growth: experts estimate that the construction sector will grow five and a half percent a year until 2024. This applies to Dubai as well. The emirate is hosting Expo 2020 and has long-term plans to build apartments for 30,000 people on the exhibition site. Whether townhouse or apartment, what Dubai’s buildings must withstand is the weather. It’s the heat and humidity of its 40 °C-plus summers that builders first have in mind in this metropolitan area. “We have to build homes that can sustainably keep residents



a

Exterior paints undergoing a weathering test in Dubai

b



b

Mohammed Sanaobar (right) talking with his applications engineers

comfortable,” says Sanaobar, whose responsibilities include Africa’s fast growing construction sector. “But the main challenges for construction here are the enforcement of standards and lack of know-how. So our focus is on the application, using the best building practices for the hot, humid landscape.” Sanaobar sees science and business as partners in construction. In order to save resources, for example, Sanaobar and his WACKER ACADEMY training colleagues encourage customers, whenever possible, to lower the amount of cement in dry-mix mortars and to add dispersible polymer powders. This significantly enhances the properties of the mortar as well. It is particularly important to control the temperature inside buildings – which isn’t a surprise, given the temperatures usually encountered in Dubai. The cool air needs to circulate inside buildings, whereas the heat must stay outside. “As one example, we can accomplish this by using the right quality of exterior insulation and finish systems, layers of glass fiber mesh and hydrophobic mortar,” says Sanaobar. “A quality wall from corner to corner reduces the need for mechanical cooling.” For Sanaobar, WACKER ACADEMY is leading the emirate in implementing the best international practices for the local environment. “We are building not just homes – we are building the system of standards that will allow Dubai residences to be a symbol of the highest sustainable quality.”

Mohammed Sanaobar

Holding a degree in chemical engineering and an MBA, Sanaobar joined WACKER in 2006. He is Technical Director for the Middle East and Africa and Head of the company’s local WACKER ACADEMY branch.

Singapore

Building Taller, Faster and More Sustainably

When in Singapore, look to the skies: Residents typically live in one of this country's high-rise buildings of 30 floors or more. And there's good reason why this is so: Singapore is the third most densely populated country in the world. More than eight thousand people live in each of its square kilometers.



The government and urban developers attach great importance to buildings that offer high-quality architecture. At the same time, these buildings must be extremely functional and afford effective protection from dirt and moisture.

Veronica Wong

Veronica Wong knows this landscape intimately – and she also knows what builders and residents want. Wong, a Singapore resident for more than 40 years and who is also WACKER's Business Director for Construction Chemicals in Asia, supports builders by providing them with the best quality materials. "Singapore's buildings are known not only for their height, but for their quality and sustainability," she says.

Singapore has a very specific climate. "We enjoy summer all year-round," she says. And 'summer' in Singapore means hot weather with 80-85% humidity and temperatures that rarely drop below 30 degrees Celsius. What's more, there are brief, torrential downpours, which are sometimes even prolonged. "Building materials must withstand this environment," she explains. "Paints and construction materials have to repel water immediately and always over the long term to prevent structural damage." This is only possible with the use of water-repellent impregnating agents, especially for external facades. Mold and fungi pose another hazard in hot and humid regions. Whether in primers, paints, coatings or construction materials, "the polymers must be able to prevent the occurrence of mold in the first place. WACKER is a very much in demand as a partner, because we adapt products to meet these needs and use customer information in the development of new products."



Veronica Wong is responsible for WACKER's construction chemicals business in Asia



Facades in Singapore have to withstand high humidity levels

To protect building surfaces from dust and dirt, WACKER has developed silicone-based formulations, for example – which allow water-vapor permeability, thus enabling the masonry to 'breathe,' while also repelling contaminants.

WACKER customers particularly appreciate the region's technical competence center, which offers them tailored practical training courses about which products to use. This center lets customers familiarize themselves with the product range, giving them an opportunity to discuss their specific needs directly with WACKER experts and try out new approaches. "That gives WACKER a unique selling point."

Veronica Wong

Veronica Wong studied polymer science. After completing her master's degree at Loughborough University in the United Kingdom, she joined WACKER, where she is responsible for construction business across Asia-Pacific.

Mumbai

Mortar for Millions

India's population is growing, as are its major cities. In their search for better living conditions, more and more people are moving to places like Delhi or Mumbai. The fact that the housing market is facing huge demand poses challenges for construction companies and urban planners. Dr. Priti Pillay heads WACKER's construction polymers technical center in Mumbai. Here, she explains how India is going about the creation of living space.

Based on United Nations projections, India is set to surpass China as the world's most populous country by 2027. "The country now has 1.37 billion people. Experts predict that this figure will rise by another 273 million by 2050," says Pillay. Urbanization is a major challenge. Two-thirds of Indians still live in the countryside. But millions of people will be migrating to urban centers in the coming decades.

The demand for new housing is clearly on the rise: Residential construction in India is projected to rise by 6 to 7 percent annually through 2023. Demand for apartments is particularly high in major cities like Mumbai, Delhi and Bengaluru. Meeting demand isn't straightforward. Greater scarcities of sand are one reason why Indian construction companies are using new construction techniques. And building styles vary widely by region: Indians live in everything from stilted houses along coastal regions, simple bamboo huts in rural areas, as well as villas, and even skyscrapers in Mumbai. Construction companies therefore cater to local needs; and most construction workers are unskilled. Companies are also now obligated to meet government-mandated standards: Builders are under greater obligation to upgrade the quality of construction and improve on timeliness of project completion. Stricter environmental legislation and rising electricity prices are fueling the market for energy-efficient technology in buildings.

So how can the country meet these varied goals? "By ensuring more sustainable, longer-lasting and more energy-efficient construction," she explains. "In India, this means polymer-modified mortars based on dispersions or dispersible polymer powders," she continues. "As a result, this technology can minimize cement usage."

WACKER runs three technical centers in India. They give local tradesmen and customers an opportunity to get to know the new techniques, such as the use of polymer-modified cementitious mortars. "Our binders ensure optimum adhesion in skim coat when it is applied to



Dr. Priti Pillay heads the construction polymers technical center in Mumbai



We can use polymer-modified dispersions and dispersible polymer powders to ensure more sustainable, longer-lasting and more energy-efficient construction in India.

Dr. Priti Pillay

masonry and they stop moisture from entering it." Large tiles are another trend that poses challenges. Nowadays, this kind of tile is a status symbol for affluent residents. Innovative polymer grades are used to meet consumer needs. "Our binders make tile adhesives flexible, thus preventing crack formation in the tile. What's more, tiles adhere better to the wall," explains Pillay. Another advantage of using dispersions and dispersible polymer powders is that less material is needed to build apartments of high standards – i.e. residential space that is more durable, longer-lasting and more energy-efficient.

Dr. Priti Pillay

Based in Mumbai, Dr. Priti Pillay has been working at WACKER as a Senior Technical Service Manager for construction polymers for over a decade. After obtaining her M.Sc. in Chemistry, she gained an MBA in Marketing and a Ph.D. in Polymer Chemistry.

Construction – A New Era

Innovations for the Future

Enhancing Concrete and Cement

Concrete is one of our most important construction materials. As hard and durable as rock, it is formed when water is added to cement, sand and gravel, and can be used for building strong foundations, tall skyscrapers and bridges with soaring arches. But concrete is also exposed to a number of environmental influences. Moisture attacks it, with sea water and road salt potentially causing irreversible damage. To prevent this, buildings, bridges near the coast, and road tunnels must have reliable protection from water.

Silicones play a significant role in sustainable construction, because they make cement and concrete water-repellent. “They’re suitable for more than just treating the surfaces of finished concrete parts. When used as additives in concrete and cement production, silicones protect the structures from within,” says Wei Cai, a construction materials expert who gives advice to cement and concrete manufacturers across the globe. Another advantage is that the addition of silicone also allows manufacturers of concrete to use lower-quality sand and gravel that can be sourced locally. A silicone additive produced by WACKER is already used in India, the world’s second largest market for cement after China, and customers there have now manufactured several million metric tons of water-repellent cement. “Plus, that

cuts the electrical energy needed by up to 10 percent – another bonus in terms of sustainability,” says Dr. Abhijit Tarafdar, who developed the additive for Indian customers at the Amtala Competence Center. WACKER has also been exploring silicone additives in China, where another research laboratory for cement and concrete was opened in April 2019.

And on the other side of the globe, in Brazil, WACKER is likewise working to improve the quality of cement. “The composite cements used in Brazil are often blended with aggregates like fly ash and slag sand,” says Tobias Halbach, in charge of technology development for construction polymers at WACKER. This has an upside: it reduces the energy consumed during manufacturing, which, in turn, lowers CO₂ emissions. The quality of the cement suffers, however. This cement can nevertheless be used

with no drawbacks in dry-mix mortar applications thanks to dispersible polymer powders that WACKER has customized for the Brazilian market. These powders have been specially adapted to the regional variety of raw materials. “Our products can therefore compensate for variations in the reactivity of composite cements and optimize the setting behavior. That lets our customers produce high-performance, long-lasting tile adhesives with local raw materials,” he explains.



Buildings: Hot off the Press

“Creating buildings through 3D printing is pretty popular right now,” explains Christophe Berset, who works in strategic marketing for construction polymers at WACKER. “The idea is that computer-controlled production methods make a variety of shapes feasible and cost-effective to manufacture.” A 3D printer applies liquid mortar through a nozzle one layer at a time, after which the mortar sets and forms a stable plastic object. Berset and his colleagues, in partnership with the Technical University of Munich and Nanyang Technological University in Singapore, are working together to optimize

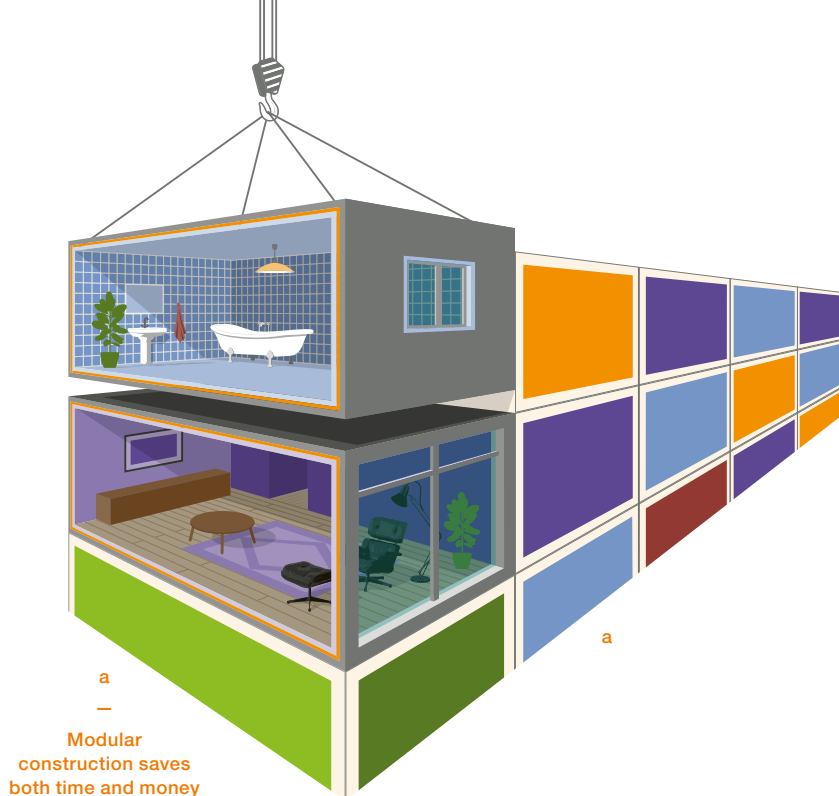
how polymers can increase the printed material’s durability and mechanical properties. The key difficulty lies in finding the right balance between the flow characteristics of the mortar and its setting speed. “The compound has to be a liquid that’s easy to pump when it’s in the printer tubing, but then when you apply it, it has to modify its rheology quickly so that the layers remain stable,” says Berset. “Our formulations can already do that really well.” The team is currently working on producing a variety of mortar formulations for producing high-quality, printed elements.

Building Is Going Modular

Demand for affordable housing is growing – especially in cities. A rise in construction costs, however, has led to a shortage of new or existing buildings in the affordable and mid-range price brackets. Modular construction is one solution to this problem. The approach involves pre-fabricating sections of buildings or even entire residential units, and then simply assembling them on site. “Wall elements, including windows and insulating layers, even entire rooms – bathrooms, for example – can be prefabricated,” explains Christophe Berset, who works in strategic marketing for construction polymers at WACKER. “The tiles, shower, and toilet are already installed in the wet rooms, which arrive at the construction site ready to plug in, as it were.”

When these kinds of units are mass produced, economies of scale come into play, significantly reducing production costs and hours worked on site. According to a McKinsey study, modular construction reduces costs by up to 20 per cent and can cut construction time in half. There are challenges, however: “Transporting the finished units produces an enormous amount of vibration,” Berset points out. “But our polymers lend tile adhesives, self-leveling flooring compounds and composite materials a degree of flexibility. Not only do the various modules arrive at the construction site undamaged – they also remain intact over the long term.”

Assembling elements like these has now become daily routine at many construction sites. Silicones and hybrid polymers play an important role in that, delivering a permanent bond for joints and walls. “As flexible sealants, they also balance the forces acting on the materials. That prevents cracks from forming due to seasonal temperature



Modular construction saves both time and money

fluctuations,” says Dr. Arndt Schlosser, responsible at WACKER for sealant and adhesive applications in the construction industry. “That keeps water from penetrating modular buildings so that they last a long time.” Another advantage is that no damage is done to the insulating layers of wall elements joined in this way. “But when you drill holes and screw in bolts, you generate cold bridging, and that compromises the thermal insulation,” he says, noting that WACKER has the modular construction trend firmly in its sights: “We watch the market very closely so that we can align our product development as much as possible with challenges in the industry,” he adds in summary.

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Recycling in Construction

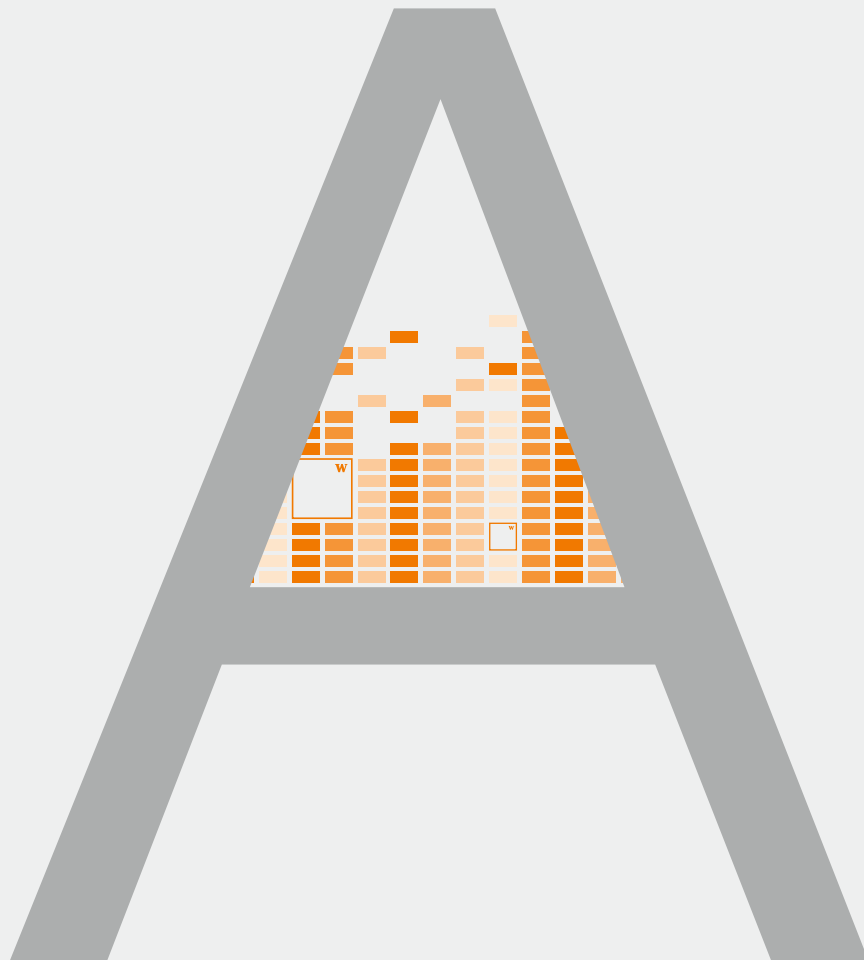
Sustainability is also the theme underlying the establishment of a shared innovation platform with the Karlsruhe Institute of Technology (KIT). WACKER is participating in this platform to foster dialogue among specialists about sustainable construction throughout the entire supply chain. The chemical company is also supporting the modernization and expansion of the KIT Material Library. The focus is on sustainable construction techniques using digitalized exhibits, for instance those made of recycled material (such as tiles), recycled glass or construction materials made of recycled paper or plastic. The library also serves as a source of information and ideas for use in developing new technologies in joint research projects in which renewable resources or recycled materials can be meaningfully combined and upgraded with polymers or silicones from WACKER.

Sustainable Cities

WACKER has been cooperating with Singapore-ETH Centre’s Future Cities Laboratory (FCL) since 2017. The cooperation focuses on how construction materials can be designed to be more sustainable for cities of the future. The spotlight is on functional polymers for enhancing renewable, locally available construction-sector raw materials. For example, WACKER and FCL experts are examining how they can use construction chemicals to make bamboo even more effective, viable and durable.

A future research project takes a similar approach: renewable mycelium-based materials will be refined for use in innovative building elements.

For Our Shareholders



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For Our Shareholders

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Dear Shareholders,

As expected, 2019 was a challenging year for WACKER. The main factors dampening our operating performance were substantially lower average prices for solar-grade polysilicon and price declines for standard silicones. These trends noticeably slowed Group sales and EBITDA (earnings before interest, taxes, depreciation/amortization and impairments). On balance, price effects reduced Group sales by €365 million. Sales came in at €4.93 billion, down 1 percent versus the previous year. EBITDA was 16 percent lower at €783.4 million. It included insurance compensation of €112.5 million for the damage related to the incident at our Charleston plant (USA) in 2017.

Contrary to our assumption at the beginning of 2019, solar-grade polysilicon prices did not recover in the second half-year. After adjusting our price outlook accordingly, we recognized an impairment charge of €760 million on our facilities. This not only impacted EBIT (earnings before interest and taxes), but also weighed on the Group's net result, where we posted a loss of €630 million.

Net cash flow in 2019 was positive at around €185 million and included about €100 million in insurance compensation. At the same time, we made a special payment of €70 million to the Wacker Chemie pension fund to help counter the low interest and discount rates that burden our pension obligations.

Net financial debt was influenced by the new accounting standard IFRS 16, which regulates the accounting of leases. This was the sole reason why net financial debt rose by €120 million to around €715 million.

On balance, 2019 was a year of weaker economic momentum. At WACKER SILICONES, business normalized after the market shortages of 2018. The division saw prices for standard silicones come under pressure. In addition, the inventory policies of customers slowed demand markedly.

As a result, sales and EBITDA contracted. At WACKER POLYMERS and WACKER BIOSOLUTIONS, performance was good given the challenging economic conditions. Both divisions generated sales and EBITDA growth.

In 2019, we brought two key investment projects to a successful conclusion. At Charleston in the USA, we started up a new facility for pyrogenic silica. The additional capacity strengthens our market position as a leading global producer of pyrogenic silica and meets our customers' growing demand. This investment is a first step in creating a fully integrated production site in the USA, the world's second-largest chemical market.

The second project was at Holla in Norway. Our new, ultra-modern furnace there produces silicon metal, a raw material for our silicones business. The new furnace increases the site's capacity by 40 percent. The expansion of our captive production capacity there makes us more independent of price fluctuations on raw-material markets and, at the same time, enhances our supply security.

In polysilicon, business was difficult – for several reasons. All stages of the supply chain face excess capacity and China's polysilicon manufacturers are subsidized by the state. Prices for solar-grade polysilicon continued to fall as a result. On top of this, Germany's higher electricity costs impeded earnings. We did not offset this trend fully, even though we sold more volume and cut production costs further.

Despite the unsatisfactory market situation, important signals point to a bright future for photovoltaics. First, the market will continue growing, with the number of newly installed solar arrays climbing worldwide. Second, the photovoltaic industry is indispensable for reducing global CO₂ emissions.

Irrespective of the Group's negative net result, the Supervisory and Executive Boards will propose a moderate dividend of 0.50 euros per share to the Annual Shareholders' Meeting in May. This proposal is a sign of our confidence in the company's future.

For WACKER, 2020 will be another very challenging year. It is too early to say whether world economic growth will gather momentum during the year. Nor can we reliably estimate, at present, to what degree growth will be slowed by the coronavirus outbreak in China. In the polysilicon market, conditions will remain difficult. We do not expect prices of solar-grade polysilicon to trend upward anytime soon. All these underlying factors hamper our business prospects.

Given the realities of the market, our overriding priority is to make WACKER more competitive for the future. Our “Shape the Future” project focuses on cutting costs significantly and on making our business structures and processes leaner and more flexible. We have set ourselves targets through to the end of 2022. Overall, we want to save around €250 million in costs. To achieve this, we are concentrating not only on lowering non-personnel costs, but also on cutting more than 1,000 jobs, mainly in the non-operational areas of the company. Most job losses will occur in Germany, which will account for around 80 percent of the total.

In 2020, we do not yet expect any noticeable improvements from this program. The one-off costs for implementing the measures involved are not included in our forecast, as they cannot yet be quantified.

In 2020, our operations are likely to benefit from slightly lower raw-material and energy costs. Overall, we expect sales to rise by a low-single-digit percentage. For EBITDA, though, we anticipate a decline. Earnings will again be affected by lower average prices for polysilicon and price declines for standard chemical products. Our earnings forecast also reflects the uncertainties of the general economic trend. Another reason for the projected EBITDA decline is a non-recurring effect from last year. In 2019, we received a one-off payment of insurance compensation for the damage incurred at our Charleston plant. In 2020, we expect Group net income to be positive again, after last year’s loss. At the end of February 2020, we rated the risk of a coronavirus pandemic as likely, with a potentially high impact on WACKER’s earnings and financial position.

Although the economic environment currently poses major challenges, we look ahead to the future, thinking and acting for the long term. That is reflected in our capital expenditures. At around €350 million, they will be on par with last year. The spending focus is on expanding our plants for intermediate and downstream products at our chemical divisions, particularly for specialties business.

We are doing everything we can to achieve a substantial reduction in our polysilicon production costs. At the same time, we intend not only to grow our market share with semiconductor-sector customers, but also to increase our polysilicon volumes for monocrystalline solar wafers.

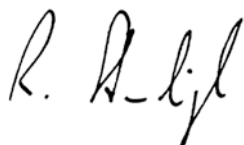
We have many advantages: an attractive portfolio, a strong presence in the world's key markets, divisions with leading market positions, and our innovative new products and technologies. We intend to use these strengths to drive the company's growth in the years ahead.

Innovation guides our business, enabling us to continue growing. Our ability to innovate is a key factor in securing a successful future, which is why we continue to invest in research and development. In 2019 alone, our R&D expenditure totaled more than €170 million.

Our employees are crucial to WACKER's future success. And they are responsible for our past successes. I would like to thank them all – also on behalf of the entire Executive Board.

We thank all our customers and suppliers for working with us closely and reliably. And I would also like to express my thanks to our shareholders for their open dialog with us and for the trust they place in our company. This trust is important to us, especially in difficult times. It is what motivates us to do everything in our power to ensure WACKER's long-term success.

Munich, March 2020

A handwritten signature in black ink, appearing to read 'R. Staudigl', written in a cursive style.

Dr. Rudolf Staudigl
President and CEO of Wacker Chemie AG

Executive Board



DR. CHRISTIAN HARTEL

WACKER POLYMERS
WACKER BIOSOLUTIONS

Human Resources
(Personnel Director)
Corporate Research &
Development
Intellectual Property
Corporate Engineering
Region: Asia

DR. RUDOLF STAUDIGL
President & CEO

WACKER POLYSILICON
Executive Personnel
Corporate Development
Corporate Communications
Investor Relations
Corporate Auditing
Legal
Compliance
Retirement Benefits

DR. TOBIAS OHLER

Corporate Accounting and Tax
Corporate Controlling
Corporate Finance and
Insurance
Information Technology
Procurement & Logistics
Region: The Americas

AUGUSTE WILLEMS

WACKER SILICONES
Sales & Distribution
Site Management
Corporate Security
Environment/Health/Safety
Product Stewardship
Regions: Europe,
Middle East

Report of the Supervisory Board



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DR. PETER-ALEXANDER WACKER
Chairman of the Supervisory Board of Wacker Chemie AG

Dear Shareholders,

Fiscal 2019 was no ordinary year for WACKER. The trade conflict between the USA and China slowed global economic growth and incurred high tangible and intangible costs. At the same time, we saw major economies protecting their companies against international competitors through state intervention, thus calling into question the principle of free trade.

In Asia, on the other hand, we see dynamic change, with competition intensifying in the chemical industry. Anyone who cannot keep up will lose their market share. For WACKER's future, this means an even stronger local presence in Asian markets. At the same time, we need a strong industrial base in Europe to avoid being dependent on individual markets.

These political and economic challenges require us to become more flexible and to adapt our business processes. Special measures and efforts are needed to cope with the trends facing us. Cost management and innovation will be decisive for WACKER's future success. WACKER has to seize growth opportunities and, at the same time, adjust its cost structures to the economic environment. It is a difficult balancing act to accomplish. We will actively shape the transformation ahead.

A key driver of future growth will be to translate our great technological expertise and innovative strength even more effectively into commercial success. New applications for our customers are an important lever in this process. WACKER BIOSOLUTIONS, our smallest division, is a good example of how to harness new market and business potential by using tomorrow's technologies.

In 2019, our chemical business was a stable anchor, even though we clearly felt the impact of growing chemical competition. In polysilicon, business was dampened not only by excess capacity and a further strong price decline across the entire supply chain, but also by high energy costs. As a result, we recognized an impairment charge on our production facilities and posted a negative net result for the year.

Our long-standing policy of financial stability enables us to cope even with extraordinary financial burdens without endangering the company's economic substance. We continue to attach great importance to a cautious, forward-looking financial policy. Our positive net cash flow and

low level of net financial debt are key indicators of this approach.

We face tough challenges in the year ahead. The transformation of our business processes in the coming months will entail a lot of hard work and will call for endurance, tenacity and courage. It is not going to be an easy task, but it will be decisive for the company's future prospects.

The Supervisory Board wishes to thank all WACKER's employees for their high-level of commitment and strong performance last year.

Continuous Dialogue with the Executive Board

At WACKER, sound corporate governance and control are built on a relationship of trust between the Executive Board and Supervisory Board as they work closely together in the company's interest. In 2019, the Supervisory Board performed – with great diligence – the duties incumbent upon it under law, the Articles of Association and its own Rules of Procedure. The Supervisory Board was involved at an early stage in every decision of fundamental significance for the company.

In both written and oral reports, the Executive Board regularly provided us with timely and comprehensive information on corporate planning, strategic development, business operations, and the current state of Wacker Chemie AG and the Group, including the risk situation, and compliance and sustainability issues. The Chairman of the Supervisory Board remained in close contact with the Executive Board, especially with the CEO – also outside of the scheduled Supervisory Board meetings – and was kept informed of the business situation, current trends and key business transactions. Any deviations from business plans and targets were explained to the Supervisory Board in detail.

Wherever required by statutory provisions or the Articles of Association, the Supervisory Board voted on the reports and proposals of the Executive Board after detailed examination and discussion.

In the reporting year, we paid particularly close attention to investment projects, the current earnings situation, including the risk position and risk management, as well as the company's liquidity and financial position.

The Supervisory Board held four ordinary meetings in 2019, two in the first half of the year and two in the second. Between meetings, the Executive Board informed us in detail by means of written reports about all projects and plans of particular importance to the Group. At its full meetings and in its committees, the Supervisory Board discussed in detail business transactions of importance to the company and referred to the reports submitted by the Executive Board. The full meetings were prepared by shareholder and employee representatives in their own separate sessions.

A total of three members were excused from one Supervisory Board meeting each; otherwise, all members of the Supervisory Board attended all of its meetings. All committee members attended all of their respective committee meetings.

The Supervisory Board's Main Areas of Deliberation

The development of sales, earnings and employment at the Group and its individual segments were the subject of regular consultations in the full meetings of the Supervisory Board. At each meeting, the Supervisory Board evaluated the Executive Board's performance – on the basis of the reports submitted by the Executive Board – and discussed strategic development opportunities and other key topics with the Executive Board. There was no need for additional monitoring measures, such as the inspection of corporate documents or the appointment of experts.

The major areas of deliberation dealt with by the Supervisory Board were:

- The globally challenging market environment, especially high energy costs and the polysilicon-market trend
- The rise in protectionism and trade disputes, in particular anti-dumping proceedings against the solar and other industries in the USA, EU and China; their impact on WACKER; and corresponding courses of action
- The impairment charge recognized on polysilicon production facilities
- Various M&A projects (including a stake in Nexeon in the field of lithium-ion batteries, and the integration of acquisitions made in Spain and the Netherlands)
- Starting up the HDK® facility in Charleston, Tennessee (USA) and the new silicon-metal furnace in Holla (Norway)
- The increase in provisions for pensions because of lower discount rates
- Financing activities

- The German Act implementing the Second Shareholder Rights Directive, and the planned revision of the German Corporate Governance Code
- Performance of the share price

The Supervisory Board discussed the WACKER Group's plans for 2020 at its meeting of December 5, 2019. On that occasion, the Supervisory Board also dealt with medium-term corporate plans for the period 2020–2024. In addition, it discussed and approved the capital-expenditure budget for 2020.

Work in the Committees

The Supervisory Board is assisted in its work by the committees it has constituted. WACKER's Supervisory Board has created three committees – an Audit Committee, an Executive Committee, and a Mediation Committee (the latter in accordance with Section 27 (3) of the German Co-Determination Act (MitbestG)). With the exception of the Audit Committee, which is chaired by Franz-Josef Kortüm, Dr. Peter-Alexander Wacker, the Chairman of the Supervisory Board, chairs the committees.

The Audit Committee met four times last year. Its work included the audit of the annual financial statements of Wacker Chemie AG and the Group for 2018 and of the consolidated interim financial statements for the first half-year. It also discussed the Group's quarterly financial figures, CSR reporting, and issues relating to risk management, compliance and auditing. The committee monitored the independence of the auditors and also discussed the additional services they had provided. Moreover, the Audit Committee submitted a recommendation to the Supervisory Board for the latter's proposal to the Annual Shareholders' Meeting for appointing an auditor for 2019. It then awarded the auditing contract for 2019 and determined the focus of auditing.

The Executive Committee met once in 2019, discussing personnel matters in relation to the Executive Board (e.g. determining overall compensation, and setting the performance goals for the variable compensation component).

The Mediation Committee did not need to be convened last year.

The Supervisory Board was regularly informed about the committees' work.

Corporate Governance

Last year, the Supervisory Board again looked closely at corporate-governance standards. At its meeting of December 5, 2019, the Supervisory Board dealt with application of the German Corporate Governance Code

and adopted the annual Declaration of Conformity that must be submitted jointly by the Executive and Supervisory Boards in accordance with Section 161 of the German Stock Corporation Act (AktG). Shareholders can access the Declaration on the company's website.

In its Corporate Governance Report, the Executive Board provides details – also on behalf of the Supervisory Board – of corporate governance at WACKER in accordance with Item 3.10 of the German Corporate Governance Code.

» For further details, please refer to page 171

At its meeting in December 2019, the Supervisory Board also discussed the efficiency of its activities and found that it works efficiently – for example, due to the regular preliminary discussions regarding the Supervisory Board meetings, the comprehensive reports provided by the Executive Board and the documents received well in advance of the meetings.

Audit of the Annual Financial Statements of Wacker Chemie AG and the WACKER Group

KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, audited the annual financial statements of Wacker Chemie AG for 2019, the consolidated financial statements and the combined management report (as of Dec. 31, 2019), as prepared by the Executive Board. It also audited the relevant accounts.

The Supervisory Board's Audit Committee had awarded the auditing contract in accordance with the resolution of the Annual Shareholders' Meeting of May 23, 2019. The auditors issued an unqualified audit report.

The auditors also examined the risk management system in accordance with Section 91 of the German Stock Corporation Act (AktG). The audit verified that the risk management system and internal control system meet the legal requirements. No risks endangering the continued existence of the company were identified. The auditors also carried out a voluntary review of the combined non-financial report for Wacker Chemie AG and the Group. Their review confirmed that this report, too, meets the legal requirements.

The financial-statement documents (including the auditors' reports, the combined management report and the Executive Board's proposal for the distribution of profits) were submitted to all the Supervisory Board members in good time.

At its meeting of February 27, 2020, the Audit Committee examined and discussed in detail the financial statements, the combined management report, the combined non-financial report for Wacker Chemie AG and the Group

(as per Sections 289b and 315b of the German Commercial Code – HGB) as well as the auditors' reports. At its meeting of March 11, 2020, the full Supervisory Board closely examined and discussed the relevant annual accounting documents – including the combined non-financial report for Wacker Chemie AG and the Group – with knowledge and in consideration of both the report of the Audit Committee and the auditors' reports. The auditors took part in the deliberations at both meetings. They reported on the main results of the audit – in particular the key audit matters described in the auditors' report – and were available to answer questions and provide supplementary information.

After concluding our own examination, we have no objections to raise to the annual financial statements of Wacker Chemie AG, the consolidated financial statements, the combined management report, the combined non-financial report for Wacker Chemie AG and the Group, or the auditors' reports.

We therefore approve the annual financial statements of Wacker Chemie AG and the consolidated financial statements as of December 31, 2019 as prepared by the Executive Board. The annual financial statements of Wacker Chemie AG are hereby adopted. We concur with the Executive Board's proposal for the distribution of retained profit.

Changes in the Composition of the Supervisory and Executive Boards

Due to retirement, Seppel Kraus, a long-standing employee representative on the Supervisory Board, stepped down at the end of June 30, 2019. The Supervisory Board would like to thank Mr. Kraus for all his valuable, enriching and collegial work over the years, and wishes him all the best for the future.

A new Supervisory Board member, Beate Rohrig, was appointed as employee representative at the Executive Board's request by order of the District Court of Munich dated July 18, 2019.

The Supervisory Board thanks the Executive Board and the company's employees and employee representatives for their dedicated work.

Munich, March 11, 2020
The Supervisory Board



Dr. Peter-Alexander Wacker, Chairman of the Supervisory Board of Wacker Chemie AG

WACKER Stock in 2019

The WACKER share began 2019 in lockstep with world markets. Despite high volatility, the trend for share prices was generally positive. Corporate figures reported at the start of the year were predominantly sound. And in many sectors, companies continued to forecast sales and earnings growth. Initially, stock markets also gained impetus from major central banks and their ongoing accommodative monetary policy. As the year progressed, though, sentiment was clouded by revised economic growth forecasts, by more cautious corporate guidance and by political uncertainties. In particular, us-China trade tensions and disappointing solar demand in China slowed our business, causing WACKER's share price to decline further over the year as a whole.

While Germany's DAX, MDAX and SDAX indices posted gains of 25, 31 and 32 percent, respectively, during 2019, WACKER's share price fell 14 percent over the same period.

At the start of the year, WACKER's share price was €79.10 (year-end closing price on Dec. 28, 2018). WACKER stock reached its year-high of €96.16 on March 4. Following publication of WACKER's guidance for the year on March 5, the stock gradually relinquished its previous gains.

Deutsche Börse – in its quarterly review of the composition of the DAX, MDAX, SDAX and TECDEX – announced on June 5, 2019 that WACKER stock would move from the MDAX to the SDAX effective June 24, 2019.

The stock reached its year-low of €59.04 on October 2. Subsequently, it rallied somewhat, closing the year at €67.64 on December 30, 2019.

A.1 Facts & Figures on Wacker Chemie AG's Stock

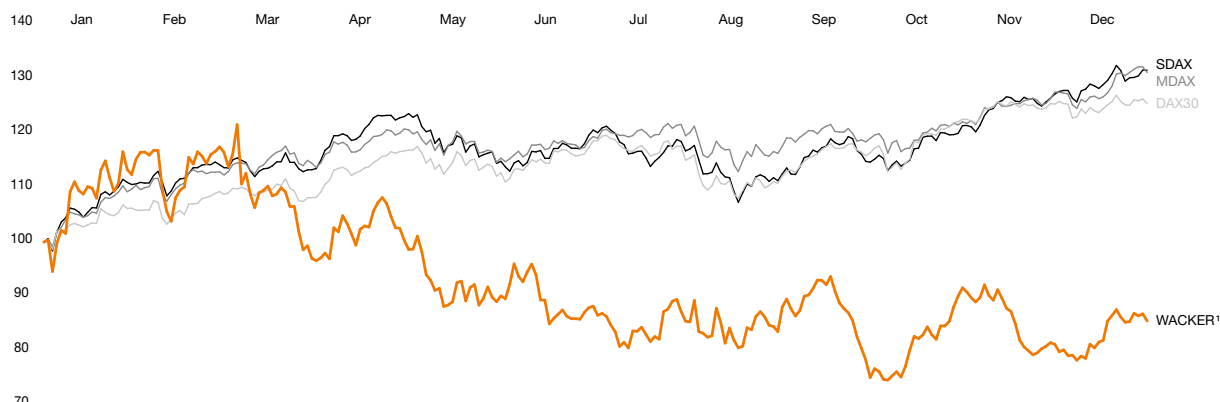
€	
Year-high (on March 4, 2019)	96.16
Year-low (on Oct. 2, 2019)	59.04
Year-end closing price (on Dec. 28, 2018)	79.10
Year-end closing price (on Dec. 30, 2019)	67.64
Performance for the year (without dividend) (%)	–14.5
Year-end market capitalization (shares outstanding; prior year: 3.93) (billion)	3.36
Average daily trading volume ¹ (prior year: 32.5) (million)	16.6
Earnings per share from continuing operations (prior year: 4.95)	–12.95
Dividend per share (proposal)	0.50
Dividend yield ² (%)	0.7

¹ Trading platforms (Xetra, Chi-X and Turquoise)

² Dividend proposal based on an average weighted share price of €73.57 in 2019

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A.2 WACKER Share Performance (indexed to 100)¹



¹ 100 = €79.10 (year-end closing price on Dec. 28, 2018)

Dividend Payment of €2.50 per Share

At the Annual Shareholders' Meeting of Wacker Chemie AG held in Munich on May 23, 2019, all Executive Board and Supervisory Board proposals were adopted by large majorities. The dividend per dividend-bearing share was €2.50 (2017: €4.50). The dividend yield based on WACKER's average share price in 2018 was 2.1 percent (2017: 4.0 percent).

A.3 Dividend Trends

€	2018	2017	2016
Dividend	2.50	2.50	2.00
Special bonus from the sale of Siltronic shares	—	2.00	—
Total dividend	2.50	4.50	2.00
Dividend yield (%)	2.1	4.0	2.6
Net result for the year (allocable to WACKER's shareholders) (million)	246.1	866.7	179.2
Net result for the year from continuing operations (allocable to WACKER's shareholders) (million)	246.1	240.5	179.2
Dividend payout (million)	124.2	223.6	99.4
Distribution ratio (%) ¹	50.5	51.6	55.5

¹ Excluding special bonus; in relation to net result from continuing operations (allocable to WACKER's shareholders)

Shareholder Structure

Wacker Chemie AG's largest shareholder continues to be Dr. Alexander Wacker Familiengesellschaft mbH, Munich. It holds over 50 percent of the voting shares in Wacker Chemie AG (2018: over 50 percent). Blue Elephant Holding GmbH (Bad Wiessee, Germany) also had no voting-share changes to report in 2019, with its holding in Wacker Chemie AG remaining at over 10 percent (2018: over 10 percent).

A.4 Useful Information on WACKER Stock

ISIN	DE000WCH8881
German security identification number (WKN)	WCH888
Frankfurt Stock Exchange	WCH
Bloomberg	CHM/WCH.GR
Reuters	CHE/WCHG.DE
Initial public offering	April 10, 2006 (IPO)
Capital stock	€260,763,000
Trading segment	Regulated market (Prime Standard), Frankfurt/Main Stock Exchange
Category of shares	Bearer shares
Number of shares (Dec. 31, 2019)	52,152,600
Number of shares outstanding	49,677,983
Paying agent	Deutsche Bank, Frankfurt/Main

Market Capitalization and Weighting (Weighting as of December 31, 2019)

WACKER's year-end market capitalization decreased from €3.93 billion to €3.36 billion (total stock without treasury shares). WACKER thus has a weighting of 1.77 percent in the SDAX, and is currently ranked first by 12-month trading volume and 20th by market capitalization among the 70 companies included in the index.

Trading Volume

In the reporting year, the average daily trading volume on the Xetra, Chi-X and Turquoise trading platforms for WACKER stock was approximately 225,000 shares, which was around 16 percent below the prior-year figure of around 269,000 shares.

WACKER Communicates Closely with Capital Markets

Key elements of the corporate strategy include achieving sustainable growth, innovative strength and reducing capital intensity across all segments. These priorities are reinforced through continuous and open communication with institutional and private investors and with analysts. We answered questions from capital-market participants in many talks at conferences and numerous self-organized and broker-supported roadshows. During the year, discussions centered around questions about the market balance in upstream silicone business and the continued absence of a price recovery for solar silicon.

In 2019, the number of analysts covering WACKER declined slightly to 19 (2018: 20). During the year, analysts' consensus price target for WACKER stock fell. At the beginning of the year, the average price target for WACKER stock was €99 (20 estimates, February 2019). At year-end, however, analysts set their fair-value price target at €73 on average (20 estimates), roughly one-quarter lower than at the start of the year.

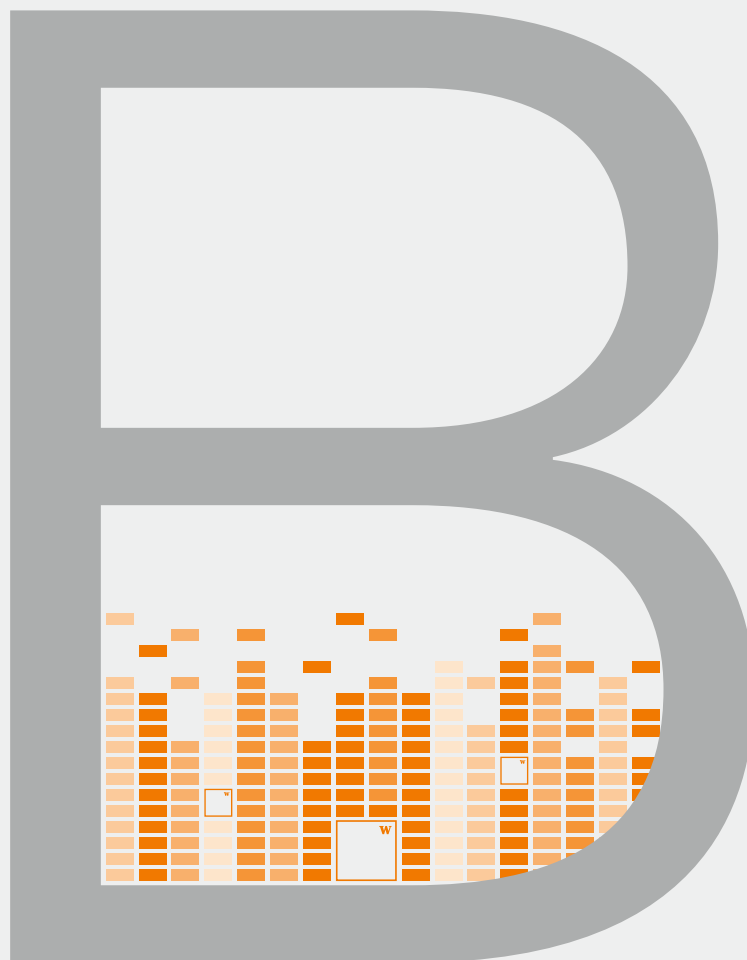
A.5 Banks and Investment Firms Covering and Rating WACKER

Baader Helvea	HSBC
Bankhaus Lampe KG	J.P. Morgan Cazenove Ltd.
Berenberg	Kepler Cheuvreux
Citigroup	Landesbank Baden-Württemberg
Commerzbank Corporates & Markets	Mainfirst
Credit Suisse Securities (Europe) Ltd.	Morgan Stanley & Co. International Ltd.
DZ Bank AG	Société Générale
Exane BNP Paribas	UBS Ltd.
Fairesearch GmbH & Co. KG	Warburg Research GmbH
Hauck & Aufhäuser Privatbankiers AG	

As of the end of December 2019

On our website, we regularly report consensus analyst expectations for the current year. Moreover, our website offers extensive information on WACKER stock. In addition to the annual report, other financial reports, a Fact Book, presentations and publications (viewable online or downloadable), our website lists all our key financial-calendar dates and contact persons for your questions. Videos of our annual press conference and other events are also available for online viewing, or as an audio stream.

Combined Management Report



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Combined Management Report

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Group Business Fundamentals

24 Production Sites

WACKER's integrated global production system consists of 24 production sites. Ten are in Europe, seven in the Americas and seven in Asia. The Group's key production location is Burghausen (Germany).

» See Figure B.2 on page 40

Business Model of the Group

WACKER is a global company with state-of-the-art specialty chemical products found in countless everyday items, ranging from tile adhesives to solar cells. Our portfolio includes more than 3,200 products supplied in over 100 countries.

Silicon Is Our Main Starting Material

Most of our products are based on inorganic starting materials. Silicon-based products account for about 65 percent of WACKER sales, and primarily ethylene-related products for 35 percent. Our main customers are in the chemical, construction, electrical, electronics and photovoltaic sectors.

Technical Competence Centers Support Sales and Marketing Activities

WACKER operates all over the world. Our sales strategy is centered around expanding our presence in growth markets. Our sales organization is supplemented not only by a network of technical competence centers, where customers learn about WACKER's product portfolio, but also by the WACKER ACADEMY, where we offer technical training programs about our products and their application fields. In 2019, we opened a new technical competence center in Bengaluru, India.

Legal Structure

In November 2005, WACKER became a stock corporation (AG) under German law. Headquartered in Munich, Wacker Chemie AG holds a direct or indirect stake in 53 companies belonging to the WACKER Group. The consolidated financial statements cover 49 fully consolidated companies. Four companies are accounted for using the equity method. In addition, Wacker Chemie AG and a number of its subsidiaries have branch offices. But they are only of minor significance for the Group.

» For more information about changes in the scope of consolidation and the resulting effects, please refer to the Scope of Consolidation section in the Notes to the Consolidated Financial Statements.

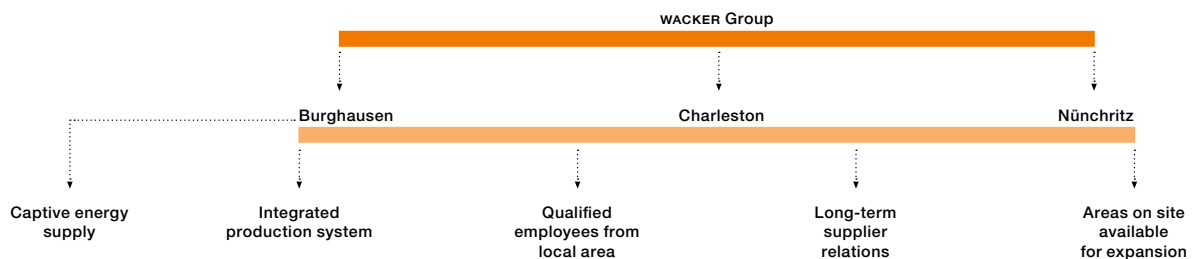
Four Business Divisions

WACKER has a matrix organization with clearly defined functions and four business divisions.

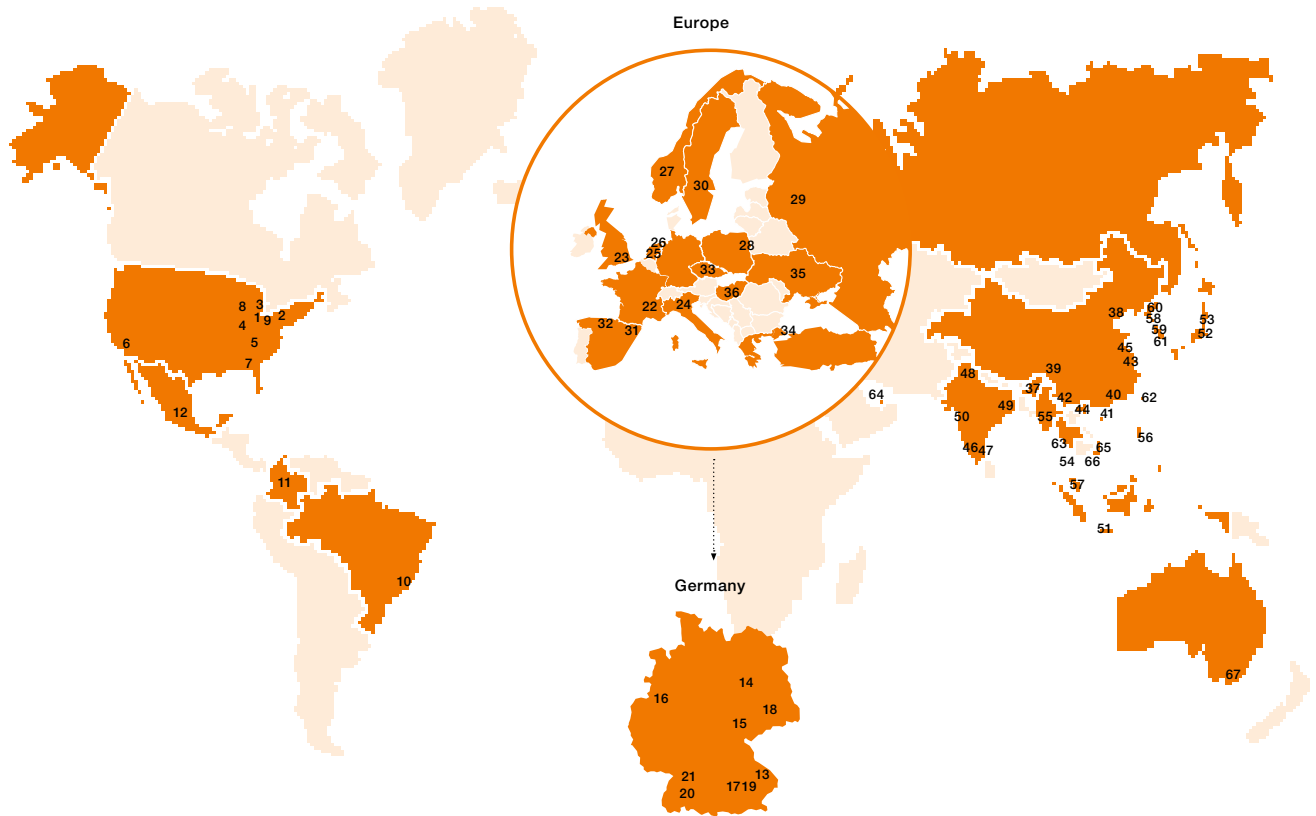
Each business division has global responsibility for its products, manufacturing facilities, markets, customers and results. Regional organizations are responsible for all business in their respective countries. WACKER's corporate departments primarily provide services for the whole Group, although some also have production-related functions.

» See Figure B.4 on page 42

B.1 Key Factors for Multidivisional Sites



B.2 WACKER's Production and Sales Sites and Technical Competence Centers¹



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North and South America

- 1 Adrian, Michigan, USA
- 2 Allentown, Pennsylvania, USA
- 3 Ann Arbor, Michigan, USA
- 4 Calvert City, Kentucky, USA
- 5 Charleston, Tennessee, USA
- 6 Chino, California, USA
- 7 Dalton, Georgia, USA
- 8 Eddyville, Iowa, USA
- 9 North Canton, Ohio, USA
- 10 Jandira, São Paulo, Brazil
- 11 Bogotá, Colombia
- 12 Mexico City, Mexico

Europe

- 13 Burghausen, Germany
- 14 Halle (Saale), Germany
- 15 Jena, Germany
- 16 Cologne, Germany
- 17 Munich, Germany
- 18 Nünchritz, Germany
- 19 Riemerling, Germany
- 20 Stetten, Germany
- 21 Stuttgart, Germany
- 22 Lyon, France
- 23 Bracknell, Great Britain
- 24 Milan, Italy
- 25 Amsterdam, Netherlands
- 26 Krommenie, Netherlands
- 27 Kyrksæterøra, Hølla, Norway
- 28 Warsaw, Poland
- 29 Moscow, Russia
- 30 Solna, Sweden
- 31 Barcelona, Spain
- 32 León, Spain
- 33 Plzeň, Czech Republic
- 34 Istanbul, Turkey
- 35 Kyiv, Ukraine
- 36 Budapest, Hungary

Asia

- 37 Dhaka, Bangladesh
- 38 Beijing, China
- 39 Chengdu, China
- 40 Guangzhou, China
- 41 Hong Kong, China
- 42 Nanjing, China
- 43 Shanghai, China
- 44 Shunde, China
- 45 Zhangjiagang, China
- 46 Bengaluru, India
- 47 Chennai, India
- 48 Delhi, India
- 49 Kolkata, India
- 50 Mumbai, India
- 51 Jakarta, Indonesia
- 52 Tokyo, Japan
- 53 Tsukuba (Akeno), Japan
- 54 Kuala Lumpur, Malaysia
- 55 Yangon, Myanmar
- 56 Makati City, Philippines
- 57 Singapore
- 58 Anyang, South Korea
- 59 Jincheon, South Korea
- 60 Seoul, South Korea
- 61 Ulsan, South Korea
- 62 Taipei, Taiwan
- 63 Bangkok, Thailand
- 64 Dubai, United Arab Emirates
- 65 Hanoi, Vietnam
- 66 Ho Chi Minh City, Vietnam

Australia

- 67 Melbourne, Victoria, Australia

Production site
 Sales site
 Technical competence center

¹ Only majority-owned subsidiaries and joint ventures

Management and Supervision

In compliance with the German Stock Corporation Act (AktG), Wacker Chemie AG has a two-tier management system, comprising an Executive Board and Supervisory Board. The Executive Board has four members.

Wacker Chemie AG is the parent company and thus determines the Group's strategy, overall management, resource allocation, funding, and communications with key target groups (especially with the capital market and shareholders).

Executive Board and Supervisory Board in 2019

A long-standing member of Wacker Chemie AG's Supervisory Board, Seppel Kraus, retired, stepping down on June 30, 2019. A new Supervisory Board member, Beate Rohrig, was appointed as employee representative at the Executive Board's request by order of the District Court of Munich dated July 18, 2019.

There were no changes to the composition of Wacker Chemie AG's Executive Board in 2019.

» For details about Executive Board responsibilities, please refer to the Further Information section.

Declaration on Corporate Management

The declaration on corporate management required by Section 315d in combination with Section 289f of the German Commercial Code (HGB) is included in the corporate governance report. This declaration, which does not form part of the combined management report, is also available online. It contains the Executive and Supervisory Boards' work procedures, the declaration of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG), and information on key corporate management practices. It also includes: targets for the proportion of women on the Supervisory Board and Executive Board, and in the two levels of management below the Executive Board, as well

as deadlines for implementation; statutory minimum quotas to be observed when filling Supervisory Board positions; and information on the company's diversity strategy.

» www.wacker.com/corporate-governance

Non-Financial Statement

The non-financial statement that is to be submitted in accordance with Sections 315b and 315c, and 289b and 289c of the German Commercial Code (HGB) is included in the annual report in the form of a non-financial report for the Group and does not form part of the combined management report. It is also available on the internet, in the online Annual Report for 2019. In addition, it is published in Germany's Federal Gazette. This non-financial report includes a description of the Group's business model and details of environmental concerns, social issues and personnel matters, as well as information on respect for human rights, and on combating corruption and bribery. The non-financial Group report was reviewed by the auditors of the consolidated financial statements.

» <https://www.wacker.com/annual-report>

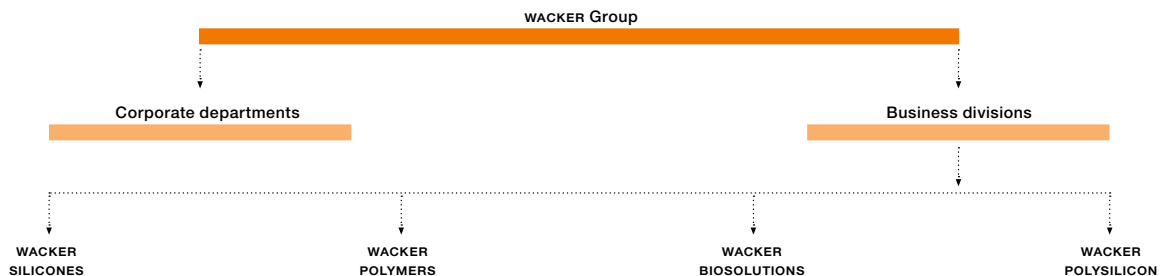
Executive Board and Supervisory Board Compensation

Executive Board compensation contains both fixed and variable components. The main features of the compensation system for the Executive Board and Supervisory Board are described in the compensation report, which is included in the corporate governance report. The compensation report also forms part of the combined management report.

Key Products, Services and Business Processes

Overall, the range of products and services at each of our divisions remained unchanged in 2019. In several application areas, though, we expanded our product portfolio.

B.3 Group Structure



WACKER SILICONES is the business division with the broadest range of products. Two raw materials – silicon metal and methanol – are the basis for making over 2,800 silicone products in seven product groups: silanes, siloxanes, silicone fluids, silicone emulsions, silicone elastomers, silicone resins and pyrogenic silica. Silicones have unique properties and are of unmatched versatility compared with other synthetic materials. Silicones withstand both heat and cold. Not only are they sealants and insulators, but also lubricants and release agents. They are flexible, water-repellent, elastic, UV-resistant and extremely durable. Thanks to their unique chemical and physical properties, they excel in many application areas and are present everywhere in our daily lives.

WACKER POLYMERS makes state-of-the-art binders and polymeric additives (such as dispersible polymer powders and dispersions). They are used in diverse industrial applications or as basic chemicals. The main customer for polymer binders is the construction industry. Other customers include the paint, coating, paper and adhesive industries.

WACKER BIOSOLUTIONS supplies customized biotech and catalog products for fine chemicals. Products include pharmaceutical proteins, cyclodextrins, cysteine, polyvinyl acetate solid resins (for gumbase) and acetylacetone. The division focuses on customer-specific solutions for growth areas, such as pharmaceutical actives, food additives and agrochemicals.

WACKER POLYSILICON produces hyperpure polysilicon for the semiconductor and solar sectors.

Integrated Production System – WACKER's Greatest Strength

A key competitive advantage for WACKER is the highly integrated material loops at its major production sites in Burghausen, Nünchritz, Charleston and Zhangjiagang. The basic principle of integrated production is to use the byproducts from one stage as starting materials for making other products. The auxiliaries required for this, such as silanes, are recycled in a closed loop. Waste heat from one process is utilized in other chemical processes. Integrated production cuts energy and resource consumption, lastingly improves raw-material use and makes environmental protection an intrinsic part of the production process.

Major Sales Markets and Competitive Positions (unaudited section)

The competitive positions of WACKER's three biggest divisions by sales were unchanged in 2019.

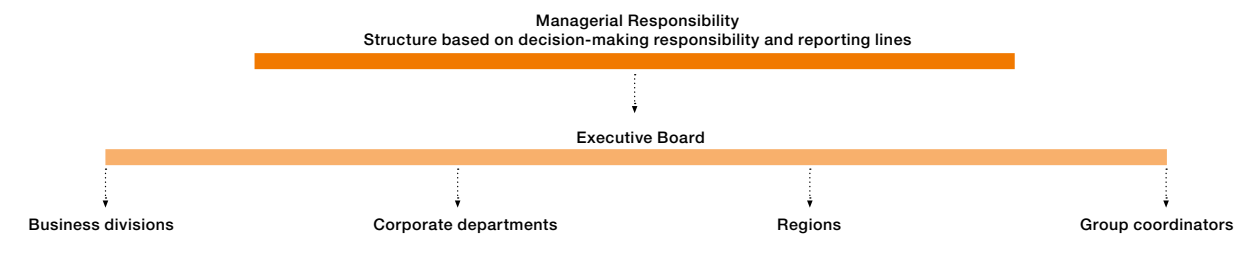
Competitive Positions of WACKER's Divisions

WACKER SILICONES is No. 2 globally and leads the market in Europe. In building-protection silicones, WACKER is the global market leader. Silicones are used in every major industry due to their versatile properties. The greatest growth potential is in Asia.

WACKER POLYMERS is the world's largest producer of VAE dispersions and dispersible polymer powders. We are the only company in the market with a complete supply chain for dispersions and dispersible polymer powders in Europe, the Americas and Asia. At this division, too, we see Asia as the region with the greatest growth potential.

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B.4 Group Structure in Terms of Managerial Responsibility



WACKER BIOSOLUTIONS is the global market leader not only for cyclodextrins and cysteine made from vegetarian-grade raw materials, but also for polyvinyl acetate solid resins used in gumbase. We hold a small but promising market position as a producer of bacterial pharmaceutical proteins, and are continually expanding that position.

WACKER POLYSILICON's business is characterized by intense competition. This primarily results from solar-industry demand for polysilicon and from the market environment facing the solar industry worldwide. According to in-house analyses, WACKER POLYSILICON is global No. 1 in terms of production volumes for both polysilicon supplied to the semiconductor sector and monocrystalline polysilicon used in the solar sector.

Economic and Legal Factors

WACKER sells its products and services to virtually every industry. Although our business divisions are not immune to economic fluctuations, their onset and impact may vary. Our product portfolio and broad customer base enable us to mitigate the magnitude of such fluctuations.

Orders

The terms for orders placed with WACKER vary from division to division. Most orders received by WACKER SILICONES are short term, though a small number are long term. At WACKER POLYMERS, business is based on contracts and framework agreements with terms of up to one year. At WACKER POLYSILICON, we conclude short- and medium-term contracts. An increasing proportion of incoming orders are short-term ones based on market benchmarks. Due to

varying order-placement procedures at the Group, order-level reporting is not very meaningful and hence does not serve as an indicator in our monthly reports.

Operational Metrics as Leading Indicators of Future Developments

By referring to specific leading indicators based on operational metrics, we try to factor potential developments into our business plans and to allocate capacities accordingly. Since our operations are based on diverse businesses and markets, we use a number of leading indicators to gain insights into potential developments at each of our business divisions. Indicators include trends in raw-material and energy prices, as well as data from our own market research and from customer discussions.

Economic Factors Impacting Our Business

The main economic factors influencing WACKER's business remained unchanged in many areas.

Energy and Raw-Material Costs

As a chemical company, we belong to an energy-intensive industry and require diverse raw materials to manufacture our products. Consequently, higher energy and raw-material costs affect our cost structure after a time lag. WACKER constantly strives to keep costs at a competitive level. By generating our own power at Burghausen and Nünchritz, we reduce our energy-procurement needs and, thus, the cost risk. Amendments to the regulatory framework – such as to grid charges, to energy and electricity taxes, to CO₂ certificates in the European Emissions Trading Scheme (ETS) and to the German Renewable Energy Act (EEG) – can negatively affect WACKER's energy costs both directly and indirectly. Germany's high electricity prices result in

B.5 WACKER's Competitive Positions

	Number 1	Number 2	Number 3
WACKER SILICONES	Dow	WACKER	KCC + Momentive
WACKER POLYMERS	WACKER (dispersible polymer powders/ VAE dispersions)	Nouryon (Elotex/ dispersible polymer powders) Celanese (dispersions)	Dairen (dispersible polymer powders/ dispersions)
WACKER POLYSILICON	WACKER	GCL-Poly	OCI

(Table B.5 unaudited)

competitive disadvantages for WACKER. That is why we advocate introducing an industrial electricity price and are urging policymakers to do so. In addition, we continuously strive to improve our energy efficiency. Our goal is to reduce specific energy consumption by half between 2007 and 2022. When procuring raw materials, we ensure not only favorable pricing, but also price flexibility. To this end, we sometimes conclude contracts with varying durations, with greater freedom for the volume procured, or with regular adjustments of wholesale market prices.

Exchange-Rate Fluctuations

As a rule, WACKER hedges against exchange-rate fluctuations. We hedge about half of our dollar exposure for the following year with a mix of currency-hedging transactions. In determining sensitivity, we simulate a 10-percent devaluation of the us dollar against the euro. Without hedging, such an increase in the euro against the us dollar would have a negative impact on EBITDA of around €43 million.

State-Regulated Incentive and Feed-In Tariff Programs for Renewable Energy Sources

As one of the world's leading suppliers of hyperpure polycrystalline silicon, we are affected by regulatory changes to incentive and feed-in tariff programs for renewable energy sources. Substantially lower prices for solar modules and cells have greatly increased the competitive advantage of solar energy over fossil fuels and other methods of power generation. The cost of manufacturing photovoltaic products is expected to continue decreasing, which will further reduce dependence on state-regulated incentive and feed-in tariff programs over the next few years. Our assumption is that, in a few years, solar energy will do well even without special incentives, particularly in combination with cost-efficient storage options.

Legal Factors Impacting Our Business

China imposed anti-dumping and anti-subsidy tariffs on polysilicon made in the USA. These tariffs currently affect polysilicon produced at our site in Charleston, Tennessee (USA). Trade relations with China were impaired further when the USA, in turn, introduced safeguard tariffs through a Section 201 proceeding (global safeguard tariffs on solar cells and modules) and through other "Section" proceedings. An amicable settlement to the dispute over solar products may be achievable as part of a comprehensive trade agreement between the USA and China.

Goals and Strategies

Strategy of the WACKER Group

WACKER's five overarching strategic goals have not changed. The focus is on profitable growth and on holding a leading competitive position in most of our business fields. In achieving this, we orientate our activities toward sustainable development.

► For further information, visit www.wacker.com

WACKER's strategic business goals until 2020 are:

- Expanding our production capacities, with capital expenditures below depreciation / amortization
- Generating higher growth than the average rate for the chemical industry
- Focusing strongly on sustainability
- Achieving attractive margins throughout the economic cycle
- Increasing our cash inflow from operating activities

Investment spending is focused on region-specific plants for intermediate and downstream production. They have a lower capital intensity than full-scale plants for upstream products.

We want to grow faster than the chemical-sector average by deploying new capacities, by expanding in emerging markets and regions, by innovating, and by substituting competitors' products with WACKER products. In doing so, we intend to increase the proportion of specialty products in our portfolio. Our focal regions and countries for further growth remain unchanged: China, Southeast Asia, India, the Middle East and Brazil. We also see opportunities to expand our chemical business in our established markets in Europe and the USA.

Our WACKER Operating System (WOS) is focused on curbing raw-material consumption and raising process efficiency at our plants, the goal being to further lower specific operating costs. Additionally, we are developing a wide range of new, sustainable products to lower CO₂ emissions. For example, we supply polysilicon as a starting material for solar installations and for diverse products used in today's resource-saving construction sector.

Our aim is to achieve attractive margins with our products, with a target EBITDA margin for the chemicals divisions of > 16 percent.

To finance investments ourselves, we aim to generate positive cash flow and steadily increase cash inflows from operating activities.

Digitalization is another topic affecting all our business processes. In 2017, we launched a digitalization program encompassing all core business processes – from logistics, production control and maintenance through to our distribution systems and new business models. Since December 2019, the program's individual projects have been making progress in the corporate sectors responsible.

Strategy at Each Business Division

As a global producer of silicones, WACKER SILICONES intends to continue increasing its share of high-margin specialties to generate profitable growth. For standard products, the division's focus is on being a full-range supplier with global reach and achieving cost leadership via economies of scale. WACKER POLYMERS is pursuing growth by concentrating on the trend toward value-added construction materials and actively promoting related industry standards (transformation). Using the advantages offered by vAE dispersions and dispersible powders, the division aims to replace conventional technologies (substitution) and tap new application areas. At WACKER BIOSOLUTIONS, the focus is on expanding biotech activities and acquiring new customers. To this end, the division is leveraging its extensive expertise and its facilities for making biotech products on an industrial scale.

As regards polysilicon activities, WACKER POLYSILICON is concentrating on efficiency in its business processes. Top priorities are cutting production costs significantly, further increasing the output of existing manufacturing plants, and reducing consumption of energy and raw materials. At the same time, we will maintain the high standard of quality that has made us an industry benchmark. Activities are centered on expanding volumes for semiconductor customers and growing our market share for high-quality monocrystalline polysilicon for the solar industry.

Management Processes

Value-Based Management Is Integral to Our Corporate Policies

Value-based management is an integral part of our corporate policies. Its purpose is to achieve a lasting increase in our company's value. In our management processes, we distinguish between performance parameters and budget parameters. Performance parameters serve the financial management of the company. They include the EBITDA margin and ROCE. The EBITDA margin indicates how successful the company is compared with the competition, while ROCE shows how efficiently the company employs its capital. Budget parameters such as EBITDA and net cash flow are also important for management control. In addition to these indicators, BVC (business value contribution) is a dedicated budget parameter used in the calculation of variable compensation for Executive Board members. The EBITDA trend is considered to be the most important financial indicator for communication with capital markets.

Key Financial Performance Indicators for the WACKER Group

In 2019, the key financial performance indicators for value-based management remained unchanged.

- EBITDA margin (EBITDA in relation to sales). We compare historical performance with planned performance and that of the competition, and use the results to calculate a target EBITDA margin. We calculate the weighted divisional average as our target margin for the Group.
- ROCE, or return on capital employed. ROCE is defined as earnings before interest and taxes (EBIT) divided by capital employed. Capital employed comprises working capital as well as the four-quarter aggregate of noncurrent assets required for business operations. It is determined retroactively for the previous quarter. Investment income from Siltronic AG and the corresponding carrying amount in equity are not included when ROCE is calculated. ROCE is a clear indicator of how profitably the capital required for business operations is being employed.

- EBITDA (earnings before interest, taxes, depreciation and amortization). This shows the company's operational performance capability before considering the cost of capital. We set absolute EBITDA targets for the business divisions and take the cost of capital into account by using BVC to determine the internal budget target. We calculate BVC by deducting the cost of capital, non-operational factors, and depreciation/amortization and impairments from EBITDA. The BVC trend depends mainly on changes in EBITDA.
- Net cash flow (defined as the sum of cash flow from operating activities and long-term investing activities before securities). Net cash flow shows whether we can finance ongoing operations and necessary investments with the funds generated by our own operating activities. WACKER's aim is to generate a sustained positive net cash flow. Apart from profitability, the main factors affecting net cash flow are the effective management of net current assets and the level of capital expenditures.

Supplementary Financial Performance Indicators

Our key financial performance indicators are supplemented by additional performance indicators that provide us with information on the Group's sales and liquidity situation and on its debt levels.

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These supplementary financial performance indicators include:

- Sales: profitable growth is an important factor in increasing the company's value over the long term and one of the main drivers of a positive cash flow trend.
- Capital expenditures: in the course of our medium-term planning, we set capital-expenditure priorities and an investment budget. Investments do not contain any right-of-use assets from lease accounting.
- Net financial debt: defined as the sum of cash and cash equivalents, noncurrent and current securities, and noncurrent and current financial liabilities.

Non-Financial Performance Indicators Are Not Intended for Groupwide Management Control

None of the non-financial indicators we employ is used universally for corporate decision-making.

Development of Key Financial Performance Indicators in 2019

EBITDA margin: in 2019, the target margin was 20 percent. The Group actually achieved an EBITDA margin of 15.9 percent.

B.6 Planned and Actual Figures

€ million	Reported for 2019	Forecast 2019	2018
EBITDA margin (%)	15.9	Clearly below prior-year level	18.7
EBITDA	783.4	10 to 20% lower than a year earlier	930.0
ROCE (%)	-11.3	Clearly below prior-year level	5.9
Net cash flow	184.4	Clearly positive and substantially higher than a year earlier	86.2

EBITDA: we expected EBITDA in 2019 to be 10 to 20 percent lower than a year earlier (without the insurance compensation for the incident-related damage incurred at Charleston). We missed this target. Adjusted for insurance compensation, EBITDA fell 28 percent year over year. This was mainly due to prices for solar-grade polysilicon, which were lower than expected in 2019. The pre-tax cost of capital was 10.0 percent in 2019. We did not meet our BVC target at the Group level in 2019. BVC was influenced by an impairment of fixed assets. At €-1.1 billion, the figure achieved was worse than in the prior year.

B.7 ROCE and BVC

€ million	2019	2018
EBIT	-536.3	389.6
Capital employed ¹	5,183.5	4,917.0
ROCE ² (%)	-11.3	5.9
Pre-tax cost of capital (%)	10.0	10.3
BVC ³	-1,102.4	-266.6

¹ Capital employed is the sum of average noncurrent assets (less noncurrent securities and deferred tax assets), plus inventories and trade receivables (less trade payables). It is the variable used in calculating the cost of capital.

² Return on capital employed is a ratio indicating how profitably capital is employed. Investment income from Siltronic AG and the corresponding carrying amount in equity are not included when ROCE is calculated.

³ BVC is calculated by adjusting EBIT for non-operational factors.

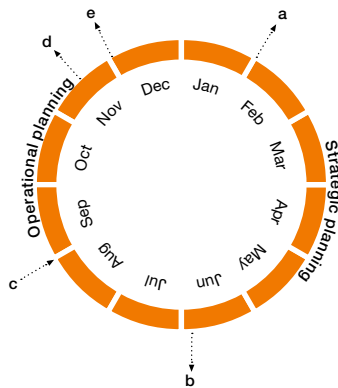
ROCE: WACKER's ROCE in 2019 was -11.3 percent. In our March 2019 forecast, we had expected ROCE to be substantially below the prior-year level. It was much lower than expected, however, due to developments at WACKER POLYSILICON.

Net cash flow: our 2019 guidance was for a clearly positive figure, substantially higher than the year before. At €184.4 million, net cash flow was in line with our forecast. However, this was due to the insurance compensation received for the incident-related damage incurred at Charleston. Adjusted for this item, net cash flow in 2019 declined versus the previous year.

Planning Cycle

Strategic planning determines how we can meet value-related and corporate goals. First, our divisions identify their market and competitive positions, and their value-related strength. We then use these results to formulate recommendations regarding strategic positioning and planned steps. All of this is supplemented by innovation and investment projects, and approved by the Strategy Conference.

B.8 Strategic and Operational Planning



- a Forecasts made for current year
- b Strategy Conference
- c Strategy implemented in operational planning
- d Planning Conference
- e Operational planning approved (by Supervisory Board)

Operational planning in the second half of the year addresses strategic-planning decisions with a five-year timeline. The Executive and Supervisory Boards jointly approve the annual plan, which then forms the basis for determining basic forecasts for the current year in early February. We monitor whether we are meeting our forecasts by means of monthly comparisons of planned and actual figures.

Financing Strategy

The goal of WACKER's financing strategy is to ensure sustainable growth and stability for the Group. This strategy comprises both financing through our own resources and the use of debt instruments.

We ensure the Group's ongoing solvency with rolling cash-flow management and an adequate volume of contractually agreed lines of credit. Financing requirements are calculated for the entire Group, with loans usually being taken out centrally. Project-specific and regional funding are available in special cases.

» For details of the financing measures implemented in 2019, please refer to the Financial Position section on page 63.

Operational Control Instruments

We control operational processes via our integrated management system (IMS). This system stipulates uniform standards throughout the Group for issues relating to quality, environmental protection, and health and safety. We have our Group management system analyzed by an international certification organization in accordance with uniform standards based on ISO 9001 (quality) and ISO 14001 (environment).

Statutory Information on Takeovers

B.9 Information Required by Section 315a (1) of the German Commercial Code (HGB)

The following table contains information required by Section 315a (1) of the German Commercial Code (HGB):

§315a (1) 1	Composition of subscribed capital:	Wacker Chemie AG's subscribed capital comprises 52,152,600 non-par value voting shares. No other share classes have been issued. The total number of shares currently includes 49,677,983 held by external shareholders and 2,474,617 held by Wacker Chemie AG itself. WACKER's treasury shares were acquired by repurchasing Wacker Chemie GmbH shares in August 2005, when it was still a private limited company. The Executive Board may use or sell 1,692,317 of these treasury shares with the consent of the Supervisory Board; use or sale of the remaining 782,300 shares requires Supervisory Board approval as well as a resolution by the Annual Shareholders' Meeting.
§315a (1) 2	Restrictions on voting rights or on the transfer of shares:	There are no restrictions on voting rights or the transfer of shares.
§315a (1) 3	Direct or indirect capital stakes:	Each of the following holds a stake of over 10 percent of the subscribed capital: Dr. Alexander Wacker Familiengesellschaft mbH, based in Munich; Blue Elephant Holding GmbH, based in Pöcking; and Dr. Peter-Alexander Wacker, resident in Bad Wiessee and to whom the voting shares of Blue Elephant Holding GmbH are attributable.
§315a (1) 4	Owners of shares with special rights:	Shareholders have not been given any special rights that bestow powers of control.
§315a (1) 5	Method of voting-right control in the case of employee participation:	Insofar as employees hold shares in Wacker Chemie AG's capital, they exercise their resulting control rights directly.
§315a (1) 6	Statutory provisions and articles of association regarding the appointment and dismissal of executive board members and amendments to said articles:	The provisions to appoint and dismiss Wacker Chemie AG's Executive Board members are based on Section 84 et seq. of the German Stock Corporation Act (AktG). Wacker Chemie AG's Articles of Association do not contain any further provisions in this respect. Pursuant to Article 4 of the Articles of Association, the number of Executive Board members is fixed by the Supervisory Board, which also appoints an Executive Board member as President & CEO. Amendments to the Articles of Association are covered by Sections 133 and 179 of the German Stock Corporation Act. In accordance with Section 179 (1) sentence 2 of the Act, the Supervisory Board has been empowered to amend the Articles of Association if only the wording thereof is affected.
§315a (1) 7	Authority of the executive board to issue or buy back shares:	In accordance with a resolution passed at the May 8, 2015 Annual Shareholders' Meeting, Wacker Chemie AG's Executive Board was authorized – in compliance with the legal provisions set out in Section 71 (1) no. 8 of the German Stock Corporation Act – to acquire treasury shares totaling a maximum of 10 percent of capital stock. No capital has been authorized for the issue of new shares.
§315a (1) 8	Major agreements associated with changes of control due to a takeover bid:	Various agreements with joint-venture partners include change-of-control clauses, which stipulate what is to happen if one of the joint-venture partners is taken over. These arrangements comply with the usual standards for such joint-venture agreements. In addition, several loan agreements contain change-of-control clauses. Here, too, the clauses are typical of this type of agreement.
§315a (1) 9	Severance agreements with the executive board or employees in the event of a takeover bid:	There are no severance agreements or similar with employees or with Executive Board members in the event of a takeover bid (please refer to the Compensation Report).

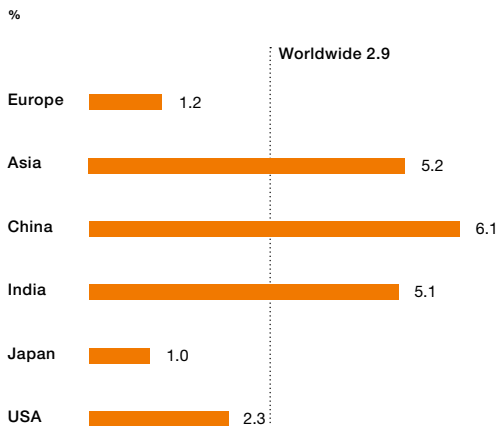
Business Report

Economic Trends

Global economic growth slowed in 2019. According to the International Monetary Fund (IMF), global GDP climbed by 2.9 percent – the lowest growth rate since the 2008–2009 financial crisis.

Given ongoing trade tensions and deepening political and geopolitical crises, economic researchers lowered their outlook several times during the year. In many parts of Europe, and in the USA, growth lagged the rates of previous years. Growth also slowed in many emerging market and developing economies. In China, for example, GDP growth was 0.5 percentage points lower than in the prior year. Growth rates also declined in India, Russia, Brazil and Mexico.

B.10 GDP Trends in 2019



Sources – worldwide: IMF; Europe: OECD; Asia: ADB; China: National Bureau of Statistics; India: ADB; Japan: OECD; USA: IMF

Sector-Specific Conditions

We supply products to a wide range of industries. Our main customers are in the chemical, construction, electrical, electronics and photovoltaic sectors.

Chemical Industry Grows Globally

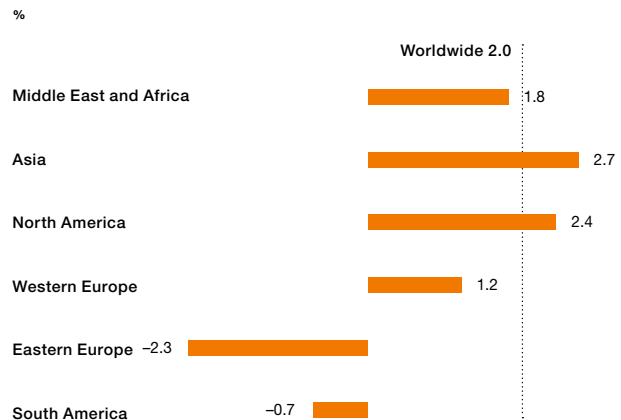
In 2019, the chemical industry performed well worldwide. Its growth focus is steadily shifting to emerging markets – especially toward Asia. Investment activities are intensifying in countries with low energy and raw-material costs. Europe is benefiting from these growth markets through foreign trade. According to the German Chemical Industry Association (vci), global chemical sales (including pharmaceuticals) totaled €4.6 trillion in 2018, with Asia accounting for more than 50 percent.

For Germany’s chemical industry, 2019 was a difficult year. Based on vci figures, sales in this sector, Germany’s third-largest industry, contracted by 5.0 percent to €193 billion (2018: €204 billion). The global economic downturn and us-China trade tensions impaired the industry’s international business, while domestic chemical demand from industrial customers also declined. As a result, total production in Germany’s chemical/pharmaceutical industry fell by 7.5 percent. Capacity utilization at German chemical plants was about 83 percent in 2019.

Construction Industry Grows in 2019

The construction industry performed well in 2019. According to market research institute B+L Marktdaten GmbH, global construction expenditure rose by 2.0 percent to us\$9.32 trillion (2018: us\$9.14 trillion). In regional terms, the construction sector’s performance diverged across individual markets: construction expenditure grew in Asia, Western Europe and North America, but declined in South America and Eastern Europe.

B.11 Growth Rate in Construction by Region in 2019



Source: B+L Marktdaten GmbH, December 2019

Electrical and Electronics Sector Expands in Emerging Market Economies

According to the German Electrical and Electronic Manufacturers' Association (ZVEI), the global electrical and electronics market grew 4 percent to about €4.56 trillion in 2019 (2018: €4.42 trillion). The main impetus came from China and emerging markets, which added around 6 percent and 5 percent, respectively.

Photovoltaics Pivotal to Global Energy Supply

The global solar industry posted continued growth in 2019. Various market studies and our own market surveys show that some 120 gigawatts (GW) were newly installed worldwide (2018: about 105 GW). That was about 14 percent more than the year before. The amount of installed PV capacity worldwide thus exceeded 600 GW at year-end 2019. About half of the new capacity in 2019 was added in China, India, Japan and the USA. Although changes in China's incentive policies caused newly installed capacity there to decrease from 44 GW in 2018 to 30 GW in 2019, the drop was offset by strong growth in many other markets.

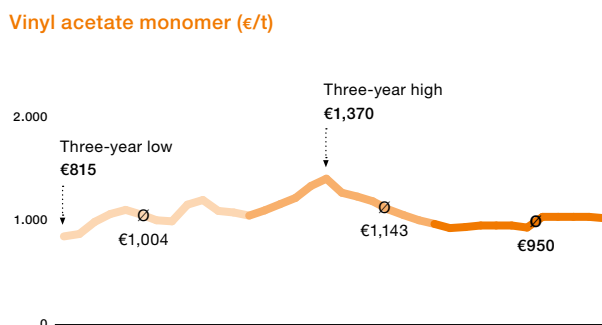
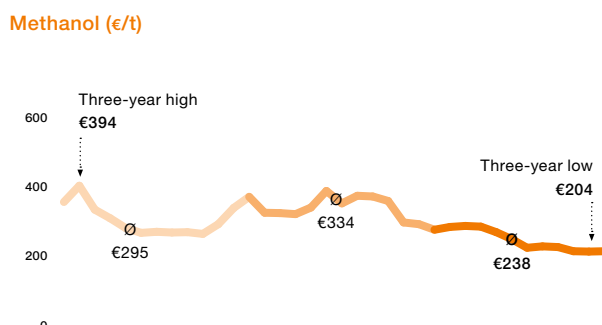
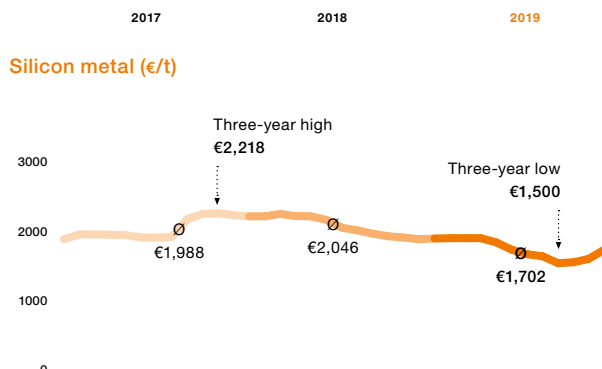
B.12 Installation of New PV Capacity in 2019 and 2018

	Installation of New PV Capacity (MW)		Growth in 2019
	2019	2018	%
Germany	4,000	3,000	33
Spain	4,700	400	1,075
Rest of Europe	13,000	8,100	60
USA	13,000	10,600	23
Japan	7,500	7,000	7
China	30,200	44,300	-32
India	8,500	8,500	0
Other regions	39,100	23,100	69
Total	120,000	105,000	14

Sources: Germany's Federal Network Agency, Commissariat Général au Développement Durable, Solar Energy Industries Association (SEIA), RTS Corporation, China National Energy Agency, India's Ministry of New and Renewable Energy, Bridge to India, market studies, and WACKER's own market surveys. (Table B.12 unaudited)

Despite the global rise in new installations, conditions in the PV industry remained challenging. In the USA and India, punitive tariffs on imported solar cells and modules are pushing up prices, impeding growth in those markets. In China, expectations of a pick-up in growth were put off until 2020. Due to the high excess capacity built up by Chinese manufacturers, price pressures persisted across all stages of the supply chain. As a result, numerous solar companies failed to achieve any full-year improvement in their financial situation.

B.13 Market-Price Trends for WACKER's Key Raw Materials in Europe



Ø Annual average in each case (Table B.13 unaudited)

Raw-Material Prices Decline Year over Year

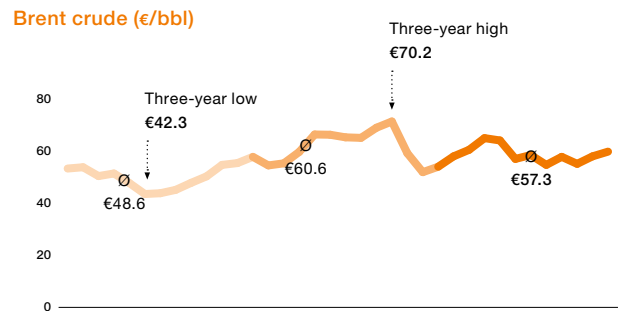
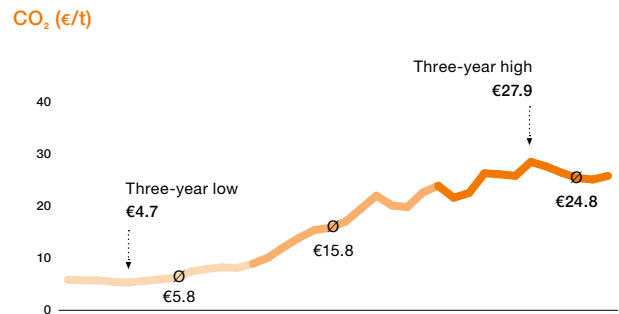
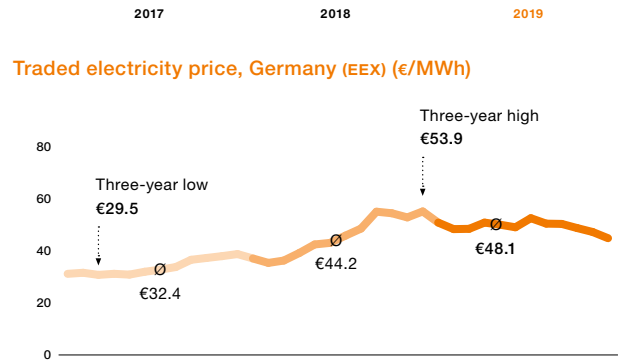
Overall, raw-material prices were lower in 2019 than a year earlier. Silicon-metal prices in Europe started tumbling in the second quarter before bottoming out in the fourth. One reason was slowing demand due to high inventories and lower volumes, particularly for aluminum alloys. At the same time, excess capacity in China put pressure on global prices, causing temporary shutdowns at silicon-metal plants in Europe. Ethylene prices in Europe were largely determined by naphtha, which is the main cost factor, and thus by the price trend for crude oil. The price of methanol dropped steeply during the year as a result of ample supply, as well as changes in coal and oil prices, which are decisive for methanol pricing. After a strong climb in 2018, the price of vinyl acetate monomer decreased markedly in 2019.

Electricity and CO₂ Prices Rise

In 2019, the prices of WACKER's key energy sources increased markedly versus the prior year. On the global crude-oil market, prices rose due to OPEC supply cuts and geopolitical tensions, before weakening again. High CO₂ prices and discussions about a potential coal exit caused electricity prices to climb in the first half of 2019. As the year progressed, electricity prices came under pressure amid historically low gas and coal prices, and slackening industrial demand. A hot summer and the limited planning horizon for electricity from renewables caused strong price fluctuations during the year. Additionally, electricity prices in Germany are subject to levies and fees, including grid fees, electricity taxes and the German EEG surcharge for renewables.

After climbing steeply in 2018, prices for CO₂ reached an 11-year daily high of €29 per metric ton in July 2019, before stabilizing in the second half-year at around €25 per metric ton. The price trend showed significant volatility.

B.14 Market-Price Trends for Energy Sources Relevant to WACKER



○ Annual average in each case
(Table B.14 unaudited)

Overall Statement by the Executive Board on Underlying Conditions

Economic and political risks rose considerably in 2019, weighing on the global economy. Growth slowed markedly during the year, especially in the second half. The last time global expansion had been so weak was during the financial crisis of 2009. A dominant factor in this trend was the continuing trade dispute between the USA and China. The growth trend was also impeded by the problems surrounding the United Kingdom's exit from the European Union.

Given the underlying conditions, WACKER's chemical business performed satisfactorily in 2019. At WACKER SILICONES, sales in 2019 were down slightly after a strong rise of 14 percent in 2018. The other two chemical divisions, WACKER POLYMERS and WACKER BIOSOLUTIONS, lifted both volumes and sales. The operating result for our chemical divisions was lower year over year. The decline was due chiefly to the fall in average prices for standard silicone products, which dampened EBITDA at WACKER SILICONES. EBITDA at WACKER POLYMERS and WACKER BIOSOLUTIONS rose. In our polysilicon business, the situation remained difficult. Sales dropped as average prices continued to fall amid excess capacity. We were also impacted by high energy costs. In combination, these factors clearly weighed on our earnings performance, which was much weaker than planned.

Trends diverged in the individual regions. In Europe, sales declined. Sales in Asia were on par with the prior-year level. In the Americas, we grew sales by a mid-single-digit percentage.

Key Events Affecting Business Performance

Acquisitions and Investments

In September 2019, WACKER invested in UK battery specialist Nexeon, acquiring a 25-percent stake. Nexeon develops, produces and markets innovative silicon-based anode materials that considerably boost the performance of lithium-ion batteries. WACKER has been collaborating with Nexeon on battery research since 2013.

Divestitures

WACKER did not divest any business fields or product business in 2019.

Capital Expenditures

Capital expenditures decreased year over year, as planned. They amounted to €379.5 million in the reporting year (2018: €460.9 million).

The focus of WACKER's investing activities was on our three chemical divisions, with several projects in different countries. In 2019, our Charleston site in Tennessee (USA) finished constructing a pyrogenic-silica facility, which came onstream in October. In Zhangjiagang (China), we built a new plant for solid silicone rubber, which started up in June 2019 and has since produced several thousand metric tons for the Asia-Pacific region. Our Ulsan site in South Korea also completed its new spray dryer for dispersible polymer powders, which has been onstream since September 2019. The site in Holla (Norway) completed the expansion of its silicon-metal manufacturing facilities, with the new furnace starting production in November 2019. WACKER also invested in a series of small- and medium-scale projects for intermediates and downstream products, and in infrastructure measures at our fully integrated sites in Burghausen and Nünchritz.

Comparing Actual with Forecast Performance

WACKER did not change the 2019 targets it had set early that year for EBITDA margin, ROCE, net financial debt and capital expenditures, but it did adjust its expectations for sales, EBITDA, depreciation/amortization and net cash flow as conditions worsened during the year. The main reasons for the revisions were not only the weakening global economy, but also the absence of a recovery in solar-grade polysilicon prices in the second half of 2019 – which WACKER had originally forecast in consensus with many market experts.

Guidance Lowered During the Year

At the start of 2019, WACKER projected that it would grow its sales by a mid-single-digit percentage. The EBITDA margin and ROCE would be substantially lower than a year earlier, with EBITDA 10 to 20 percent lower. Net cash flow would be clearly positive and substantially higher than the year before. Capital expenditures would reach around €400 million, with depreciation/amortization amounting to around €525 million. Net financial debt would be higher than a year earlier.

In its Q1 Interim Report of April 2019, WACKER left its projections unchanged.

In its Q2 Interim Report, WACKER provided more specific guidance for EBITDA. With China's solar-market upturn still not in sight, WACKER's mid-2019 expectations were that EBITDA was likely to be closer to the bottom end of its projected range of 10 to 20 percent lower year over year. The Group lifted its guidance for full-year depreciation/amortization to around €550 million. For all the other key financial performance indicators, the outlook remained unchanged.

In its Q3 Interim Report, WACKER noticeably lowered its expectations for EBITDA and net cash flow. This was due to the continued decline in solar-grade polysilicon prices and the weakening global economy. Sales would likely be on par with the year before and EBITDA some 30 percent below the prior-year level. Net cash flow was projected to be clearly positive, but lower than a year earlier. The outlook for all the other key performance indicators remained unchanged. As explained at the start of the year, full-year guidance did not include insurance compensation for the incident-related damage incurred at the Charleston site.

WACKER Achieves Its Q3 Sales and EBITDA Targets, with Impairment of Fixed Assets Increasing Depreciation/Amortization and Impairments

In 2019, WACKER posted sales of €4.93 billion, almost on par with the year-earlier level (€4.98 billion). The slight decline of 1 percent was mainly due to lower prices, especially for solar-grade polysilicon, but also for standard silicones. Sales were supported by higher volumes overall, by product-mix effects and by the year-over-year rise in the us dollar.

EBITDA was €783.4 million, down 15.8 percent (2018: €930.0 million). The EBITDA figure included special income of €112.5 million in insurance compensation for the incident-related damage incurred at Charleston. Adjusted for this amount, EBITDA amounted to €670.9 million – down 27.9 percent, it was in line with the guidance issued in Q3. The EBITDA margin, in turn, was markedly lower than in the prior year.

Net cash flow of €184.4 million was clearly positive. Adjusted for the cash inflow of roughly €100 million, it was below the year-earlier figure as projected. As expected, ROCE of –11.3 percent was substantially below the prior-year level.

In 2019, capital expenditures reached €379.5 million, slightly below the some €400 million previously projected.

At €713.7 million, year-end net financial debt was higher than the previous year, as forecast at the start of the year. The increase was mainly due to first-time application of IFRS 16.

As announced in early December 2019, WACKER's 2019 financial statements include an impairment charge on the carrying amount of its hyperpure-polysilicon production facilities. At €760.0 million, the charge reflects the company's subdued expectations for the future trend in solar-grade polysilicon prices. In consequence, full-year depreciation/amortization and impairments totaled €1.32 billion, markedly above the most recent guidance of around €550 million.

B.15 Expenses by Cost Type

% of sales	2019	2018
Personnel costs	25.6	24.9
Raw-material costs	30.0	30.0
Energy costs	8.1	6.6
Depreciation/amortization and impairments	26.8	10.9

B.16 Comparing Actual with Forecast Performance

Key Financial Performance Indicators	Results in 2018	Forecast March 2019	Forecast April 2019	Forecast August 2019	Forecast October 2019	Results in 2019
EBITDA margin (%)	18.7	Substantially lower than last year	Substantially lower than last year	Substantially lower than last year	Substantially lower than last year	15.9
EBITDA (€ million)	930.0	10 to 20% lower than last year	10 to 20% lower than last year	10 to 20% lower than last year (likely toward bottom of range)	Some 30% below last year's level	783.4
ROCE (%)	5.9	Substantially below the prior-year level	Substantially below the prior-year level	Substantially below the prior-year level	Substantially below the prior-year level	-11.3
Net cash flow (€ million) (value for 2018 restated)	86.2	Clearly positive, substantially higher than last year	Clearly positive, substantially higher than last year	Clearly positive, substantially higher than last year	Clearly positive, lower than last year	184.4
Supplementary Financial Performance Indicators						
Sales (€ million)	4,978.8	Mid-single-digit percentage increase	Mid-single-digit percentage increase	Mid-single-digit percentage increase	On par with last year	4,927.6
Capital expenditures (€ million)	460.9	Around 400	Around 400	Around 400	Around 400	379.5
Net financial debt (€ million)	609.7	Higher than last year	Higher than last year	Higher than last year	Higher than last year	713.7
Depreciation/amortization (€ million)	540.4	Around 525	Around 525	Around 550	Around 550	1,319.7

Earnings

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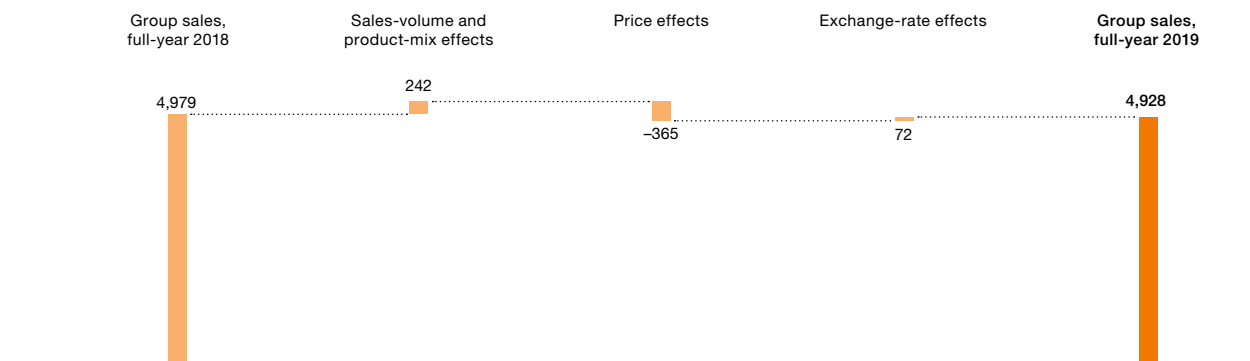
Group Sales of €4.93 Billion Almost at Prior Year's €4.98 Billion

Group sales in 2019 were on par with the year before. The slight decline of 1 percent was mainly due to lower prices, especially for solar-grade polysilicon, but also for standard

silicones. Sales were supported by generally higher volumes, product-mix effects and the year-over-year rise in the US dollar. WACKER SILICONES posted sales of €2.45 billion (2018: €2.50 billion), down only 2 percent from its high year-earlier figure despite noticeably lower prices for standard silicones. WACKER POLYMERS generated sales of €1.32 billion in 2019 (2018: €1.28 billion), up 3 percent. Sales at WACKER BIOSOLUTIONS rose 7 percent to €243.0 million (2018: €227.0 million). At WACKER POLYSILICON, on the other hand, sales declined 5 percent to €780.0 million

B.17 Year-over-Year Sales Comparison

€ million



(2018: €823.5 million). Solar-grade polysilicon business was impacted by substantially lower prices, and strong volume growth did not fully offset that effect.

» For further information on the business divisions, please refer to the Segments section starting on page 56.

WACKER generated the majority of its sales outside of Germany. International sales came in at €4.13 billion (2018: €4.11 billion), accounting for 84 percent of total sales.

» For further information, please refer to the Regions section starting on page 59.

Group EBITDA at €783.4 Million, with EBITDA Margin of 15.9 Percent

Group EBITDA declined 16 percent year over year, coming in at €783.4 million (2018: €930.0 million). The EBITDA margin of 15.9 percent was lower than the previous year (2018: 18.7 percent). EBITDA included €112.5 million in insurance compensation for the damage from the 2017 incident at Charleston. WACKER recognized this compensation under cost of goods sold. Adjusted for this amount, EBITDA was €670.9 million, down 28 percent versus the previous year. The main factors dampening earnings were markedly reduced average prices for solar-grade polysilicon, lower prices for standard silicones and the effects of inventory valuation adjustments. In the prior year, business-interruption costs at the Charleston, Tennessee site (USA) had reduced EBITDA. Following the incident, we gradually ramped up production again at the site from May through December 2018. Lower raw-material costs had a positive impact on earnings.

A positive factor for EBITDA was the Group's income from investments in joint ventures and associates, coming in at €54.3 million (2018: €131.7 million). Investment income from Siltronic contributed €51.4 million (2018: €99.9 million) to the result from investments in joint ventures and associates.

Initial application of IFRS 16 (Leases) benefited EBITDA by around €35 million. At the same time, it increased amortization and interest expense.

» For further information on the business divisions, please refer to the Segments section starting on page 56.

B.18 Reconciliation of EBITDA to EBIT

€ million	2019	2018	Change in %
EBITDA	783.4	930.0	-15.8
Depreciation/ amortization, impairments and reversals of fixed assets	-1,319.7	-540.4	>100
EBIT	-536.3	389.6	n.a.

EBIT Negative Due to Impairments

Group earnings before interest and taxes (EBIT) totaled €-536.3 million in the reporting period (2018: €389.6 million), yielding an EBITDA margin of -10.9 percent (2018: 7.8 percent). Due to lower polysilicon prices, an impairment charge of €760.0 million was recognized on WACKER POLYSILICON's fixed assets as of December 31, 2019. WACKER expects the price trend for solar-grade polysilicon to remain subdued. Total depreciation/amortization and impairments amounted to €1.32 billion in 2019 (2018: €540.4 million). The application of IFRS 16 led to a slight increase in depreciation/amortization.

B.19 Reconciliation of EBIT to Net Result for the Period

€ million	2019	2018	Change in %
EBIT	-536.3	389.6	n.a.
Financial result	-54.9	-65.2	-15.8
Income before income taxes	-591.2	324.4	n.a.
Income taxes	-38.4	-64.3	-40.3
Net result for the year	-629.6	260.1	n.a.
Of which			
Attributable to Wacker Chemie AG shareholders	-642.6	246.1	n.a.
Attributable to non-controlling interests	13.0	14.0	-7.1
Earnings per common share (€) (basic/diluted)	-12.94	4.95	n.a.
Average number of shares outstanding (weighted)	49,677,983	49,677,983	-

Cost of Goods Sold Unchanged Year over Year

At €803.2 million, gross profit from sales was 8 percent lower than the year before (2018: €874.7 million). The cost of goods sold came in at €4.13 billion (2018: €4.10 billion). The gross margin was 16.3 percent (2018: 17.6 percent). The insurance compensation of €112.5 million received in September was posted under cost of goods sold. Inventory valuation adjustments increased the cost of goods sold by €46.3 million. The Group's cost-of-sales ratio rose from 82 percent to 84 percent.

Functional Costs Almost Unchanged

Other functional costs (selling, R&D and general administrative expenses) were 1 percent higher year over year, climbing to €633.4 million (2018: €627.8 million). This increase was mainly due to higher personnel expenses across all corporate sectors. Administrative expenses, on the other hand, were lower.

Other Operating Income and Expenses

In 2019, the balance of other operating income and expenses was €-760.4 million (2018: €11.0 million). Other operating expenses included an impairment charge of €760 million on WACKER POLYSILICON's fixed assets. A solar-market recovery failed to materialize in Q4 2019 and WACKER expects prices for solar-grade polysilicon to remain low going forward. The impaired facilities are located at the Charleston site in the USA and in Germany. In 2019, WACKER retained advance payments of €19.3 million received in connection with its contractual and delivery relationship with a solar customer, recognizing them under other operating income. Foreign currency losses of €-12.8 million (2018: €-6.9 million) lowered other operating income and expenses.

Result from Investments

Due to lower investment income from Siltronic AG, the result from investments in joint ventures and associates fell to €54.3 million (2018: €131.7 million). Investment income from Siltronic accounted for €51.4 million (2018: €99.9 million). In the prior year, the result from investments had also included the positive effects of remeasurements of other investments.

Financial and Net Interest Result

WACKER's financial result improved year over year, coming in at €-54.9 million (2018: €-65.2 million). Interest income was €10.6 million (2018: €8.0 million) and interest expenses amounted to €20.3 million (2018: €22.1 million). The net interest result was thus €-9.7 million (2018: €-14.1 million). WACKER repaid financial liabilities and agreed new financing at favorable interest rates.

The other financial result was €-45.2 million (2018: €-51.1 million). It included not only the interest-rate effects of provisions for pensions and other provisions, but also exchange-rate effects and the costs of derivative financial instruments used to hedge Group loans.

Income Taxes

WACKER reported tax expenses of €38.4 million for 2019 (2018: €64.3 million). Adjusted for the impairment loss of €760 million, the Group's effective tax rate was 22.7 percent (2018: 19.8 percent). Recognized after tax, the investment income from Siltronic AG formed part of pre-tax income and reduced the effective tax rate.

The Group's Net Result

Partly due to the effects mentioned, the Group's net result entered negative territory. The net loss was €-629.6 million. A year earlier, the Group had posted net income of €260.1 million.

Return on Capital Employed (ROCE)

The return on capital employed (ROCE) sets earnings before interest and taxes (EBIT) in relation to the capital employed for business activities. Investment income from Siltronic and the corresponding carrying amount in equity are not included when ROCE is calculated.

In the reporting year, ROCE was -11.3 percent (2018: 5.9 percent). The decline stemmed from significantly negative EBIT. High working capital lifted capital employed, which rose from €4,917.0 million to €5,183.5 million in the year under review. It did not yet include the impairment charge on WACKER POLYSILICON's fixed assets.

Segments

WACKER SILICONES

Sales at WACKER SILICONES decreased slightly in 2019. At €2.45 billion (2018: €2.50 billion), they were down 1.8 percent year over year. The decline was attributable to lower prices for standard silicones, and to volume and product-mix effects. Changes in exchange rates had a positive impact on the sales trend. In regional terms, WACKER SILICONES lifted its sales slightly in the Americas and Asia, while sales in Europe decreased.

EBITDA also declined year over year. It fell by 22.4 percent to €478.5 million (2018: €616.6 million) due to significantly

lower prices for standard silicones. The EBITDA margin was 19.5 percent (2018: 24.7 percent).

Capital expenditures decreased by 13.1 percent year over year to €193.6 million (2018: €222.7 million). Investments focused on new facilities for downstream silicone products at Burghausen (Germany) and Zhangjiagang (China), on constructing a new pyrogenic silica plant at Charleston, Tennessee (USA), and on expanding silicon metal production at Holla (Norway). The facilities in Charleston and Holla came on stream in the second half of 2019. As of December 31, 2019, the division had 5,267 employees (Dec. 31, 2018: 5,114).

B.20 Key Data: WACKER SILICONES

€ million	2019	2018	2017	2016 ¹	2015
Total sales	2,453.0	2,499.6	2,200.2	2,001.1	1,943.3
EBITDA	478.5	616.6	444.9	361.2	276.2
EBITDA margin (%)	19.5	24.7	20.2	18.1	14.2
EBIT	375.3	536.7	362.2	280.8	194.5
Capital expenditures	193.6	222.7	142.8	88.6	82.0
R&D expenses	65.0	60.9	58.6	53.7	35.8
Employees (December 31, number)	5,267	5,114	4,737	4,566	4,353

¹ Reclassification of costs from selling expenses to R&D expenses starting in 2016

WACKER POLYMERS

Sales at WACKER POLYMERS grew by 2.6 percent in 2019, reaching €1.32 billion (2018: €1.28 billion). This increase was fueled by higher volumes for dispersions and dispersible polymer powders, and by positive exchange-rate effects.

WACKER POLYMERS strengthened its sales in Europe, the Americas and Asia, with the biggest percentage gain in Asia. In particular, polymer applications for the construction industry performed well.

EBITDA came in at €194.2 million, up 31.5 percent year over year (2018: €147.7 million). The rise was prompted by higher sales and by raw-material prices that were lower than a year earlier. The EBITDA margin was 14.8 percent (2018: 11.5 percent).

Capital expenditures declined somewhat versus the year before. They amounted to €62.4 million (2018: €71.0 million). Investments went toward capacity expansion at Nanjing (China) and Ulsan (South Korea). In September 2019, WACKER POLYMERS opened a new spray dryer for dispersions at Ulsan. The new facility has an annual production capacity of 80,000 metric tons. As of December 31, 2019, the number of employees increased to 1,630 (Dec. 31, 2018: 1,600).

B.21 Key Data: WACKER POLYMERS

€ million	2019	2018	2017	2016 ¹	2015
Total sales	1,315.1	1,282.2	1,245.1	1,194.8	1,185.5
EBITDA	194.2	147.7	205.6	261.0	222.2
EBITDA margin (%)	14.8	11.5	16.5	21.8	18.7
EBIT	153.7	108.0	168.1	223.7	184.4
Capital expenditures	62.4	71.0	48.1	37.5	47.4
R&D expenses	33.9	30.0	29.3	30.3	14.8
Employees (December 31, number)	1,630	1,600	1,539	1,484	1,461

¹ Reclassification of costs from selling expenses to R&D expenses starting in 2016

WACKER BIOSOLUTIONS

In 2019, WACKER BIOSOLUTIONS lifted its sales by 7.0 percent to €243.0 million (2018: €227.0 million). The main impetus came from higher volumes and positive exchange-rate effects. Lower prices, on the other hand, slowed sales growth. The division posted its biggest gains in biopharmaceuticals, where sales benefited from new production capacity in Amsterdam and high utilization rates at German sites. In regional terms, sales performance was good in the Americas and Asia.

At €31.1 million, EBITDA was significantly higher year over year (2018: €23.5 million). This increase was fueled by volume growth, by higher plant utilization for biopharmaceuticals and by an improved cost structure. The EBITDA margin was 12.8 percent (2018: 10.4 percent).

Capital expenditures declined year over year to €13.2 million (2018: €17.9 million), a decrease of 26.3 percent. One investment focus was the new biologics production plant in Amsterdam.

As of December 31, 2019, the division had 754 employees (Dec. 31, 2018: 709).

B.22 Key Data: WACKER BIOSOLUTIONS

€ million	2019	2018	2017	2016 ¹	2015
Total sales	243.0	227.0	205.9	206.4	197.1
EBITDA	31.1	23.5	37.5	37.0	32.2
EBITDA margin (%)	12.8	10.4	18.2	17.9	16.3
EBIT	14.0	9.8	26.1	25.7	21.0
Capital expenditures	13.2	17.9	15.7	9.1	6.2
R&D expenses	6.4	6.3	6.0	6.2	6.1
Employees (December 31, number)	754	709	533	510	491

¹ Reclassification of costs from selling expenses to R&D expenses starting in 2016

WACKER POLYSILICON

At WACKER POLYSILICON, sales fell in 2019, coming in at €780.0 million (2018: €823.5 million). That was 5.3 percent less. The decline was chiefly due to markedly lower average prices for solar-grade polysilicon. Volume growth did not compensate for this. In 2019, Asia was again the division's key sales region.

EBITDA at WACKER POLYSILICON totaled €56.9 million (2018: €72.4 million), down 21.4 percent year over year. It included insurance compensation of €112.5 million for damage incurred following the incident of 2017 at the site in Charleston (USA). Adjusted for this special income, EBITDA was €-55.6 million. Significantly lower average prices and inventory valuation adjustments weighed on EBITDA. The EBITDA margin was 7.3 percent (2018: 8.8 percent).

WACKER POLYSILICON's capital expenditures dropped significantly to €35.3 million (2018: €62.2 million). The number of employees declined to 2,333 as of December 31, 2019 (Dec. 31, 2018: 2,549).

B.23 Key Data: WACKER POLYSILICON

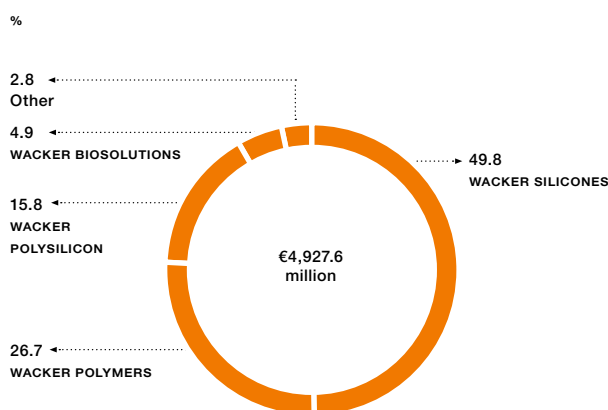
€ million	2019	2018	2017	2016 ¹	2015
Total sales	780.0	823.5	1,124.0	1,095.5	1,063.6
EBITDA	56.9	72.4	290.4	285.9	402.4
EBITDA margin (%)	7.3	8.8	25.8	26.1	37.8
EBIT	-1,012.9	-257.3	-87.6	-117.1	162.6
Capital expenditures	35.3	62.2	57.6	130.0	581.8
R&D expenses	30.0	32.8	22.6	18.3	15.3
Employees (December 31, number)	2,333	2,549	2,538	2,490	2,373

¹ Reclassification of costs from selling expenses to R&D expenses starting in 2016

Other

Sales reported under "Other" totaled €157.6 million in 2019 (2018: €170.6 million), down 7.6 percent year over year.

B.24 Divisional Shares in External Sales



"Other" EBITDA amounted to €22.4 million in the reporting year (2018: €70.6 million). The decrease was mainly due to lower investment income from Siltronic.

“Other” EBIT was €–66.7 million (2018: €–6.8 million).

As of December 31, 2019, “Other” had 4,674 employees (Dec. 31, 2018: 4,570). This WACKER segment includes site management and the employees at infrastructure units in Burghausen and Nünchritz, and at the Group’s corporate departments.

Regions

WACKER’s operations are highly international. Of the Group’s €4.93 billion in sales (2018: €4.98 billion), 83.8 percent came from international business (2018: 82.5 percent). Germany accounted for 16.2 percent.

Sales Almost Unchanged in Asia

WACKER’s sales in Asia were virtually unchanged in 2019, up 0.5 percent to €1.76 billion (2018: €1.76 billion). Sales in Greater China amounted to €1.05 billion (2018: €1.05 billion), on par with the year-earlier level. In Japan, WACKER’s sales grew, rising 11.2 percent to €170.4 million (2018: €153.2 million). In Southeast Asia, WACKER posted a slight sales increase. Asia accounted for 35.3 percent of Group sales (2018: 35.3 percent).

Business Weaker in Europe

WACKER’s business slowed in Europe. Sales decreased 4.4 percent to €2.00 billion (2018: €2.10 billion). The region accounted for 40.6 percent of Group sales (2018: 42.1 percent).

B.25 External Sales by Customer Location

€ million	2019	2018	2017	2016	2015
Europe	2,004.0	2,096.7	1,970.4	1,850.9	1,887.6
The Americas	919.5	878.2	838.7	825.6	945.1
Asia	1,763.8	1,756.9	1,886.2	1,751.6	2,253.1
Other regions	240.3	247.0	228.9	206.1	210.4
Group	4,927.6	4,978.8	4,924.2	4,634.2	5,296.2

Sales Growth in the Americas

Sales in the Americas rose 4.7 percent to €919.5 million (2018: €878.2 million) and accounted for 18.7 percent of Group sales (2018: 17.6 percent).

B.26 External Sales by Group Company Location

€ million	2019	2018	2017	2016	2015
Europe	3,977.5	4,018.3	4,029.5	3,825.2	4,466.6
The Americas	1,249.7	1,106.1	1,167.7	1,116.2	892.8
Asia	980.5	979.5	859.5	731.2	1,164.5
Other regions	13.1	13.0	12.1	10.4	9.2
Consolidation	–1,293.2	–1,138.1	–1,144.6	–1,048.8	–1,236.9
Group	4,927.6	4,978.8	4,924.2	4,634.2	5,296.2

Other Regions

Sales in the “other regions” of the world declined slightly, down 2.7 percent to €240.3 million (2018: €247.0 million).

Net Assets

WACKER’s total assets were 9 percent lower compared with December 31, 2018. Declining by €627.7 million, they amounted to €6.49 billion as of December 31, 2019 (Dec. 31, 2018: €7.12 billion). The largest changes related to property, plant and equipment, which was impacted by an impairment charge of €760.0 million on WACKER POLYSILICON’s fixed assets. On the equity and liabilities side, provisions for pensions increased due to lower discount rates. These two factors led to a substantial decline in equity.

B.27 Trends: Assets

€ million	2019	2018	Change in %
Intangible assets, property, plant and equipment, investment property and right-of-use assets	2,801.8	3,565.3	-21.4
Investments in joint ventures and associates accounted for using the equity method	640.4	658.3	-2.7
Other noncurrent assets	700.8	639.9	9.5
Noncurrent assets	4,143.0	4,863.5	-14.8
Inventories	979.8	1,010.7	-3.1
Trade receivables	631.5	681.9	-7.4
Other current assets	736.7	562.6	30.9
Current assets	2,348.0	2,255.2	4.1
Total assets	6,491.0	7,118.7	-8.8

Impairment of €760.0 Million on Fixed Assets

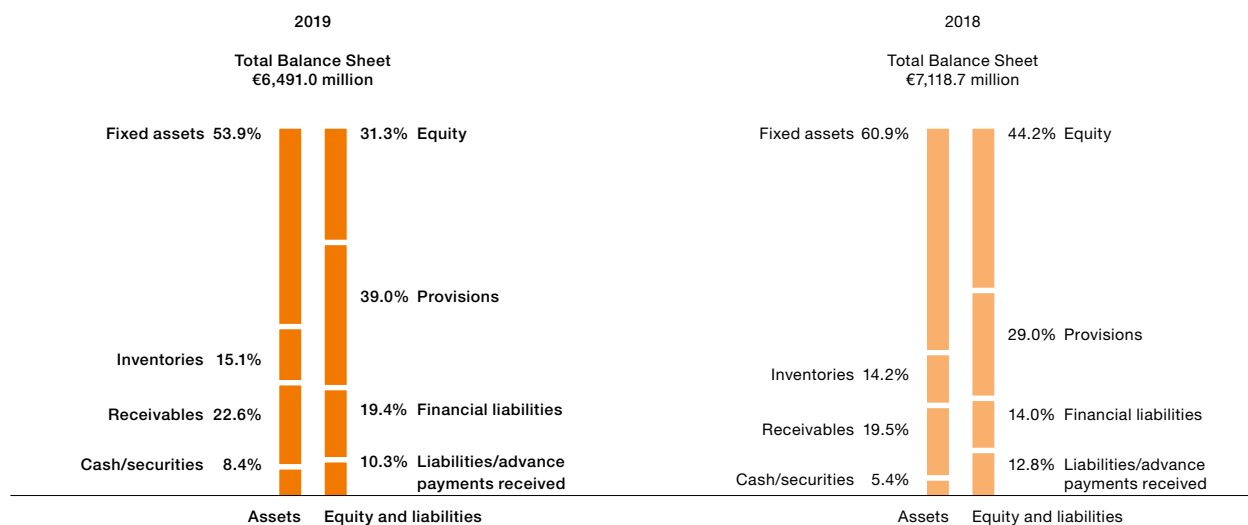
Relative to the end of the previous year, fixed assets (including equity-accounted investments) fell by €781.4 million to €3.44 billion (Dec. 31, 2018: €4.22 billion). Property, plant and equipment dropped correspondingly to €2.64 billion (Dec. 31, 2018: €3.53 billion). This was due to a year-end impairment

charge of €760.0 million on WACKER POLYSILICON's fixed assets, which primarily affected facilities in the USA. Current depreciation/amortization amounted to €554.9 million. Capital expenditures fell to €379.5 million, after €460.9 million in 2018. Investments focused on WACKER SILICONES and WACKER POLYMERS, as well as on infrastructure measures. Over half of investment spending was in Germany. Changes in exchange rates increased the carrying amount of property, plant and equipment by about €38 million.

On the assets side, right-of-use assets from leases were recognized for the first time. Simultaneously, financial liabilities from leases rose. A total of €119.8 million in right-of-use assets from leases was reported as of December 31, 2019. WACKER's investment property included right-of-use assets in the amount of €7.1 million for long-term sublease agreements for parts of its Munich headquarters.

Income from investments in joint ventures and associates was €54.3 million, while distributions totaled €48.8 million. Siltronic AG is the main investment, with an equity-accounted carrying amount of €591.6 million (Dec. 31, 2018: €616.6 million). Other measurement effects decreased the carrying amount of equity-accounted investments. Overall, the carrying amount declined from €658.3 million to €640.4 million.

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B.28 Asset and Capital Structure


Other Noncurrent Assets and Securities

Other noncurrent assets totaled €700.8 million as of December 31, 2019 (Dec. 31, 2018: €639.9 million), climbing 10 percent year over year. Deferred tax assets rose markedly, from €520.9 million to €632.9 million, reflecting higher provisions for pensions.

Working Capital Up 3 Percent

Current assets grew by 4 percent year over year, amounting to €2.35 billion (Dec. 31, 2018: €2.26 billion). The increase was due mainly to the build-up of liquid assets. Inventories decreased 3 percent, from €1.01 billion to €979.8 million. This was partly due to inventory valuation adjustments at WACKER POLYSILICON.

Working capital was 3 percent higher as of December 31, 2019, amounting to €1.26 billion (Dec. 31, 2018: €1.22 billion). A drop of 3 percent in inventories and 7 percent in trade receivables had an impact there. Trade payables fell by 25 percent. The decline in trade payables at the reporting date was due to lower investment spending and to payments falling due at the end of the year. Changes in exchange rates had only a marginal effect on working capital.

B.29 Working Capital

€ million	2019	2018	Change in %
Trade receivables	631.5	681.9	-7.4
Inventories	979.8	1,010.7	-3.1
Trade payables	-355.0	-470.6	-24.6
Working capital	1,256.3	1,222.0	2.8

Liquidity Up 41 Percent

Securities and cash and cash equivalents are a major component of other current assets. Current securities amounted to €109.4 million at the end of Q4 2019 (Dec. 31, 2018: €42.0 million), with WACKER investing liquid assets in fixed-term deposits and short-term funds. As a result, cash and cash equivalents amounted to €435.8 million as of December 31, 2019 (Dec. 31, 2018: €341.1 million). Total liquid assets (current and noncurrent securities, cash and cash equivalents) grew by 41 percent year over year to €545.2 million (Dec. 31, 2018: €387.5 million). In March, WACKER took out new loans totaling €200 million. Insurance compensation of €112.5 million received for the damage incurred at the Charleston site also had a positive impact on liquidity. On the other hand, the company made a special payment of €70.7 million to the WACKER pension fund in Q4 2019. Wacker Chemie AG's dividend payment of €124.2 million and the disbursement of variable compensation in Q2 2019 also lowered liquid assets. In the prior year, liquid assets were reduced by the cost of the production shutdown in Charleston in the first months of 2018 and by the gradual production ramp-up there.

B.30 Trends: Equity and Liabilities

€ million	2019	2018	Change in %
Equity	2,029.0	3,145.5	-35.5
Noncurrent provisions	2,507.9	2,015.1	24.5
Financial liabilities	1,049.0	894.7	17.2
Other noncurrent liabilities	152.8	162.6	-6.0
Of which advance payments received	61.0	64.1	-4.8
Noncurrent liabilities	3,709.7	3,072.4	20.7
Financial liabilities	209.9	102.5	>100
Trade payables	355.0	470.6	-24.6
Other current provisions and liabilities	187.4	327.7	-42.8
Current liabilities	752.3	900.8	-16.5
Liabilities	4,462.0	3,973.2	12.3
Total equity and liabilities	6,491.0	7,118.7	-8.8
Capital employed	5,183.5	4,917.0	5.4

Equity Ratio at 31.3 Percent

Group equity declined substantially year over year. It amounted to €2.03 billion as of December 31, 2019 (Dec. 31, 2018: €3.15 billion). The corresponding equity ratio was 31.3 percent (Dec. 31, 2018: 44.2 percent). The net loss for the year reduced retained earnings by €629.6 million, versus positive net income of €260.1 million a year earlier. The dividend payment of Wacker Chemie AG reduced retained earnings by €124.2 million. The change in provisions for pensions, which was recognized in other comprehensive income, lowered other equity items by €401.7 million. Currency translation effects lifted equity by €45.0 million. The share of equity attributable to non-controlling interests amounted to €62.1 million as of the reporting date (Dec. 31, 2018: €58.3 million).

Liabilities Increase Amid Higher Provisions for Pensions

WACKER's liabilities increased by €488.8 million compared with the previous year. They rose 12 percent to €4.46 billion. Provisions for pensions were €480.3 million higher year over year and totaled €2.28 billion. This increase was attributable to lower discount rates. The discount rates were 1.25 percent in Germany (Dec. 31, 2018: 1.98 percent) and 3.16 percent in the USA (Dec. 31, 2018: 4.12 percent). Other noncurrent provisions mainly comprised anniversary provisions and provisions for environmental protection. On balance, other noncurrent liabilities were lower at €152.8 million (Dec. 31, 2018: €162.6 million). They mainly comprised contract liabilities in the form of advance payments received and of noncurrent income tax liabilities.

Trade payables decreased markedly to €355.0 million (Dec. 31, 2018: €470.6 million). This was chiefly due to lower investment spending as of the reporting date. Payments falling due at year-end were a contributing factor.

Other current provisions and liabilities fell 43 percent to €187.4 million (Dec. 31, 2018: €327.7 million). Current advance payments received amounted to €46.3 million as of the reporting date (Dec. 31, 2018: €71.7 million). On balance, personnel liabilities – including those relating to vacation, flextime and performance-related compensation – were down 52 percent at the reporting date.

Financial Liabilities Rise

Current and noncurrent financial liabilities rose by €261.7 million to €1.26 billion as of year-end (Dec. 31, 2018: €997.2 million). Changes in exchange rates had only a marginal impact on financial liabilities. In Q1 2019, WACKER took out new loans totaling €200 million at favorable conditions, taking advantage of the prevailing low interest rates. The majority of WACKER's financial liabilities are recognized in euros or US dollars. Fixed interest is payable on most of the financial liabilities.

In accordance with IFRS 16, lease liabilities were recognized under financial liabilities for the first time as of January 1, 2019. As of December 31, 2019, lease liabilities totaled €137.8 million.

For further information on our financial liabilities, please refer to Note 15 in the Notes to the Consolidated Financial Statements. For further information on the principles and goals of financial management, please refer to Note 12 in the Notes to the Consolidated Financial Statements.

Financial Position

Financial-Management Principles and Goals

Our key financial-management goal is to secure WACKER's financial strength over the long term. The central task is to sufficiently cover the financial needs of our operations and investment projects. Financial management at WACKER comprises capital-structure management, cash and liquidity management, and the management of market-price risk (currencies, interest rates). Capital-structure management involves shaping the capital structure of the Group and its subsidiaries.

In liquidity management, WACKER continuously monitors cash flows from operations and from financial business. WACKER covers the resulting liquidity needs via suitable instruments, such as intra-Group financing through borrowings, or through external loans from local banks.

WACKER pursues a careful financing policy that targets a balanced financing portfolio, a diversified maturity portfolio and a comfortable liquidity buffer. Our aim is to maintain our corporate financial structures so that the Group's credit rating remains – at a minimum – in the investment-grade range.

WACKER's key source of liquidity is the operations of its Group companies and the resulting incoming payments. This centralized system of internal transfers reduces our interest expense and the need for debt financing. The purpose of managing market-price risks is to limit the effects of fluctuations in exchange rates and interest rates on the Group's bottom line.

Financing Measures in 2019

In Q1 2019, WACKER took out bilateral loans with three banks totaling €200 million, €100 million of which matures in three years and the remaining €100 million in five.

Financial Analysis

The Group's cash flow is a key instrument of liquidity management. Net cash flow serves as the internal indicator for measuring the liquidity of operating activities.

Net Cash Flow

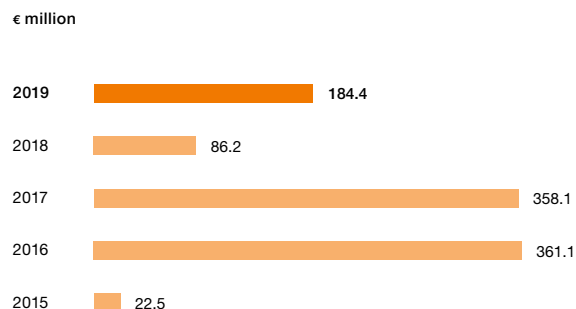
In 2019, WACKER complied with its long-term policy of financing investments essentially from its own cash flow. Net cash flow totaled €184.4 million in 2019 (2018: €86.2 million), demonstrating that long-term investments are covered largely by cash flow from operating activities.

B.31 Net Cash Flow

€ million	2019	2018
Cash flow from operating activities (gross cash flow)	605.0	509.6
Cash flow from long-term investing activities before securities	– 420.6	– 423.4
Additions from finance leases	–	–
Net cash flow	184.4	86.2

Net cash flow is the sum of cash flow from operating activities and cash flow from long-term investing activities (before securities). In 2019, WACKER changed its definition of net cash flow, with the change in advance payments received no longer being eliminated from gross cash flow. The comparative figure was adjusted accordingly and is thus €38.5 million lower.

B.32 Net Cash Flow



Gross Cash Flow

In 2019, cash flow from operating activities (gross cash flow) totaled €605.0 million (2018: €509.6 million). Aside from the negative net result for the year of €–629.6 million (2018: €260.1 million), gross cash flow was reduced by cash outflows of €35.4 million from working capital (2018: €182.7 million). The depreciation/amortization and impairments of €1.32 billion (2018: €540.4 million) in the net result includes the impairment charge on WACKER POLYSILICON's fixed assets. Cash outflows from working

capital were mainly due to payments made to settle trade payables. Lower tax payments of €10.5 million (2018: €152.0 million) benefited gross cash flow. The profit from investments in joint ventures and associates of €54.3 million (2018: €131.7 million) included in the net result reduced gross cash flow. Siltronic AG's dividend payment of €46.2 million lifted gross cash flow. The insurance compensation of €112.5 million and the special payment of €70.7 million to the pension fund also influenced gross cash flow.

B.33 Cash Flow from Operating Activities (Gross Cash Flow)

€ million

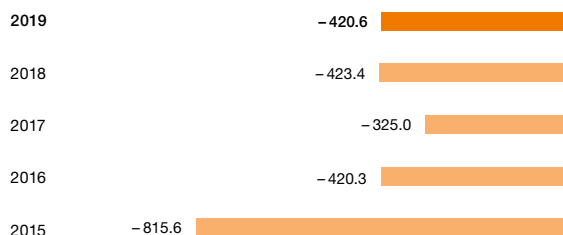


Cash Flow from Long-Term Investing Activities

The Group's investment projects influence cash flow from long-term investing activities. In 2019, cash payments of €-415.1 million for investments were on par with the year-earlier figure (2018: €-408.8 million). WACKER made over half of these capital expenditures in Germany. In the prior year, WACKER BIOSOLUTIONS paid €21.0 million to acquire a biologics production site in Amsterdam. Cash flow from long-term investing activities amounted to €-420.6 million in the 2019 reporting year (2018: €-423.4 million).

B.34 Cash Flow from Long-Term Investing Activities Before Securities

€ million



Cash Flow from Financing Activities

Cash flow from financing activities totaled €-26.2 million in the reporting year (2018: €-240.5 million). It reflects the balance of external financial liabilities of €142.0 million (2018: €-7.9 million). The dividend of €124.2 million paid by Wacker Chemie AG in Q2 2019 was a key component of cash outflows. The new accounting standard for leases meant that repayments of lease liabilities increased to €-34.8 million (2018: €-4.3 million).

Cash and Cash Equivalents

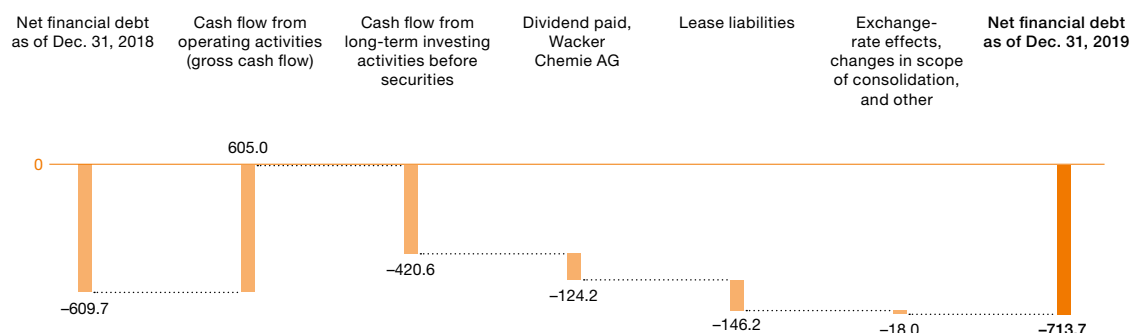
Cash and cash equivalents increased to €435.8 million (2018: €341.1 million). Liquidity from cash and from current and noncurrent securities rose as well, from €387.5 million to €545.2 million.

IFRS 16 Affects Net Financial Debt

WACKER defines net financial debt – which is one of its financial indicators – as the balance of gross financial debt (current and noncurrent financial liabilities) and existing noncurrent and current liquidity, consisting of securities, cash and cash equivalents. Net financial debt amounted to €713.7 million as of December 31, 2019 (Dec. 31, 2018: €609.7 million), up 17 percent year over year.

B.35 Net Financial Debt

€ million



The main reason for the rise of €120.3 million in net financial debt was the new method of lease accounting introduced by IFRS 16.

Aside from the financial liabilities disclosed in the report on net assets, WACKER has at its disposal adequate unused syndicated loans for around €600 million, with maturities of over one year. Our existing lines of credit provide us with enough financial scope to secure the Group's continued growth. The Group does not use any off-balance-sheet financing instruments.

Rating

WACKER has sufficient lines of credit with banks and does not issue rated financing instruments such as bonds and commercial paper. Consequently, WACKER has not published a credit rating thus far.

Proposal on Appropriation of Profits

In 2019, Wacker Chemie AG posted a retained profit of €1,324.9 million under German Commercial Code accounting rules. The Executive and Supervisory Boards will propose a dividend of €0.50 per share at the Annual Shareholders' Meeting. Based on the number of shares entitled to dividends on December 31, 2019, the total cash dividend corresponds to a payout of €24.8 million. Calculated in relation to WACKER's average share price in 2019, the dividend yield is 0.7 percent.

Executive Board Statement on Business Development and on the Group's Economic Position

In 2019, WACKER's operations were characterized by stable chemical business and by persistent price pressure in its solar-grade polysilicon business. WACKER POLYMERS and WACKER BIOSOLUTIONS generated sales growth, while WACKER SILICONES posted a slight sales decline due to

lower average prices for standard silicones. At WACKER POLYSILICON, markedly lower average prices weighed on business, although the division sold more volume.

The Group's earnings were dampened not only by significantly lower average prices for solar-grade polysilicon and the related effects of inventory valuation adjustments, but also by lower prices for standard silicones and by the steep rise in Germany's electricity prices. On balance, we did not fulfill our March 2019 projections for sales, EBITDA, the EBITDA margin, and ROCE.

Earnings performance was also influenced by special factors. On the one hand, earnings benefited from the insurance compensation received for the damage incurred at our Charleston site. On the other hand, the impairment charge on WACKER POLYSILICON's fixed assets weighed on earnings.

Personnel expenses rose slightly, both in absolute terms and as a percentage of sales. Raw-material costs edged down in absolute terms, but remained constant as a percentage of sales. Energy costs rose substantially. Total depreciation/amortization and impairments rose markedly year over year due to the impairment charge on WACKER POLYSILICON's fixed assets. Adjusted for this effect, the total was slightly higher year over year.

Group equity decreased from €3.15 billion to €2.03 billion compared with the year-earlier reporting date. The main reasons for this decline were the net loss of €-629.6 million and actuarial losses on provisions for pensions caused by the application of lower discount rates. The equity ratio came in at 31.3 percent. The Group's net financial debt increased, amounting to €713.7 million as of December 31, 2019. As planned, capital expenditures decreased to €379.5 million year over year. Net cash flow was clearly positive at €184.4 million and substantially higher year over year.

Further Information on R&D, Employees, Procurement, Production, Sales and Marketing

Research and Development

WACKER's research and development (R&D) activities pursue three goals:

- We contribute to our customers' market success by searching for solutions that meet their needs.
- We optimize our methods and processes in order to lead in technology and be sustainably profitable.
- We concentrate on creating innovative products and applications for new markets and on supporting highly promising fields, such as energy storage, renewable energy generation, electromobility, modern construction and biotechnology.

WACKER's R&D rate – research and development spending as a percentage of Group sales – reached 3.5 percent, rising versus 2018 (3.3 percent) because research activities increased.

B.36 R&D Expenses

€ million	2019	2018	2017	2016 ¹	2015
Research and development expenses	173.3	164.6	153.1	150.0	175.3

¹ Reclassification of costs from selling expenses to R&D expenses from 2016 onward

In 2019, we filed 99 patent applications (2018: 87). Worldwide, our portfolio contains about 4,200 active patents, with 1,600 patent applications currently pending. We license very little R&D know-how from third parties. The results of our research partnerships with universities are usually made available to us free of charge or by the transfer of rights of use.

We invested in new labs, equipment and tools to digitalize and automate work processes, such as digital technologies for measuring and analytics. We constructed lab and pilot reactors at the Burghausen site, at WACKER POLYMERS in South Korea and at Corporate R&D in Munich.

B.37 Investments in R&D Facilities

€ million

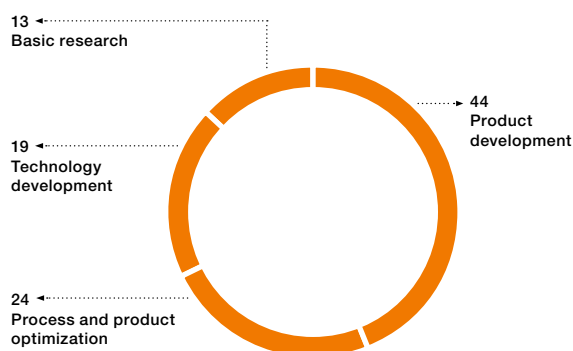


¹ Including Siltronic AG

The development of products and production methods accounted for a large part of our R&D costs. WACKER is active in many highly promising fields. The key ones range from energy recovery and storage, electronics, automotive and construction, to household products, medicine, health care, cosmetics, food and biotechnology.

B.38 Breakdown of R&D Expenditures in 2019

%



The aim of our New Solutions initiative is to develop technically and commercially superior solutions for new applications. We combine our expertise from across the company and apply it where needed.

Some of our research projects are subsidized by government grants. During the reporting period, these subsidized projects were centered on ongoing development of lithium-ion batteries.

Research and Development at Two Levels

WACKER conducts R&D at two levels: centrally at our Corporate R&D department and locally at our business divisions, where the focus is on specific applications. Corporate R&D coordinates activities on a company-wide basis and involves other departments. Further, we use Project System Innovation (PSI) software to steer the Group's product and process innovations by systematically evaluating customer benefit, sales potential, profitability and technology position.

Strategic Collaboration with Customers and Research Institutes

We collaborate with customers, scientific institutes and universities to achieve research successes more quickly and efficiently. These partnerships cover topics that include electricity storage, construction applications, as well as process simulation and development.

Back in 2006, Wacker Chemie AG joined forces with the Technical University of Munich (TUM) to establish the WACKER Institute of Silicon Chemistry, located on TUM's Garching research campus near Munich, and has funded the institute ever since.

Research Work at WACKER

In 2019, WACKER had 766 R&D staff (2018: 728), accounting for 5.2 percent of the Group's workforce (2018: 5.0 percent). Of these, 594 were employed at R&D units in Germany and 172 abroad.

Alexander Wacker Innovation Award

The Alexander Wacker Innovation Award, a €10,000 prize bestowed since 2006, is presented at the annual WACKER Innovation Days research symposium. The 2019 award was conferred on two employees for developing CAVACURMIN®. This dietary supplement contains the turmeric extract curcumin, which exhibits anti-inflammatory and anti-bacterial properties. As it is not water-soluble, curcumin is not readily absorbed in the human bloodstream. It can be used by the body much more easily when encapsulated within the ring-shaped sugar molecules of cyclodextrins.

Selected Corporate R&D Research Topics

We are performing research into the use of sustainable raw materials to reduce carbon emissions even further. Together with WACKER POLYMERS and WACKER BIOSOLUTIONS, Corporate R&D is studying new biodegradable vinyl acetate-ethylene copolymer (VAE) products.

One focus of our basic research is chemistry of low-valence silicon for use in industrial applications (such as catalysis and synthesis). In this area, we are working very closely with the WACKER Institute of Silicon Chemistry at TUM.

We are intensifying our research into silicon-based high-capacitance anode materials and, to that end, acquired a 24.99-percent stake in UK-based Nexxon Ltd. Together with this partner, we are promoting the use of silicon batteries in different cell configurations in areas such as consumer electronics and electric vehicles.

Another research focus is a new generation of ESETEC® strains for the production of biopharmaceuticals, which grants our customers precise control over the release of specific proteins from a micro-organism cell at a specific point in the production process. We are scaling these ESETEC® strains to full production and conducting tests to see if they can be used to make plasmid bacteria for pharmaceutical purposes.

We are using digital models to enhance our already highly optimized L-cystine strains in order to raise product yields for our customers. On top of that, we are developing a procedure for enzymatic conversion of L-cystine to L-cysteine without chemical electrolysis. Free of animal products, these amino acids are used by our customers in sectors such as the food industry and cosmetics.

Selected Divisional Research Projects

Researchers at WACKER SILICONES are working on concepts to use electroactive silicones in multilayered systems for sensors and actuators. The division has refined its antifoam agents – which customers use in the production of paper and liquid detergents – and is manufacturing them in pilot facilities using new technologies. For cosmetic products, we have developed hydrophilic and oleophilic elastomer gels that offer our customers new formulation options and can be tailored precisely to the specific products they are developing.

Products containing silicone resins are increasingly important in new application fields. One example is resin-modified organic polymer dispersions, which make wood coatings more resistant to UV radiation and weathering. Such products with a resin component improve the surfaces of smooth materials.

Raw materials for concrete and mortar are in short supply globally, with high-quality mixes often having to be transported over long distances. Renovations are made even more complicated when buildings are damaged by regular exposure to damp and salts. WACKER has developed silicone additives that significantly inhibit or even prevent the alkali-silica reaction that damages the building fabric. These additives allow concrete producers to use more locally available materials, thus making transport routes shorter.

In India, we have developed an additive based on organically modified silanes. Our customers use it to produce hydrophobic cement, which flows more freely even in the heat and humidity of tropical countries and protects buildings from the ingress of moisture once it is mixed to make mortar or concrete. Silicone-treated cement of this kind has enhanced properties and can be produced using less energy.

At WACKER POLYMERS, one focus of research is on sustainable functional polymer binders for use in the construction industry and in many consumer goods. We are continually improving products that are free of volatile organic compounds (VOCs), while also enabling the use of sustainable formulation components in a wide variety of materials. Another focus is on renewable raw materials and functional polymer additives for manufacturing biodegradable materials. In the reporting period, we launched functionalized polymer dispersions, dispersible polymer powders and polymer resins that our customers use to manufacture enhanced dispersion paints and high-performance composite materials. We also introduced adhesives and cementitious building materials for sustainable applications in the construction industry.

Research at WACKER BIOSOLUTIONS is geared to strengthening the division's expertise in biotechnology and microbiology. We are working on new and improved manufacturing processes for high-quality functional substances to be used in food and nutritional supplements. For our biopharmaceutical customers, we are developing

our ESETEC® production platform to enable its use in the manufacture of pharmaceutical proteins that are not easily accessible. With cyclodextrins, we are refining applications for industries such as pharmaceuticals, food and agriculture.

In the field of solar modules, huge technological progress is being made at every step of the value chain. Cell efficiency is also rising continually. The highest cell efficiencies are attainable only with the kind of hyperpure polycrystalline silicon that WACKER POLYSILICON produces. Reference studies such as the International Technology Roadmap for Photovoltaics (ITRPV) show efficiencies of over 22 percent for monocrystalline solar cells produced with PERC (passivated emitter rear cell) technology. Efficiency is a measure of how much of the radiant energy absorbed by a solar cell is transformed into electricity. High-efficiency monocrystalline cells (such as heterojunction or interdigitated back contact solar cells) achieve efficiencies of 22–24 percent. High-performance segments like these require WACKER-quality polysilicon.

Employees

Slight Increase in Workforce

WACKER's workforce increased by 0.8 percent in 2019. German sites accounted for 70.7 percent of WACKER's employees and international sites for 29.3 percent.

As a manufacturing company, WACKER has a large contingent of industrial workers (48.3 percent), roughly one-eighth (12.1 percent) of whom are women.

B.39 Number of Employees at December 31

	2019	2018	2017	2016	2015 ¹
Germany	10,356	10,291	9,984	9,775	12,251
International	4,302	4,251	3,827	3,673	4,721
Group	14,658	14,542	13,811	13,448	16,972

¹ Including Siltronic AG

Personnel expenses climbed 1.8 percent year over year to €1,253.8 million.

B.40 Personnel Expenses

€ million	2019	2018	2017	2016	2015 ¹
Personnel expenses	1,253.8	1,231.5	1,198.0	1,101.2	1,350.1

¹ Including Siltronic AG

They included outlays for social benefits and the company pension plan totaling €263.2 million (2018: €244.9 million). The rise in personnel expenses stemmed from higher employee numbers, the increase in the standard pay scale, and higher pension expenses. In September 2018, a collective-bargaining agreement was reached between the IG BCE labor union and chemical employers. As a result, the standard pay scale rose by 3.6 percent on November 1, 2018. In 2019, vacation pay was increased from €614 to €1,200 per annum. Compensation for apprentices also rose, by a total of 9.0 percent for the first two training years and by a total of 6.0 percent for the third and fourth years.

Aside from a fixed base salary, WACKER employees usually receive variable compensation. This voluntary payment to employees on both the standard and above-standard pay scales is tied to the attainment of corporate goals. In 2019, a total of €66.9 million in variable compensation was paid groupwide.

A WACKER company pension is an important compensation component. It is available at most of our German and international sites, except for regions where the statutory pension appears sufficient or legal provisions are inadequate. In Germany, WACKER employees receive a pension through Wacker Chemie AG's pension fund (Pensionskasse der Wacker Chemie VVaG). The fund has around 17,900 members and provides pension payments to some 8,600 retirees. The average pension paid in the reporting period was around €660 per month. WACKER pays in up to four times an employee's annual pension contributions, with the exact amount being determined by the type of agreement. What is more, in 2019 WACKER made an additional payment of €70.7 million to the pension fund. Employees can supplement their company pensions by making their own additional contributions. As provided for in the collective wage agreements, WACKER supports employees' supplementary contributions. Employees in Germany also receive an additional supplementary pension for that portion of their salary that exceeds the pension insurance contribution assessment ceiling.

Procurement and Logistics (unaudited section)

WACKER's procurement volume fell in 2019 to €3.4 billion (2018: €3.6 billion). This was mostly due to substantially reduced raw-material prices, but also to slightly lower purchasing volumes. At 69 percent, the procurement rate – raw materials, services and other materials as a percentage of sales – was well below the prior-year level (2018: 73 percent). At around 11,000, the number of suppliers was at the prior-year level.

At €1.9 billion, the amount spent by the Group to procure energy and raw materials was down nearly 10 percent (2018: €2.1 billion). Energy spending (electricity and natural gas) climbed some 9 percent, prompted by higher polysilicon output in the USA and by Germany's persistently high, and rising, electricity prices. This added expenditure was more than offset by raw-material savings. Raw-material quantities fell by a low-single-digit percentage versus the prior year. Additionally, raw-material prices sank by over 5 percent after two years of rising market prices.

B.41 Procurement Volumes (incl. Procurement for Capital Expenditures)

€ million	2019	2018	2017	2016	2015 ¹
Procurement volumes	3,414	3,603	3,144	2,890	3,220

¹ Including Siltronic AG

Production (unaudited section)

Compared with the prior year, production output declined by a low-single-digit percentage. On the other hand, production costs rose 5 percent. One of the main factors in this increase was that the Charleston plant was in operation for the entire year.

B.42 Plant Utilization in 2019

%	Plant Utilization Rate
WACKER SILICONES	95
WACKER POLYMERS	85
WACKER POLYSILICON	90

Capital expenditures for 2019 amounted to €379.5 million (2018: €460.9 million). Maintenance costs totaled around €445 million.

B.43 Key Start-Ups

Location	Projects	Year
Zhangjiagang, China	Silicone elastomers	2019
Ulsan, South Korea	Dispersible polymer powders	2019
Charleston, USA	Pyrogenic silica	2019
Holla, Norway	Silicon metal	2019

Priorities of the Productivity Program

The ongoing WACKER Operating System (WOS) program is helping us boost productivity along the entire value chain. The most important goal is to continue reducing specific operating costs each year. In 2019, we handled more than 600 projects, which centered on raising production output from existing plants and optimizing energy consumption. The WOS ACADEMY held courses in which over 100 employees were trained in the use of productivity methods such as Six Sigma and LEAN.

Sales and Marketing (unaudited section)

While sales at WACKER POLYMERS and WACKER BIOSOLUTIONS rose, WACKER SILICONES posted a slight sales decline due to volume and product-mix effects and lower prices for standard silicones.

WACKER's chemical business is geared to three customer groups: key accounts, regional customers and distributors. Currently, WACKER has 37 key accounts, through which it generated around 23 percent of its total chemical sales in 2019. More than 50 percent of sales stemmed from about 5,000 active relationships with other customers. Around 23 percent came from distributors, with 20 key distributors accounting for about 50 percent of all distributor sales.

Marketing communication plays a central role in supporting branding and the sale of products. In 2019, WACKER spent €14.8 million on marketing communication (2018: €17.8 million).

Attendance at 114 Tradeshows Worldwide

In 2019, WACKER attended 114 tradeshows around the world. We analyze the success of tradeshow communication in both qualitative and quantitative terms.

Management Report of Wacker Chemie AG

(Additional Information Pursuant to the German
Commercial Code)

The management report of Wacker Chemie AG and the Group management report for 2019 are combined in accordance with Section 315 (5) in connection with Section 298 (2) of the German Commercial Code (HGB). The annual financial statements of Wacker Chemie AG (prepared in accordance with the German Commercial Code) and the combined management report are published simultaneously in the electronic version of Germany's Federal Gazette.

The combined management report includes a separate section covering all reporting elements pertaining to Wacker Chemie AG that are required by law. Further to our report on the WACKER Group, we explain developments at Wacker Chemie AG.

Wacker Chemie AG is the parent company of the WACKER Group and is headquartered in Munich, Germany. The parent company operates through four business divisions – WACKER SILICONES, WACKER POLYMERS, WACKER BIOSOLUTIONS and WACKER POLYSILICON – which generate a substantial portion of the Group's sales. Wacker Chemie AG's directly and indirectly held subsidiaries and investments located in Germany and abroad have a strong influence on its business. It has a total of 53 subsidiaries, joint ventures and associated companies, and also provides the Group with corporate functions. Wacker Chemie AG's Executive Board exercises key management functions for the Group as a whole, which include determining the Group's strategy, allocating resources (such as funds for investment spending), and bearing responsibility for managing executive personnel and corporate finances. Wacker Chemie AG's Executive Board also oversees communications with important stakeholders, especially the capital markets and shareholders.

The key performance indicators used in corporate management are implemented groupwide in the business divisions. Corporate goals are defined and reported for the divisions on a groupwide basis. Even though Wacker Chemie AG is an independent entity, no separate key performance indicators are defined or reported for it. For more information, please refer to the respective details provided for the WACKER Group as a whole. The general business conditions of Wacker Chemie AG are essentially the same as those of the Group.

The annual financial statements of Wacker Chemie AG were prepared in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). These statements differ substantially from the IFRS figures in relation to fixed assets, depreciation/amortization and impairments, right-of-use assets and financial liabilities in connection with lease accounting, provisions for pensions, and deferred taxes. As regards EBITDA, there are only slight differences between IFRS and HGB figures.

B.44 Statement of Income

€ million	2019	2018
Sales	3,779.0	3,871.3
Changes in inventories	-13.3	72.4
Other capitalized self-constructed assets	37.1	29.1
Operating performance	3,802.8	3,972.8
Other operating income	216.0	123.8
Cost of materials	-2,070.1	-2,087.6
Personnel expenses	-989.7	-908.2
Depreciation/amortization and impairments	-224.7	-238.9
Other operating expenses	-791.0	-747.6
Operating result	-56.7	114.3
Result from investments in subsidiaries, joint ventures and associates (incl. impairment losses and reversals)	107.6	243.1
Net interest result	-121.8	-75.8
Other financial result	-1.4	-5.4
Financial result	-15.6	161.9
Income before taxes	-72.3	276.2
Income taxes	39.3	-72.9
Net result	-33.0	203.3
EBITDA¹	168.0	353.2

¹ EBITDA is the operating result before depreciation/amortization, impairments and reversals of fixed assets.

Wacker Chemie AG's Earnings Pursuant to the German Commercial Code

Wacker Chemie AG's earnings were marked by a negative operating result due to a decline in operating performance of €170.0 million. Wacker Chemie AG posted a net loss of €-33.0 million at year-end, down €236.3 million from the prior-year level.

Sales fell from €3.87 billion to €3.78 billion, a decrease of 2 percent. Compared with the prior year, sales in each of the divisions were either at the same level or lower. WACKER SILICONES' sales were on par with the previous year at €1.84 billion (2018: €1.88 billion). WACKER POLYMERS posted a slight increase in sales to €805.6 million (2018: €802.1 million). WACKER BIOSOLUTIONS achieved sales of €152.5 million, almost equivalent to the prior-year figure of €153.0 million. WACKER POLYSILICON's sales contracted by 5 percent to €783.1 million (2018: €825.0 million), with higher volumes not fully compensating for lower prices.

Cost of materials also included procurement costs for contract manufacturing of polysilicon by Wacker Polysilicon North America L.L.C. The latter resumed production in 2019 after the incident that took place in 2017. The cost of materials decreased by €17.5 million in 2019 to €2.07 billion (2018: €2.09 billion), mainly due to lower procurement prices and reduced volumes for strategic raw materials. On average, prices for ethylene, methanol and vinyl acetate monomer were somewhat cheaper than in 2018. Prices for silicon metal, another raw material, were also lower after reaching a high in the prior year. Energy costs, on the other hand, were slightly higher. Overall, the material-to-assets ratio was higher at 54.4 percent (2018: 52.5 percent) due to the decline in operating performance.

Personnel expenses rose 9 percent to €989.7 million (2018: €908.2 million). The reasons for this rise were collective bargaining agreements and non-recurring expenses to secure the future financing of the pension fund (Pensionskasse der Wacker Chemie VVaG). The decline in the variable compensation component had a contrary effect. As of December 31, 2019, Wacker Chemie AG had 10,093 employees (Dec. 31, 2018: 10,033). The employee-expense ratio rose to 26.0 percent (2018: 22.9 percent).

Depreciation/amortization and impairments decreased again, falling to €224.7 million (2018: €238.9 million), a decline of 6 percent.

The other operating result (other operating income less other operating expenses) increased by €48.8 million to €–575.0 million (2018: €–623.8 million). This was primarily due to special income from insurance compensation for the damage caused by the incident at the Charleston, Tennessee (USA) site in 2017. Other operating expenses include not only exchange-rate losses, but also selling expenses, maintenance, other contractor work, rents, servicing costs, R&D costs and costs assumed on behalf of subsidiaries. In particular, expenses for maintenance and IT services were higher in 2019. The foreign currency result declined by €7.9 million to €–13.0 million (2018: €–5.1 million).

The operating result was €–56.7 million (2018: €114.3 million).

The result from investments in subsidiaries, joint ventures and associates contained income from profit-and-loss transfer agreements and dividend payments. This income of €107.6 million was higher than the prior-year figure of €66.6 million. The increase was primarily attributable to higher earnings at the German subsidiary Wacker Biotech GmbH and to Siltronic AG's substantially higher dividend payment. In the previous year, the result from investments in subsidiaries, joint ventures and associates was influenced by non-recurring effects from impairment-loss reversals totaling €176.7 million on the carrying amounts recognized for Dow Siloxane (Zhangjiagang) Holding Co. Private Ltd., Singapore, Wacker Chemicals Fumed Silica (Zhangjiagang) Holding Co. Ltd., Singapore, and Wacker Chemicals (China) Co. Ltd., Shanghai, China.

The net interest result declined to €–121.8 million (2018: €–75.8 million). It included not only higher interest expenses of €93.8 million (2018: €84.0 million) from pension obligations, but also subsequent reimbursement of subsidiaries. As the loan to the subsidiary Wacker Chemical Corp., Adrian, Michigan (USA), was repaid in full, interest income was also lower year over year.

The income tax item was impacted by the loss the company posted in the year under review. Wacker Chemie AG – including those of its German subsidiaries with which it has profit-and-loss transfer agreements – recognized tax income of €39.3 million (2018: €–72.9 million).

The fiscal year ended with a net loss of €–33.0 million. Retained profit for 2019 – calculated as the profit carried forward from the previous year less €124.2 million in dividends paid – totaled €1.32 billion (2018: €1.48 billion).

Net Assets and Financial Position of Wacker Chemie AG Pursuant to the German Commercial Code

Wacker Chemie AG's total assets increased 3 percent year over year to €5.48 billion (Dec. 31, 2018: €5.34 billion). The individual balance-sheet items did not develop uniformly.

B.45 Statement of Financial Position

€ million	2019	2018
Assets		
Intangible assets	8.8	11.2
Property, plant and equipment	992.8	1,008.5
Financial assets	2,704.8	2,689.6
Fixed assets	3,706.4	3,709.3
Inventories	606.7	624.3
Trade receivables	365.5	397.2
Other receivables and other assets	350.2	300.2
Receivables and other assets	715.7	697.4
Securities and fixed-term deposits	107.7	40.7
Cash on hand and bank deposits	339.4	266.5
	447.1	307.2
Current assets	1,769.5	1,628.9
Prepaid expenses	4.7	5.8
Total assets	5,480.6	5,344.0
Equity and Liabilities		
Subscribed capital	260.8	260.8
Less nominal value of treasury shares	–12.4	–12.4
Issued capital	248.4	248.4
Capital reserves	157.4	157.4
Other retained earnings	1,000.0	1,000.0
Retained profit	1,324.9	1,482.1
Equity	2,730.7	2,887.9
Provisions for pensions and similar obligations	912.9	821.6
Other provisions	326.3	458.2
Provisions	1,239.2	1,279.8
Financial liabilities	1,061.1	634.1
Trade payables	212.6	268.7
Other liabilities	218.3	251.9
Liabilities	1,492.0	1,154.7
Deferred income	18.7	21.6
Total equity and liabilities	5,480.6	5,344.0

Fixed assets were virtually unchanged year over year, amounting to €3.71 billion (Dec. 31, 2018: €3.71 billion). Property, plant and equipment was slightly lower year over year, as depreciation and impairments in the amount of €218.0 million (Dec. 31, 2018: €231.9 million) exceeded investment spending of €208.3 million (Dec. 31, 2018: €213.8 million). Financial assets grew slightly, from €2.69 billion to €2.70 billion, due to the capital increase for the subsidiary Wacker Chemicals Korea Inc. and the acquisition of a 25-percent stake in UK battery specialist Nexxon Limited. The full repayment of noncurrent fund assets in the year under review had a contrary effect. Overall, fixed assets accounted for 68 percent of total assets, compared with 69 percent in the prior year.

Inventories decreased slightly year over year, coming in at €606.7 million (Dec. 31, 2018: €624.3 million). This decline of 3 percent was due, on the one hand, to lower raw-material costs and, on the other, to a drop in selling prices, especially at WACKER POLYSILICON. In addition, trade receivables declined 8 percent, amounting to €365.5 million as of the reporting date (Dec. 31, 2018: €397.2 million).

Other receivables and other assets grew 17 percent to reach €350.2 million as of the reporting date (Dec. 31, 2018: €300.2 million). They included receivables from affiliated companies in the amount of €271.4 million (Dec. 31, 2018: €189.6 million). The increase resulted chiefly from short-term financing in the amount of €95 million for the subsidiary Wacker Chemicals Norway AS, Holla, Hemne, Norway.

As of December 31, 2019, Wacker Chemie AG held €107.7 million in fixed-term deposits with maturities of over three months (Dec. 31, 2018: €40.7 million). Wacker Chemie AG's bank deposits amounted to €339.4 million as of December 31, 2019 (Dec. 31, 2018: €266.5 million).

Equity came to €2.73 billion as of the reporting date (Dec. 31, 2018: €2.89 billion), yielding an equity ratio of 49.8 percent (Dec. 31, 2018: 54.0 percent). At Wacker Chemie AG's annual shareholders' meeting, a resolution was passed to distribute a dividend of €124.2 million from the retained profit for 2018. The remaining retained profit of €1,357.9 million was carried forward. As of December 31, 2019, retained profit totaled €1,324.9 million and mainly comprised the current

net result of €–33.0 million for 2019 and the non-distributed profit carried forward from the preceding year.

Provisions for pensions and similar obligations rose by €91.3 million year over year to €912.9 million (Dec. 31, 2018: €821.6 million). Other provisions – primarily comprising those for taxes, personnel and environmental protection – decreased in 2019 and amounted to €326.3 million (Dec. 31, 2018: €458.2 million). This was due, above all, to the decline of €132.3 million in tax provisions and provisions for personnel. In particular, provisions for variable-compensation components fell substantially. Provisions accounted for 23 percent of total equity and liabilities (Dec. 31, 2018: 24 percent).

As of the reporting date, financial liabilities amounted to €1,061.1 million (Dec. 31, 2018: €634.1 million), up 67 percent. Bank loans amounted to €770.3 million (Dec. 31, 2018: €583.9 million). Liabilities due to affiliated companies grew by €239.4 million to €286.0 million as of the reporting date (Dec. 31, 2018: €46.6 million). The overall share of financial liabilities in total equity and liabilities increased to 20 percent (Dec. 31, 2018: 12 percent).

Trade payables decreased by €56.1 million year over year to €212.6 million (Dec. 31, 2018: €268.7 million). As of the reporting date, other liabilities amounted to €218.3 million (Dec. 31, 2018: €251.9 million). This decrease was largely due to the decline in advance payments received under polysilicon contracts.

Deferred income came to €18.7 million as of the reporting date (Dec. 31, 2018: €21.6 million) and mainly comprised a payment by Siltronic AG to Wacker Chemie AG for the transfer of employees. A portion of this item was reversed in 2018 when Siltronic AG ended its employee transfer program. The residual amount will be reversed over the remaining period of service of the transferred employees.

Cash flow from operating activities decreased year over year, falling by €32.9 million to €96.9 million (2018: €129.8 million).

The cash outflow for investing activities came to €298.0 million and included investments in property, plant and equipment and additions to the portfolio of fixed-term deposits. In addition, financing of the expansion of production at the subsidiary Wacker Chemicals Korea Inc., Seoul, was finalized by means of a capital increase via an intermediate holding company. Full repayment of the WMM Universal-Fonds deposits had a contrary effect. In the prior year, the cash outflow for investing activities was considerably higher at €662.7 million, mainly due to changes in financing for the subsidiary Wacker Polysilicon North America L.L.C. As a result of these factors, net cash flow – defined as the sum of cash flow from operating activities and cash flow from long-term investing activities (before fixed-term deposits) – improved substantially in the year under review, coming in at €–139.0 million (2018: €–767.7 million).

Cash flow from financing activities was once again clearly positive at €273.9 million (2018: €582.9 million). A key influencing factor in fiscal 2019 was the receipt of funds from us subsidiaries under the cash-pooling program in place. In addition, bank loans of €186.4 million were raised on balance in 2019 (2018: €285.9 million). The dividend paid in 2019 led to a cash outflow of €–124.2 million. The main change in the prior year was the repayment of an intra-Group loan by the subsidiary Wacker Polysilicon North America L.L.C.

Liquidity – defined as the sum of the securities in current assets and of cash on hand and bank deposits – amounted to €447.1 million as of December 31, 2019. In the prior year, liquidity amounted to €313.1 million and also included WMM Universal-Fonds securities. The balance of liquidity and liabilities to financial institutions resulted in net financial debt of €–323.2 million (2018: €–270.8 million).

Risks and Opportunities

Wacker Chemie AG's business performance is subject to essentially the same risks and opportunities as the WACKER Group. Wacker Chemie AG's exposure to the risks associated with its subsidiaries and investments depends on the size of its stakes in the respective entities. The measurement of joint ventures and associates is affected in particular by the risks specified in the Risk Management Report. Through our subsidiaries and holdings, we could face impairments arising from legal or contractual contingencies (especially financing). These contingencies are explained in the Notes to the financial statements of Wacker Chemie AG. As the parent company of the WACKER Group, Wacker Chemie AG is integrated in the groupwide risk management system.

» For further details, see the Financial Instruments section of this Annual Report. A description of the internal control system for Wacker Chemie AG, as mandated by Section 289 (5) of the German Commercial Code (HGB), can be found in the section on the Internal Control System (ICS) and the Internal Control System for Accounting.

Outlook

WACKER's main planning assumptions relate to raw-material costs, energy costs, personnel expenses and exchange rates. For 2020, we anticipate a euro exchange rate of US\$1.15. The expectations for Wacker Chemie AG's business performance in the coming year are essentially the same as those for the WACKER Group, which are explained in full in the Group's Outlook section.

We assume that sales will rise slightly year over year. We expect Wacker Chemie AG to post a higher loss than last year. At present, it is not possible to reliably predict the impact of the fast-spreading coronavirus on global economic trends.

Publication

The annual financial statements of Wacker Chemie AG have been submitted to the publisher of the German Federal Gazette and can be viewed on the website of the German register of companies. KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, audited the annual financial statements and issued an unqualified audit certificate for them. The statement of financial position and statement of income are the main parts of the annual financial statements published in this Annual Report. Wacker Chemie AG's annual financial statements are published together with those of the WACKER Group. The annual financial statements can be requested from Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany. They can also be accessed on the internet.

Risk Management Report

Description and Statement Relating to Risk and Compliance Management

Integrated Approach to Risk and Compliance Management

Risk and compliance management are an integral part of corporate management at WACKER. As a global company, we are exposed to numerous risks directly attributable to our operational activities. Starting from an acceptable level of overall risk, the Executive Board decides which risks we should take to utilize opportunities available to the company. The goal of risk management at WACKER is to identify risks as early as possible, to evaluate them adequately and to take appropriate steps to reduce them. We define risks as internal and external events that may have a negative effect on the attainment of our targets and forecasts. Compared with the previous year, we made no fundamental changes to our existing risk management system in 2019.

As a chemical company, we have a particular responsibility to ensure plant safety and protect human health and the environment. At all our production sites, there are employees who are responsible for plant and workplace safety and for health and environmental protection. Our risk management system complies with legal requirements and

is integral to all our decisions and business processes. The Executive and Supervisory Boards are regularly informed about the current risk status in the Group and at each business division.

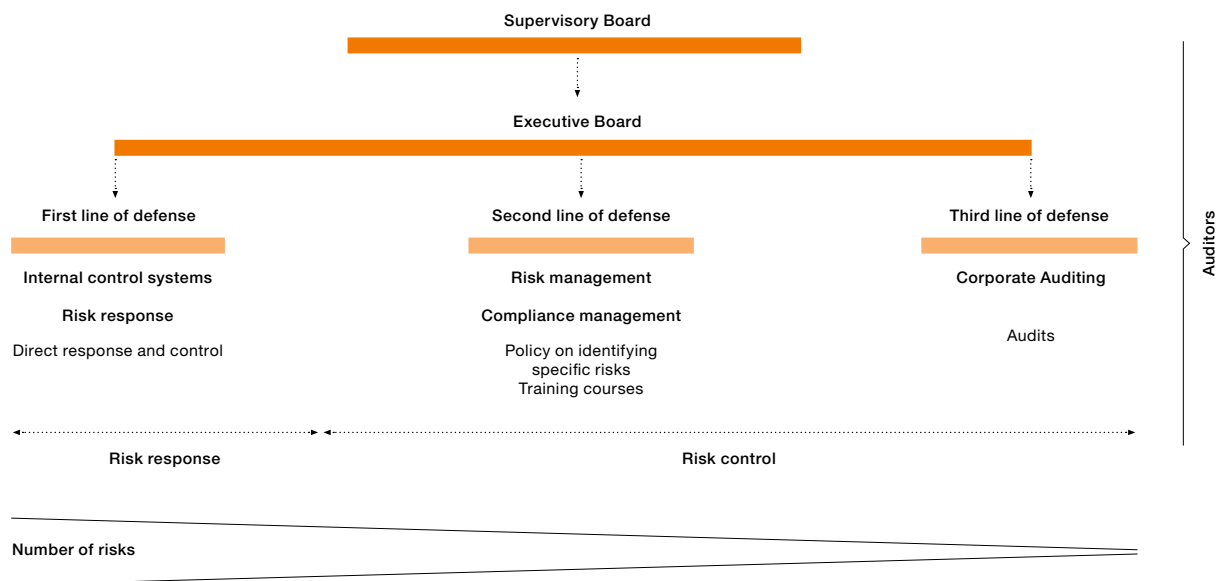
WACKER follows the Three Lines of Defense model to effectively manage corporate risks and ensure compliance with legal provisions and the ethical principles of corporate management.

» See Figure B.46 on page 75

The first line of defense lies with the managers of operating activities. They are responsible for handling risks there, including risk responses and risk control. This involves setting up functioning internal control systems in their operational units.

The second line of defense is formed by risk management and compliance management. Risk management involves systematically tracking the main risks facing operational units and reporting on the risks to the Executive Board. Compliance management ensures that the ethical principles of corporate management are observed. The Compliance Management team identifies the relevant legal requirements and amendments, forwards them to all affected corporate units and holds courses on compliance for employees. The tax compliance management system ensures that Wacker Chemie AG and its subsidiaries comply fully and punctually with their obligations under tax law. Early involvement of the tax department and checks on preliminary tax-related processes help minimize the corresponding risks.

B.46 Three Lines of Defense Model



A third line of defense is provided by the Corporate Auditing department, which acts as an independent monitoring body for the Executive Board. This department conducts audits at regular intervals to review the risk management activities in place at the various corporate units and to check whether the internal control systems run by the operational units are effective. Corporate Auditing also liaises with the Compliance Management team, for example if anti-corruption investigations are undertaken or related measures implemented.

Internal Control System (ICS) and Internal Control System for Accounting

Our internal control system (ICS) is an integral component of our risk management system.

The objective of the internal control system for accounting is to ensure consistent compliance with legal requirements, generally accepted accounting principles and International Financial Reporting Standards (IFRSs), and thus avoid misstatements in Group accounting and external reporting.

In addition to the ICS principles already mentioned, we perform assessments and analyses to help identify and minimize any risks that may directly influence financial reporting. We enlist external experts to reduce the risk of accounting misstatements in complex and challenging issues, such as pensions.

complies with statutory provisions, accounting standards and internal accounting rules. The accounting manual, which is applicable groupwide and available on the WACKER intranet, represents a key accounting guideline. The manual specifies binding rules for groupwide accounting and assessment. The Group regulation on accounting contains uniform stipulations for the organizational responsibility of accounting-related topics. The organizational workflow is also defined in accounting and organizational regulations, and in book-entry instructions. Corporate Accounting monitors compliance with reporting obligations and deadlines. By separating financial functions between accounting, statement analysis and strategy, we ensure that potential errors are identified prior to finalization of the statements and that accounting standards are complied with.

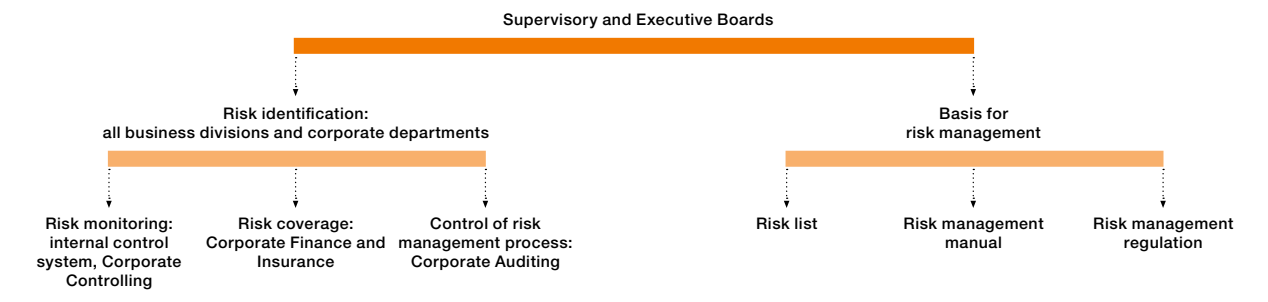
Our subsidiaries ensure that all regulations are implemented in their local regions. Corporate Accounting assists them in this task and monitors the process. The reported data is verified both by automatic system validation, and by reports and analyses. We safeguard the effectiveness of controls not only by gathering feedback from the employees involved, but also by continually monitoring key financial indicators in our monthly management reports and in system-based test runs. Moreover, regular external audits are carried out, as well as external reviews at year-end and at the end of the first six months.

Each quarter, managers at our divisions, corporate departments and subsidiaries confirm for their areas that all key issues for the quarterly and annual financial statements have been reported.

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Our internal accounting control system is designed to ensure that our accountants process every business transaction promptly, uniformly and correctly, and that reliable data on the Group's earnings, net assets and financial position is available at all times. Our approach here

B.47 Risk Management System



The Supervisory Board is also integrated into the internal control system through its Audit Committee. In particular, the Audit Committee monitors the accounting process, the effectiveness of the internal-control and risk-management systems, and the auditing procedures. Further, the Committee reviews the documents for Wacker Chemie AG's separate financial statements and the WACKER Group's annual and quarterly consolidated financial statements as well as the combined management report for these statements, and discusses them with the Executive Board and the auditors.

We deploy user-authorization systems, data-release policies and access restrictions to protect all financial systems from misuse. However, even with adequate and functioning systems in place, we cannot guarantee that the internal control system will be 100-percent effective.

Risk Response

WACKER focuses on identifying, evaluating, responding to, and monitoring risks as part of a transparent risk management and control system for all company processes. The system is based on a defined risk strategy and an efficient reporting procedure. The Executive Board regularly reviews and enhances the risk strategy and provides the Supervisory Board's Audit Committee with regular briefings on existing risks.

All corporate areas are integrated into the risk management system. It consists of three intermeshed aspects:

- Division-specific risk management and early-warning systems
- Groupwide risk coverage
- Groupwide risk mapping

The CFO has overall responsibility for the effectiveness and appropriateness of the risk management systems.

Risk Management Structures and Tools

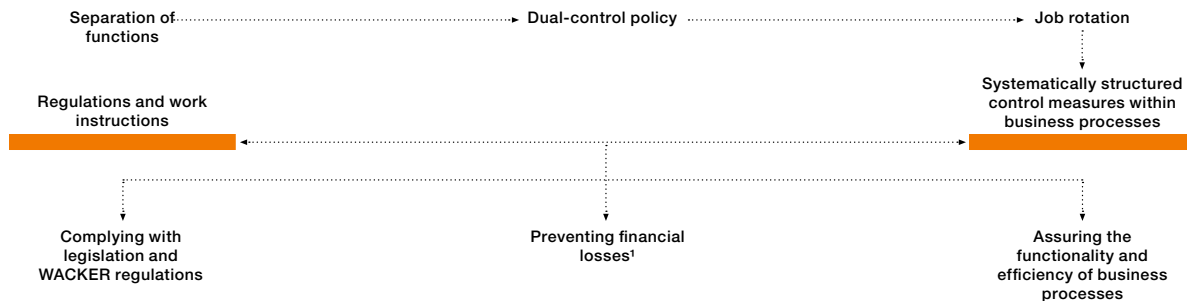
This groupwide system draws on existing organizational and reporting structures, supplemented by additional elements:

- The risk management manual: contains the system's principles and processes. It explains reportable levels of risks and how risks are to be covered and mapped.
- The risk management regulation: stipulates groupwide reporting requirements and when a specific committee must be informed.
- The risk management coordinator: oversees the risk management system and is supported by local risk coordinators.
- The risk list: contains specific risks that our business divisions and other corporate sectors face. Reporting is mandatory for individual risks where the effect on earnings would exceed €5 million.

Risk Identification

WACKER identifies risk on two levels: divisional and Group. We employ various instruments to detect and recognize risk. These include order-intake trends, market and competition analyses, customer talks, and ongoing observation and analysis of the economic environment.

B.48 Basis of Our Internal Control System (ICS)



¹ Possible financial losses due to the intentional or inadvertent misconduct of our employees or third parties

Assessment, Quantification and Management of Risks

We analyze each identified risk's probability of occurrence and potential effect on earnings. Corporate Controlling compiles a monthly report to inform the Executive Board of current and expected business developments and their associated risks. We evaluate risks and opportunities at regular meetings with our divisions and weigh them up against each other.

Corporate Controlling's task is to ensure that our risk management standards are implemented and our risk management process is enhanced. It is responsible for recording all significant risks groupwide and evaluating them systematically. Significant risks and those endangering the company's continued existence are communicated immediately via ad-hoc reports. As WACKER's business divisions are responsible for their own results, this process is closely interwoven with operational controlling. Individual divisional risks are identified and evaluated on a monthly basis.

Financial risks are managed by Corporate Finance and Insurance. Corporate Accounting & Tax monitors receivables management with respect to customers.

Compliance Management

WACKER's ethical principles of corporate management exceed the statutory requirements. The Compliance Management department is responsible for ensuring that these principles and all related legislation are observed throughout the company. Training courses on compliance raise employees' awareness of the relevant risks and convey binding rules of behavior for daily work routines. These aspects are covered by WACKER's compliance regulation. Employees are instructed to inform their supervisors, the compliance officers, the employee council or their designated HR contacts of any violations that come to their attention. They also have the option of reporting suspected violations anonymously via a protected channel.

The Group's compliance officers are responsible for implementing these rules and regulations, and are on hand to advise employees on all matters relating to compliance. Prevention is a key aspect of the compliance officers' work. They train, inform and advise employees and management on, for example, strategies and measures to prevent corruption and other breaches of the law. In 2019,

no major infringements of compliance were identified that were subject to the above-mentioned reporting threshold of an effect on earnings of more than €5 million.

Corporate Auditing

The third line of defense is provided by WACKER's Corporate Auditing department, which acts as an independent monitoring body for the Executive Board. This department shares responsibility for effective internal control systems throughout the various operational processes and systems. When setting up an internal control system, the operational units must apply certain principles, such as a policy of dual control. These principles are defined in an internationally applicable regulation, where they are explained in more detail for critical functions.

On behalf of the Executive Board, Corporate Auditing performs regular, mainly process-specific, reviews of all relevant functions and corporate units, focusing on internal control systems. Audit topics are selected using a risk-driven approach. This takes account of risk management reporting, as well as the reports and information provided by the corporate departments, business divisions and major joint ventures/associates. The auditing schedule is supplemented and approved by the Executive Board, and discussed with the Audit Committee. If necessary, the schedule can be adjusted flexibly during the year to accommodate any changes in underlying conditions.

Any process-optimization measures derived from the audits are implemented and systematically monitored by the Corporate Auditing department. The latter provides the Executive Board and Audit Committee with regular reports on the results and implementation status of the various measures.

Nothing came to our attention in the year under review that would endanger the proper functioning of the internal control systems or have an effect on earnings subject to the above-mentioned reporting threshold of more than €5 million.

Audits

When auditing our annual financial statements, the external auditors examine our early-warning system for detecting risks. The auditors then report to the Executive and Supervisory Boards.

Central Risk Areas

Defining the Probability and Impact of Risk Occurrence

We have defined categories to describe the probability that risks we identify will occur. This provides a framework for understanding our assessment of individual areas of risk. In percentage terms, our categories define the range of probability as follows:

- Unlikely: under 25 percent
- Possible: 25–75 percent
- Likely: over 75 percent

We also use categories to describe how the occurrence of the risks listed might affect the Group's earnings, net assets or financial position. We assess the possible effect on earnings using the net method, i.e. after taking appropriate countermeasures, such as establishing provisions or hedging. The following categories define the ranges:

- Low: up to €25 million
- Medium: up to €100 million
- High: over €100 million

The table shows our estimation of the probability of risks and of how the occurrence of those risks might affect the Group's earnings, net assets or financial position. The statements refer to the forecast period, thus to 2020.

Overall Economic Risks

Scenario: Economic slowdown.

Impact on WACKER: Production-capacity utilization drops, specific production costs rise, and the Group's sales and earnings decline.

Measures: We counter this risk by continuously monitoring economic trends in our key sales markets. Should the economy start slowing, we take early precautions to quickly adjust production capacities, resources and inventories to customer demand. In such a case, we concentrate capacity utilization on production locations with the best cost position, for example.

B.49 Probability and Possible Impact of Our Risks in 2020

Risk/Category	Probability	Possible Impact
Overall economic risks	Possible	Medium
Sales-market risks		
Chemicals	Possible	Medium
Polysilicon	Possible	High
Procurement-market risks	Possible	Medium
Investment risks	Unlikely	Medium
Production and environmental risks	Unlikely	Medium
Financial risks		
Credit risk	Unlikely	Low
Currency-exchange and interest-rate risks	Possible	Medium
Liquidity risk	Unlikely	Low
Pensions	Possible	High
Legal risks	Unlikely	Low
Regulatory risks		
Energy transition in Germany	Possible	Medium
Polysilicon trade restrictions	Possible	High
New regulations for production processes and products	Likely	Low
IT risks	Unlikely	Medium
Personnel-related risks	Unlikely	Low
External risks	Likely	High

Evaluation and Risk Assessment: Although economists forecast further global growth for 2020, they scaled back their expectations markedly during the reporting year, given the mounting risks to the world economy, particularly trade disputes.

At present, we see no concrete signs that economic activity will diverge substantially from the experts' projections. Due to the heightened risks, though, we consider it possible that the world economy will fall short of current expectations for 2020. Should global economic activity prove weaker than currently anticipated, this would have a medium impact on WACKER's earnings.

Sales-Market Risks

Scenario 1: Overcapacity at our chemical divisions.

Impact on WACKER: Price and volume pressure on our products.

Measures: We minimize this risk by adjusting our production capacity and by ensuring plant utilization through volume control and the intense cultivation of growth markets. It remains our goal to increase the share of cyclically resilient product lines in our portfolio and to rank among the global leaders there.

Evaluation and Risk Assessment: We expect the risk of overcapacity to remain basically unchanged for our products in 2020. At WACKER POLYMERS, we see overcapacity for dispersions and dispersible polymer powders in Asia. Despite this, we expect plant utilization to be high. In silicones, demand returned to normal in the reporting year after the strong rise of 2018. For 2020, WACKER SILICONES expects supply and demand to be balanced, with plant utilization remaining high as a result. At the same time, we anticipate lower average prices for standard silicones and certain specialties.

Generally, we consider it possible that specific areas of our chemical business will face overcapacity and resultant price pressure. We have already factored this possibility into our planning and forecasts. Any effects that go beyond this would have a medium impact on Group earnings.

Scenario 2: Overcapacity and very low prices for solar-grade polysilicon; difficult market conditions due to a rollback of government incentive programs; and the tight financial situation of many customers.

Impact on WACKER: Volume risks arise if the photovoltaic market is negatively affected by excessive and hurried cuts to government solar incentives or by limitations on new PV capacity. As for overcapacity, it may pressure margins through intense price competition. Both factors could lower sales and earnings.

Measures: We counter this risk by continuously improving our cost positions and by optimizing our product and customer portfolio in line with market developments, for example by expanding our market share for semiconductor-grade polysilicon. We respond to customers' liquidity problems by demanding collateral.

Evaluation and Risk Assessment: In all probability, the consolidation process in the solar industry will continue in 2020. As long as this trend persists and global production capacities exceed market demand, polysilicon prices are likely to remain volatile and under pressure. Such a trend has been factored into our planning and forecasts. Should demand for solar-grade polysilicon clearly exceed supply, this would presumably lift WACKER POLYSILICON's earnings. Conversely, a slump in demand for WACKER's solar-grade polysilicon would probably have a high impact on earnings in this business. In our view, the risk of prices falling is possible.

Procurement-Market Risks

Scenario: Higher raw-material and energy prices; bottlenecks in the supply of certain raw materials; risks of tariffs.

Impact on WACKER: Earnings dampened by higher raw-material and energy prices. Any supply bottlenecks could lead to longer customer delivery times and volume losses.

Measures: For strategic raw materials and energy, we prepare systematic annual procurement plans, which include an evaluation of the procurement risk. For any procurement risk that is classed as relevant, we take appropriate countermeasures where possible. Such countermeasures include: long-term supply contracts with partners; structured procurement policies for multiple suppliers under contracts of differing lengths; a wider supplier base; a higher level of safety stocks. We reduce our dependence on external suppliers by means of partial backward integration, for example in producing silicon metal and vinyl acetate.

Evaluation and Risk Assessment: WACKER's good position in energy and raw-material procurement enables us to manage risks effectively during economic upturns and downturns. If the world economy were to weaken significantly, our purchasing terms for key raw materials would allow us to adjust contractual volumes flexibly and – wherever possible – to benefit from price decreases through appropriate pricing models. Should global growth become unexpectedly strong, our volume guarantees are so extensive that we do not see any major risks to raw-material security. Prices can rise markedly in such situations. But experience has shown that we then have opportunities to compensate, at least partially, for additional costs by increasing the selling prices of our own

products. Additionally, purchasing prices for certain raw materials might be affected by punitive tariffs. Such import tariffs exist, for example, for silicon metal exported from China to Europe and the USA.

Under current German law, energy-intensive companies are partially exempt from paying various levies and surcharges. WACKER, too, benefits from these rules. Any restriction on the exemption rules would significantly reduce the competitiveness of specific business activities. In general, energy price trends (wholesale prices, infrastructure costs and ancillary costs) will remain heavily dependent on how German and European policymakers organize the energy transition.

On balance, we anticipate slightly lower raw-material prices for 2020, given the slowdown in economic momentum. But we expect electricity costs to stay at a high level. Such a scenario has been factored into our planning. Any possible price rises beyond this would probably have a medium impact on Group earnings.

Investment Risks

Scenario: Bad investments, higher-than-expected investment costs, postponed plant start-ups, deterioration of original market projections, and taking on risks from investments in joint ventures and associates.

Impact on WACKER: Bad investments incur costs for idle capacity and impair assets and equity investments. The possible effect on earnings could be substantial. Higher investment costs mean higher cash outflows and will lead to higher expenses for depreciation/amortization and impairments in our operating result. Postponed start-ups expose us to the risk of being unable to fulfill supply contracts and of posting lower sales and earnings. Should Siltronic AG's market capitalization fall substantially, WACKER might have to recognize a corresponding impairment on the carrying amount of its equity-accounted investment and this could negatively affect WACKER's earnings.

Measures: WACKER has numerous measures in place to counter investment risks. Investment projects are subject to a risk management process and their planning is thoroughly checked for completeness and plausibility. Economic feasibility is assessed using comparative studies that look at other plant projects, including those of competitors. Major capital expenditure is approved in stages only. Stringent project-budget management helps minimize or prevent delays.

Evaluation and Risk Assessment: Our capital expenditures will be slightly lower in 2020. Higher-than-expected investment spending is a risk that is currently considered to be low. Even if this risk did materialize, the impact on our earnings, net assets and financial position would probably be low. Due to our expectations for solar-sector market trends, we recognized an impairment charge of around €760 million on the carrying amount of our production facilities for hyperpure polysilicon in the 2019 financial statements. We consider the risk of further impairments in 2020 to be unlikely. Similarly, we currently view the risk of a negative trend in Siltronic AG's market capitalization to be unlikely. Were this risk to materialize, it would probably have a medium impact on our earnings, net assets and financial position.

Production and Environmental Risks

Scenario: Risks relating to the production, storage, filling and transport of raw materials, products and waste.

Impact on WACKER: Personal injury; property damage and environmental impairment; production downtimes and operational interruptions; and the obligation to pay damages.

Measures: WACKER coordinates its processes through its integrated management system (IMS). This system regulates workflows and responsibilities, attaching equal importance to productivity, quality, the environment, and health and safety. The IMS is based on statutory regulations, and on national and international standards, such as Responsible Care® and the UN Global Compact, which go far beyond legally prescribed standards. We focus on securing the highest possible level of operational safety at our production sites by monitoring maintenance extensively and by performing regular plant inspections. We conduct thorough safety and risk analyses, from the design stage through to commissioning, to ensure the safety of our plants. We regularly hold seminars on plant and workplace safety and explosion protection. Every WACKER site has an emergency response plan in place to regulate cooperation between internal and external emergency response teams, and with the authorities. We are insured against loss events at our plants and the potential consequences of such events. Our insurance cover is in line with customary chemical-industry standards. When we work with logistics providers, we ensure that shipments of hazardous goods are always checked prior to loading. Any deficiencies are systematically recorded and tracked.

Evaluation and Risk Assessment: Experience has shown that risks stemming from the production, storage, filling and transport of raw materials, products and waste can never be completely ruled out. Although there is a general possibility that such risks will occur, we currently consider a serious loss event to be unlikely. Should such an event occur, though, it could have a medium impact on WACKER's earnings.

Financial Risks

WACKER's ongoing operations and financing expose it to financial risks. These include credit, market-price, financing and liquidity risks. The Notes to the Consolidated Financial Statements provide extensive information about risk hedging with derivative financial instruments.

» See further details starting on page 111 of the Notes section.

B.50 Controlling Financial Risks

Risk	Corporate Department Responsible
Credit risks	Corporate Finance and Insurance, Corporate Accounting and Tax
Currency-exchange and interest-rate risks	Corporate Finance and Insurance
Liquidity risk	Corporate Finance and Insurance

regard to bank failures to be low, given our approach to counterparty risk. If bank failures were to occur unexpectedly, their impact on WACKER's earnings would probably be low.

Currency-Exchange and Interest-Rate Risks

Scenario: Fluctuations in exchange rates and interest rates.

Impact on WACKER: Effect on earnings, liquidity, and financial assets and liabilities.

Measures: Currency risks essentially arise from exchange-rate fluctuations for receivables, liabilities, cash and cash equivalents, and financial liabilities not held in euros. The currency risk with respect to the us dollar is of particular importance. WACKER hedges any net exposure above a certain level by using derivative financial instruments. Foreign exchange hedging is carried out mainly for the us dollar. We also counter exchange-rate risks through production sites that are not in the eurozone.

Interest-rate risks arise due to changes in market rates. Such changes affect future interest payments for variable-rate loans and investments. Once an exposure has been identified, interest-rate hedging is performed.

The use of derivative financial instruments requires an underlying operating transaction and is governed by internal regulations.

Evaluation and Risk Assessment: We hedge part of our us dollar business. Possible gains or losses from exchange-rate fluctuations are partially cushioned by hedges. From today's perspective, we consider it possible that exchange-rate and interest-rate changes in 2020 will differ substantially from our planning assumptions. We believe that this would have a medium impact on Group earnings.

Liquidity Risk

Scenario: Lack of funds for payments and tougher access to credit markets.

Impact on WACKER: Higher financing costs and impact on further investment projects.

Measures: Liquidity risk is managed centrally at WACKER. Our Corporate Finance and Insurance department employs efficient systems for both cash management and rolling liquidity planning. To counter financing risks, WACKER holds adequate, contractually agreed long-term lines of credit, and has set aside sufficient liquidity. We invest liquid funds

Credit Risk

Scenario: Customers or business partners fail to meet their payment obligations.

Impact on WACKER: Losses on trade receivables, and failure of banks to fulfill their obligations to WACKER.

Measures: We use a variety of instruments to reduce the risk of any loss on receivables. Depending on the nature of the product or service provided and the amount involved, we may demand collateral. Our preventive measures range from obtaining references and performing credit checks to evaluating payment histories. We limit default risks by means of credit insurance, advance payments and bank guarantees. We prevent counterparty risk with respect to banks and contractual partners by carefully selecting these partners. As a rule, we transact cash investments and derivative dealings with banks whose ratings are above a certain minimum.

Evaluation and Risk Assessment: We consider it unlikely that credit risks stemming from customer business will materialize. We consider our risk concentration with

only in issuers or banks that have a solid investment-grade credit rating. Cash pooling means liquid funds are passed on internally within the Group as required.

Evaluation and Risk Assessment: WACKER's liquidity totaled €545.2 million as of the reporting date. At the same time, there were unused lines of credit with terms of over one year totaling €600 million. We consider the occurrence of financing and liquidity risks to be unlikely. At the moment, we see no risks relating to financial-covenant infringements. If financial or liquidity bottlenecks did occur, their impact on Group earnings would be low. If unused lines of credit were tapped, net financial debt would rise.

Pensions

Scenario: Higher life expectancy of those entitled to a pension; pay and pension adjustments; falling discount factors; significant changes in the composition of invested fund assets and capital-market interest rates (low-rate environment).

Impact on WACKER: A rise in pension obligations, a decline in fund assets and a possible injection of financial resources into the pension fund or into the plan assets will affect the financial position and earnings of the Group. Further factors with a substantial impact on WACKER's equity and earnings are the higher life expectancy of pension-fund beneficiaries, adjustments to pay and pensions, and the discount factor (used to calculate the net present value of a final capital amount).

Measures: A large portion of WACKER's pension commitments are covered by the Wacker Chemie VVaG pension fund, by other pension-related funds and special-purpose assets, and by insurance plans. The investment portfolio is diversified to ensure a sufficient rate of return and to limit investment risks. The pension fund optimizes all asset items so that it attains the required return within specified risk limits. As one of the sponsoring entities, WACKER makes payments to the fund (when necessary), thereby ensuring sufficient coverage for pension obligations. In 2019, WACKER made an additional, special payment of €70.7 million to the pension fund. We periodically adjust the calculation parameters (e.g. life expectancy) for the other defined-benefit pension commitments.

Evaluation and Risk Assessment: Employee beneficiaries of the pension fund are steadily getting older and capital-market interest rates have been extremely low in recent years. The rate of return will probably be insufficient to fulfill pension obligations in the long term. Our contribution rate remained unchanged in the reporting year. It is possible that, in the future, more special payments to the fund will be necessary, that pension expenses and pension payments will rise further, and that higher provisions for pensions will weigh on the balance sheet. In the medium term, this would have a high impact on WACKER's earnings, net assets and financial position.

» See further details starting on page 136 of the Notes section.

Legal Risks

Scenario: Diverse legal risks related to tax, trademarks, patents, competition, antitrust proceedings, the environment, labor and contracts could arise from our international business.

Impact on WACKER: Drawn-out legal disputes, which could be detrimental to our company's operations, image and reputation, and which could be costly.

Measures: We limit legal risks by means of centralized contract management and reviews by our Legal department. Where necessary, we also have recourse to external legal experts.

Our Intellectual Property department protects and monitors patents, trademarks and licenses. Before initiating R&D projects, we conduct searches to determine whether existing third-party patents and intellectual property rights could obstruct these projects.

We use compliance programs to limit risks arising from possible legal infringements. WACKER's Code of Conduct defines and stipulates binding rules of behavior for all employees. WACKER enhances awareness of these issues with training programs.

Evaluation and Risk Assessment: Due to the varied nature of our business activities, it is always conceivable that legal risks could arise. We currently do not foresee any legal disputes, patent infringements or other legal risks that could significantly influence our business, and consider the probability of such risks materializing to be fundamentally unlikely. Should such an individual case occur, we would expect its impact on WACKER's earnings to be low.

Regulatory Risks

Energy Transition in Germany

Scenario: Germany's energy transition policy to achieve the CO₂-reduction targets set for 2030–2050 creates a regulatory environment that is likely to involve repeated legislative amendments, especially in the electricity sector (the German Renewable Energy Act, including relief for energy-intensive companies and self-generated electricity; German regulations governing grid charges for electricity and gas; EU laws on state aid; the EU Energy-Efficiency Directive; national and European emissions trading systems; integrated energy; the hydrogen economy).

Impact on WACKER: Increased energy-cost burden due to higher government-regulated charges and levies, unless energy-intensive industries are exempted to the same extent as before.

Measures: We continually monitor regulatory activity in Germany and in the EU. Whenever we anticipate changes in the current legal situation, we try to introduce our viewpoint into legislative procedures through discussions with policymakers and by participating in the work of trade associations. We also take advantage of market opportunities arising from regulatory changes (e.g. industrial demand-response management).

Evaluation and Risk Assessment: Changes in grid-fee exemption and in the calculation basis for grid levies meant that WACKER's level of relief from grid charges in 2018 and 2019 was already lower than in previous years. We consider it possible that 2020 will see further amendments to legal provisions on energy supply. The impact of such amendments on WACKER's earnings would probably be medium in the current year, but could increase substantially in subsequent years. In particular, amendments to the EU emissions trading system for phase 4 (which starts in 2021) will be set down in detail in 2020 and show their effect from 2021 onward.

Polysilicon Trade Restrictions

Scenario: Anti-dumping proceeding completed by MOFCOM (Chinese Ministry of Commerce) against polysilicon imports from the USA. On January 20, 2020, MOFCOM decided (following an expiry review) to extend the existing anti-dumping and anti-subsidy tariffs on us-made polysilicon for another five years.

Impact on WACKER: Negative impact of anti-dumping and anti-subsidy tariffs on earnings, net assets and financial position; influence on sales volumes; impact on long-term customer relations.

Measures: Despite the us-China trade conflict, we are holding numerous talks with policymakers in both countries to try and mitigate or eliminate punitive solar-sector tariffs (us tariffs on Chinese solar modules and cells, and Chinese tariffs on polysilicon from the USA). In doing so, our aim is to reduce or end Chinese anti-dumping and anti-subsidy tariffs and other punitive tariffs on WACKER's us-made polysilicon. We also have the option under Chinese anti-dumping law to apply to have the tariffs reviewed individually and, if necessary, have separate tariffs set. This is because WACKER did not, in fact, import any polysilicon from the USA into China during the investigation period of the anti-dumping proceedings. In addition, we have already qualified polysilicon made at our Charleston site with semiconductor customers and will complete further qualifications for semiconductor customers in 2020.

Evaluation and Risk Assessment: The USA and China signed phase 1 of a trade agreement on January 15, 2020. Under the agreement, China commits itself to purchase at least us\$250 billion worth of us-made goods in 2020 and 2021. This explicitly includes solar-grade polysilicon. At present, we cannot assess if, and to what degree, this will have a positive impact on our sales of us-made polysilicon, since it is unclear exactly how China will implement the agreement. WACKER will not be able to export its Charleston-made polysilicon from the USA to China at competitive terms, at least until the above-mentioned tariffs have been lifted. Given the escalating trade disputes worldwide, we consider it possible that WACKER's polysilicon business could be affected by further trade barriers and punitive tariffs. The potential impact on our 2020 earnings would then probably be high.

New Regulations for Production Processes and Products

Scenario: Due to new legislation, the production and use of chemical substances is regulated more strictly. New regulations make it necessary to modify our production processes or reformulate our products. They also impose more extensive information requirements on us and, in some cases, on our customers as well.

Impact on WACKER: Additional investments in production facilities, conversion costs, and revenue losses in individual application fields.

Measures: WACKER continually monitors the regulatory environment surrounding its products and production processes so that it can react promptly to impending changes. We are continuously optimizing our production processes. Any other necessary measures will be aligned with the changed regulatory environment in each specific situation.

Evaluation and Risk Assessment: It is always possible that new legal provisions necessitate modifications to our product portfolio or production processes. We consider it likely that new legal provisions will require additional investment in our production facilities or changes to our product portfolio. Should such changes occur, their short-term impact on WACKER's earnings would probably be low. In the medium term, though, they could have a medium-to-high impact.

IT Risks

Scenario: Attacks, system errors and unauthorized access to our IT systems and our production plants and networks, resulting in a threat to data security.

Impact on WACKER: Negative impact on the company's earnings, net assets and financial position, and on its production processes and workflows; loss of know-how.

Measures: We continually monitor our use of information technology and do everything we can to ensure that computer-assisted business processes function reliably. Our IT-security and risk-management specialists are responsible for handling hazards in a cost-efficient way. Their work is based on ISO 27001. We use risk analyses to define the requirements for our central systems with regard to the availability, confidentiality and integrity of data. We anchor these requirements in service level agreements (SLAs) and continually monitor compliance with those agreements. The deciding factor in configuring our systems for maximum availability is an associated backup and recovery procedure. We have taken appropriate precautions to cover emergency situations (business continuity management).

We minimize project-related IT risks with the help of a uniform method of project and quality management. It ensures that changes are integrated into our system landscape in a controlled manner.

During the risk management process, we log and evaluate any operations-related risks that arise and initiate countermeasures. In 2019, Corporate Auditing analyzed the risk management process and confirmed the accuracy and completeness of processes and structures used at IT and for digitalization. We adopt state-of-the-art hardware and software solutions to counter network downtime, data loss, data manipulation and unauthorized access to our network. Our user-authorization systems are based on the need-to-know principle. We review them regularly and assess any new concepts that reflect advances in digitalization. In order to protect our IT systems against malware, we deploy efficient security software, which we continuously update. We have set up an international security team, which addresses problems involving the confidentiality, integrity and availability of data and systems by introducing organizational and technical measures and by initiating awareness campaigns and training courses. Information events and training on IT security ensure that our employees have the necessary skills to heighten information security at the company. In addition, we regularly conduct comprehensive penetration tests and audits at domestic and international sites.

Evaluation and Risk Assessment: There are ever more attempts to disrupt and attack IT systems and networks. It cannot be ruled out entirely that such attacks could succeed in certain cases. A long-term failure of IT systems or a major loss of data could considerably impair WACKER's operations. Thanks to our precautionary measures, we consider the occurrence of such events to be unlikely. However, if any of our IT systems faced downtime, a service disruption or a hacker attack that affected a significant number of users or lasted for a substantial period, the impact on WACKER's earnings would be of medium scale.

Personnel-Related Risks

Scenario: Demographic change, lack of qualified technical and managerial employees, and problems in filling executive positions.

Impact on WACKER: A lack of technical and managerial employees could impede our continued growth and cause us to lose our technological edge.

Measures: We limit these risks through our personnel policies. In particular, we have a talent management process in place, which we use to draw up development plans for our employees. In addition, we offer a wide variety of training programs, good social benefits and performance-oriented compensation. We also offer our employees in Germany a wide range of working-time models and arrangements to better balance career demands with the different phases of their lives.

WACKER has a detailed, groupwide succession planning process in place for all key positions in the company, including all positions held by senior executives (OFKs). In its succession planning, WACKER distinguishes between short-term needs (up to two years) and medium-term needs (two to four years). In addition, WACKER has appointed deputies for senior executives in the event of a lengthy absence or illness.

Evaluation and Risk Assessment: Demographic change will increase the risk of not being able to find sufficiently qualified personnel for technical and managerial positions in the medium to long term. We consider it unlikely that risks to our personnel needs will arise in 2020. Should these risks materialize, the impact on Group earnings would probably be low.

External Risks

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Scenario: Pandemic, natural disaster, war or civil war.

Impact on WACKER: Impairment of our company’s capacity to act; supply bottlenecks; production outages; supply-chain disruptions; loss of trade receivables; impact on sales and earnings.

Measures: Our management entities and our sites have prepared and communicated plans and measures to minimize the effects of a pandemic on the health of our employees and on our business processes. Our pandemic-preparedness plan ensures a uniform, coordinated approach. The financial impact of damage to our production plants due to natural disasters is partly covered by insurance. As WACKER has production sites on various continents, it can always ensure a certain degree of manufacturing and delivery capability even if individual plants fail.

Evaluation and Risk Assessment: Risks from pandemics, natural disasters, and acts of war or civil war can never be ruled out entirely. At present, it is not possible to

predict how the coronavirus, which first appeared in China, will impact economic trends and global supply chains, nor whether a catch-up effect will arise and to what degree. Since the end of February, the coronavirus has been spreading around the world. Aside from Japan and South Korea, it is increasingly affecting a number of European countries. Capital markets have already seen share prices decline significantly as a result. If the current situation evolves into a longer-lasting pandemic, the world economy could face markedly slower growth and even a recession. If the authorities impose health quarantines or restrict the movement of people and goods, there could be raw-material bottlenecks, production outages and supply-chain disruptions. The situation is changing fast. So, we cannot reliably estimate the outbreak’s future effects at the moment. Currently, though, we consider it likely that WACKER could be affected by such risks. Our preparedness plan and our internationally distributed production sites and sales offices help limit the impact of local or regional damage on our business processes. However, we anticipate that the spread of the coronavirus could have a high impact on WACKER’s earnings trend.

Opportunities Report

Opportunity Management System

WACKER’s opportunity management system remained unchanged from the previous year. It is both a divisional and Group-level instrument. We identify operational opportunities and leverage them in our business divisions, as they have the detailed product and market expertise required for these tasks. We continuously use market observation and analysis tools to obtain, for example, a well-structured evaluation of industrial, market and competitor data. In addition, we conduct customer interviews to evaluate future opportunities. The monitoring process – how WACKER seizes opportunities – is based on key indicators (such as rolling forecasts and current-status reporting).

B.51 Opportunity Management System



Strategic opportunities of overriding importance – such as strategy adjustments, potential acquisitions, collaborations and partnerships – are handled at the Executive Board level. Such opportunities are incorporated into WACKER’s annual strategy-development and planning process, with current issues discussed at regular Executive Board meetings. As a general rule, we elaborate different scenarios and risk-opportunity profiles for these issues before making decisions.

WACKER has identified a whole range of opportunities for advancing the Group’s success over the next few years.

Overall Economic Opportunities

In addition to the global GDP growth projected for 2020, WACKER sees good opportunities to again outpace global chemical production, especially in young markets and sales regions. The strongest momentum, in our view, will continue to come from China, India and Southeast Asia. We are constantly expanding our presence in these markets to seize the opportunities there. Our technical competence centers and the WACKER ACADEMY are pivotal in achieving WACKER’s high standard of service and customer proximity.

B.52 Overview of Business Opportunities

Overall economic opportunities

Growth in Asia and other emerging markets

Sector-specific opportunities

Extensive product portfolio for future global trends

Urbanization, resource and energy efficiency, mobility and rising affluence

Strategic opportunities

Cost-effective expansion of capacities for downstream products

Positive cash flows via capital expenditures below depreciation/amortization

Extension of existing regional competence centers and establishment of new ones

Performance-related opportunities

Higher plant productivity

Sector-Specific Opportunities

Sector-specific opportunities primarily result from our broad product portfolio, which puts us in an excellent position to meet global megatrends. For example: the advance of urbanization, the trend toward conserving natural resources and energy, efforts to reduce CO₂ emissions, the world’s

increasing mobility needs, and the growing demand for products that enhance the quality of life. These trends remain as important as ever to our business.

Rising affluence in emerging-market economies, particularly in Asia, coupled with ever more stringent market and customer requirements, is fueling demand for products incorporating high-value silicones. To benefit from this development, WACKER intends to keep raising the percentage of high-value specialty silicones in its portfolio versus standard products. Areas of special focus range from the automotive and cosmetics sectors to personal care, health, medicine, electronics and clothing. Our aim is to meet this growth with innovative products and technologies.

We see good growth prospects for WACKER SILICONES in the electrical and electronics market, especially in automotive electronics. Growth is being spurred by digitalization, connectivity and electromobility. Electronic automotive assistance systems, for example, are becoming increasingly important and are indispensable for autonomous driving. Current studies predict that the number of largely autonomous vehicles among new registrations will reach some 76 million by 2035. Silicone gels and silicone encapsulants reliably protect the sensors and electronic components needed in such vehicles. During the next few years, electromobility is likely to gain further momentum. By 2025, the number of electric cars sold annually is expected to rise from 3 million to 25 million. Electric vehicles also require high-performance batteries. That is why we have developed new, thermally conductive silicones. They enable effective thermal management to ensure long-lasting, maintenance-free batteries.

At WACKER POLYMERS, growth potential stems from the rising affluence of emerging economies, from increasing urbanization, and from the trend toward conserving natural resources and cutting carbon dioxide emissions. The shift away from conventional building materials and construction methods to value-added systems will continue. A key aspect here is the use of dispersible polymer powders for modifying cement. The addition of these powders enables mortar mixtures not only to be processed more easily and applied more thinly, but also to have substantially improved properties. At the moment, unmodified dry-mix mortars account for some 70 percent of the total used in the building sector. In many regions, construction experts have only just started to appreciate the benefits of polymer-modified dry-mix mortars. WACKER POLYMERS also sees growth potential in environmentally friendly water-based paints and coatings.

WACKER BIOSOLUTIONS expects major growth opportunities from bioengineered products. A special focus is on the production of pharmaceutical proteins. Through its Amsterdam site, acquired in 2018, the division has increased its capacity in this field markedly. At the same time, the site's expertise in live microbial products is a valuable addition to our technology portfolio. In cyclodextrins, we are developing new applications (e.g. for egg-free baked goods and low-fat desserts). We also expect to see growth in cysteine and other fermentation-generated food products, such as vegetarian-grade meat flavors. Our large-scale fermentation plant in León (Spain) will enable us to meet this rising demand over the long term.

Energy remains a key megatrend, with the photovoltaic industry at the forefront. The competitiveness of solar power relative to other energy sources continues to spur demand for photovoltaic systems. Across the globe, the use of renewable energy is increasing. China, India and the USA are where we anticipate most new capacity will be added. We also see further growth potential in the increasing global trend toward highly efficient monocrystalline solar cells. As a quality leader in the production of hyperpure polysilicon, WACKER POLYSILICON will benefit from this trend.

Strategic Opportunities

To seize growth opportunities in our divisions, we remain focused not only on satisfying rising customer demand, mainly through the cost-effective expansion of existing plants, but also on strengthening our capacity for downstream products. The capital expenditure for this in 2020 will be below the level of depreciation/amortization. Our priority remains expanding our capacity for silicone and polymer products. At Burghausen (Germany) and Adrian (USA), we are adding capacity for specialty silicones, liquid silicone rubber, hydrophobic silica and silicone emulsions. At Ulsan (South Korea), we are building a new plant for dispersions that will mainly be used to produce dispersible polymer powders for the construction sector.

Further strategic opportunities will evolve from our Shape the Future project, which is examining our processes and organizational structure to make WACKER leaner, faster and more flexible. The project supports our strategy for long-term sales and earnings growth, and will help us make better use of the potential of our technological and product portfolio. Our goal is to position WACKER effectively for

the future so that we are successful in the short and long term, amid increasing competition and further economic fluctuations.

Performance-Related Opportunities

WACKER has a number of opportunities for improving its cost structures, processes and productivity. At WACKER POLYSILICON, we are continuing to implement our program to cut production costs. At our chemical divisions, we are tapping further cost-cutting potential with our productivity and efficiency program – the Wacker Operating System. Our various cost-cutting levers include: specific costs for auxiliaries; productivity advances on the manufacturing side; and broadening our choice of suppliers to secure more attractive purchasing terms.

We also expect performance-related opportunities to result from our “Zukunft gestalten” project. With a leaner and more efficient organizational structure, we expect significant savings in personnel expenses and material costs.

Executive Board Evaluation of Overall Risk

The Executive Board evaluates the overall risk situation on the basis of information from the risk management system. The system compiles all risks identified by our divisions, corporate departments and regional entities. It is regularly reviewed by the Executive Board and discussed in Audit Committee meetings.

As of the publication date of this report, the Executive Board does not see any individual or aggregate risk that could seriously endanger WACKER's future. The political developments described above have heightened overall economic risks versus the previous year, and the risks in our sales markets are also somewhat higher. We thus believe the overall risk level will also be slightly higher than in 2019. But, thanks to our extensive product portfolio and firm regional footing, we see good opportunities to expand our leading market positions and achieve further growth. We remain confident that WACKER is strategically and financially so well placed that we can take advantage of any opportunities that arise.

Outlook

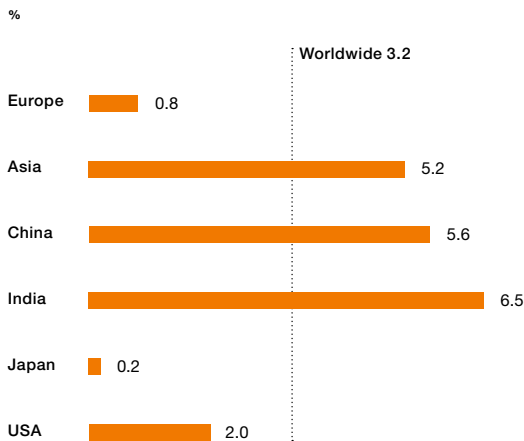
Underlying Economic Conditions

For 2020, economists expect global economic growth to be at last year's level or below it. Downside risks stem not only from an escalation in us-China trade tensions, but also from mounting geopolitical concerns. On top of this comes uncertainty due to the coronavirus. Both the IMF and OECD expect the virus to slow the world economy this year.

The OECD forecasts a prolonged period of weaker global growth. It considers any recovery in the eurozone to be highly unlikely in the next two years.

Our scenario, based on the latest economic forecasts, is for the world economy to continue expanding in 2020 and 2021.

B.53 GDP Trends in 2020



Sources – worldwide: IMF; Europe: OECD; Asia: ADB; China: IMF; India: ADB; Japan: OECD; USA: IMF

Sector-Specific Conditions

In the sectors relevant to our business, we expect economic trends to be largely positive in 2020, though this depends on the world economy.

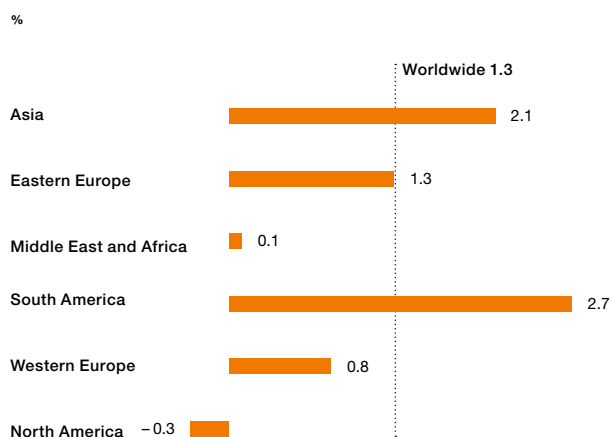
Chemical Industry Expected to Post Slight Growth in 2020

After a difficult year for Germany's chemical and pharmaceutical industry, the German Chemical Industry Association (vci) anticipates that production will increase by a slight 0.5 percent in 2020, fueled mainly by growth in the pharmaceutical sector (+2.0 percent). According to the vci, the industry's total sales should climb by 0.5 percent to about €194 billion amid stagnating prices.

WACKER's chemical divisions see major growth opportunities in the BRICs countries and other emerging economies. Rising affluence in emerging economies will continue to lift WACKER's sales in countries such as China and India, as well as across Southeast Asia. WACKER's portfolio has many high-value products that appeal to new customer groups, spurring demand for WACKER technologies from industrial customers. Moreover, part of our product portfolio is used in highly automated manufacturing processes. In these sectors, WACKER is also generating above-average growth in advanced economies.

Construction Industry Remains on Growth Trajectory

According to market research institute B+L Marktdaten GmbH, the construction industry will continue expanding over the next few years. On average, global construction volume is expected to rise by about 1.3 percent annually through 2022, with Asia and South America as the main growth drivers. B+L estimates that the European construction industry, too, remains on track for further growth, albeit at a lower rate. In North America, on the other hand, the construction market faces a slight contraction, according to projections.

B.54 Construction-Industry Growth Rates by Region, 2020–2022


Source: B+L Marktdaten GmbH, December 2019

Renovation, energy-efficiency and sustainability projects will continue to offer WACKER good growth opportunities in the coming years. We expect WACKER POLYMERS' construction sales to grow in 2020 in every region, especially Asia. We consider the main growth drivers to be low-emission interior paints and dry-mix mortars. At WACKER SILICONES, the percentage of value-added specialty products should grow further in a large number of segments. Prospects are good for hybrid polymers, which are used to formulate high-performance adhesives and sealants. The same applies to silane-based cement additives, which not only offer energy-savings in production and an improved shelf life, but also enhance the quality and durability of concrete.

Moderate Growth Expected in the Electrical and Electronics Sector

The German Electrical and Electronic Manufacturers' Association (ZVEI) expects global market volumes in the sector to expand by 3 percent in 2020. According to the ZVEI, emerging markets and Asia will deliver the main impetus for growth. But the ZVEI also expects to see slight increases in Europe and the Americas.

B.55 WACKER's Key Customer Sectors

Sectors	Trend in 2019	Trend in 2020
Chemicals	Slight growth	Slight growth
Construction	Growth	Growth
Energy and electrical	Growth	Growth
Photovoltaics	Growth	Growth amid intense competition

WACKER continues to see generally good growth prospects in the automotive industry, for example through the increasing use of driver-assistance systems, sensors and optical displays, and the growing importance of electromobility. Weakening demand for cars, however, may have a negative influence.

Further Increase in Installed Photovoltaic Capacity Likely in 2020

Economic conditions for photovoltaics (PV) will remain dynamic and challenging in 2020. The highly competitive situation necessitates greater efforts to achieve further significant cuts in production costs. At the same time, lower levelized costs are making PV more competitive relative to other energy sources. Solar energy is central to achieving global climate-protection targets, since it significantly reduces specific carbon-dioxide emissions compared with fossil fuels.

B.56 Photovoltaic-Market Trend in 2020

	Installation of New PV Capacity (MW)		
	2020		2019
	Lower Range	Upper Range	
Germany	3,500	4,500	4,000
Spain	3,500	4,500	4,700
Rest of Europe	14,000	17,000	13,000
USA	15,000	19,000	13,000
Japan	7,000	8,000	7,500
China	35,000	40,000	30,200
India	11,000	14,000	8,500
Other regions	46,000	48,000	39,100
Total	135,000	155,000	120,000

Sources: PV market in 2020: Solar Energy Industries Association (SEIA), RTS Corporation, Bridge to India, market studies, WACKER's own market research; PV market in 2019: Germany's Federal Network Agency, Commissariat Général au Développement Durable, SEIA, RTS Corporation, China National Energy Agency, Ministry of New and Renewable Energy, Bridge to India, market studies, WACKER's own market research

The PV market is expected to deliver further growth. China will remain the world's largest and most important market in 2020. Other markets likely to add large amounts of capacity include India, the USA, Europe and Japan. Growth potential

is also strong, for example, in Central and South America, Southeast Asia, the Middle East and Africa. Based on its own market surveys and those of third parties, WACKER expects newly installed PV capacity to be between 135 and 155 gigawatts (GW) in 2020.

The WACKER Group's Prospects

Based on our assumptions, we expect the global economy to grow in 2020. Most momentum will come from emerging markets in Asia, with stable growth expected in the USA. Growth rates will remain low in Europe.

Investment Spending and Production

As in 2019, our capital expenditures in 2020 will concentrate on production plants for intermediates and downstream products. At around €350 million, capital expenditures will be on par with last year and below the level of depreciation/amortization. WACKER SILICONES will be the focus of investments, accounting for around 50 percent. Spending there will concentrate on intermediate and downstream plants in Burghausen and Nünchritz (Germany). In the course of the year, WACKER POLYMERS will complete a dispersion reactor under construction in Ulsan (South Korea).

B.57 Facility Start-Ups in 2020

Location	Projects	Start-Up
Ulsan, South Korea	VAE dispersion reactor	2020
Burghausen, Germany	Gas turbine	2020

Future Products and Services

WACKER SILICONES is leveraging diverse applications in the construction, electronics, automotive and personal care industries. In the construction sector, there are new opportunities for silane-modified hybrid polymers, e.g. as sealants and adhesives, and in wear-resistant protective coatings for concrete floors. Plenty of potential is offered by our new, silane-based cement additives. They save energy during the production of cement, improve its storage stability, and increase the quality and durability of concrete. To improve concrete formulations, WACKER maintains special competence centers in China and India, both key growth regions. We are benefiting from rising

demand for specialty silanes in microelectronics and for silicone products in the consumer goods sector, with the latter products increasingly being manufactured using renewable raw materials. Thermally conductive silicone elastomers are becoming an indispensable material for electromobility, where their cooling properties make them an important thermal-management component of state-of-the-art battery cells. In the automotive, entertainment and medical industries, our new electroactive silicone laminates are supporting the development of innovative touchscreens.

WACKER POLYMERS is intensifying its activities in polymeric binders for sophisticated coating and construction applications. A significant trend here is growing customer demand for sustainable, environmentally compatible solutions. WACKER POLYMERS is actively seizing these market opportunities and developing corresponding product lines. For example, the division is able to offer a commercial-scale line of VAE (vinyl acetate-ethylene) copolymer dispersions incorporating renewable raw materials.

For WACKER BIOSOLUTIONS, the pharma and food markets currently offer growth potential. The pharma market is steadily shifting toward bioengineered medicines. Our acquisition of the Amsterdam production site means we have new capacity for continued growth as a contract development and manufacturing organization (CDMO). The division sees additional growth potential in biologics, vaccines and live microbial products – all areas in which the Amsterdam site is a certified producer. In the food market, we are supporting the “healthy eating” trend – for example, with the innovative approach of complexing the antioxidant curcumin with cyclodextrins to produce vegetable-based dietary supplements. In the vegan sector, our cyclodextrins offer a solution for egg-free baked goods.

In the coming years, demand for high-quality polysilicon will rise further. In particular, demand is growing constantly for monocrystalline cells, which are highly efficient and generate more electricity from the same amount of sunlight. WACKER occupies a strong position here. With our hyperpure polysilicon, we are ideally placed to supply the fast-growing segment for monocrystalline cells. In addition, we are increasing our share of high-quality polysilicon for semiconductors.

Research and Development

The Group's research and development work remains focused on key strategic projects. WACKER intends to spend 12 percent of its R&D budget on these projects in 2020 (2019: 10 percent). Our R&D work is prioritizing the highly promising fields of energy, electronics, automotive engineering, medical technology, consumer care, biotechnology and construction applications. One area of special emphasis is energy storage and renewable-energy generation.

Digitalization

WACKER's ongoing digitalization program is progressing with a wide range of individual projects. Spanning every company sector, the projects aim to make workflows and processes leaner and more efficient.

Employees

We expect employee numbers to decline in 2020. Reducing the headcount is part of the Shape the Future restructuring and efficiency program. The focus is on getting by with fewer jobs in indirect, functional departments.

Sustainability

WACKER's sustainability goals for the next few years are described in the Non-Financial Report. In 2020, the regional focus of WACKER's sustainability management activities will be on Asia, where we will examine environmental, health and safety (EHS) aspects at individual sites.

The new gas turbine installed in the combined heat and power (CHP) plant at the Burghausen site will help reduce carbon dioxide emissions substantially compared with the old turbine, while producing the same amount of electricity.

Outlook for 2020

WACKER's main planning assumptions relate to raw-material and energy costs, personnel expenses and exchange rates. For 2020, we anticipate a euro exchange rate of US\$ 1.15 (2019: 1.20). Average prices of our key raw materials should be marginally lower than last year. The cost of natural gas and electricity are slightly lower than last year. The majority of our raw-material and energy supplies are secured for 2020. The forecast does not include the one-off costs incurred to implement our Shape the Future program. At present, we cannot reliably assess the impact of the fast-spreading coronavirus.

Performance Indicators and Value-Based Management

WACKER's key performance indicators are the same as last year.

Group Sales to Benefit from Volume Growth in 2020

For 2020, WACKER anticipates higher volumes in its chemical divisions, with average prices lower on balance. In our polysilicon business, we expect sales to rise, driven by an improved product mix. On average over the year, we expect polysilicon prices to be slightly lower than last year. Overall, Group sales are projected to climb by a low-single-digit percentage.

Economic uncertainties may cause the actual performance of the WACKER Group and its divisions to diverge from our assumptions, either positively or negatively. We expect to return to a growth path in 2020, as long as there are no unforeseen slumps in WACKER's key regions and industries.

Outlook for Key Performance Indicators at the Group Level

From today's perspective, the key performance indicators will develop as follows at the Group level.

EBITDA margin and EBITDA: the EBITDA margin is expected to be somewhat lower than last year (2019: 15.9 percent). EBITDA will be around 20 percent lower than last year. The projected drop relates mainly to the insurance compensation of €112.5 million received in 2019 for damage incurred at our Charleston site (USA). Adjusted for this non-recurring effect, EBITDA is likely to decline by a mid-single-digit percentage versus last year. This Group guidance takes account of some of the economic uncertainty. We expect income from equity investments to be lower than last year. Group net income should rise substantially. The risk of a possible coronavirus pandemic is described in the Risk Management Report. Given the drastic developments since the end of February, we consider the risk of such an occurrence to be likely and its potential impact on WACKER's earnings and financial position to be high (>€100 million). In consequence, EBITDA could decline by a two-digit percentage versus last year.

ROCE: ROCE is likely to be substantially higher than last year (2019: -11.3 percent).

Net cash flow: we expect net cash flow for 2020 to be clearly positive and substantially higher than last year, buoyed mainly by lower working-capital usage.

B.58 Outlook for 2020

Key Financial Performance Indicators	Reported for 2019	Outlook 2020
EBITDA margin (%)	15.9	Somewhat lower than last year
EBITDA (€ million)	783.4	About 20% lower than last year
ROCE (%)	-11.3	Positive ROCE, substantially higher than last year
Net cash flow (€ million)	184.4	Clearly positive, substantially higher than last year
Supplementary Financial Performance Indicators		
Sales (€ million)	4,927.6	Low-single-digit percentage increase
Capital expenditures (€ million)	379.5	Around 350
Net financial debt (€ million)	713.7	Substantially lower than last year
Depreciation/amortization (€ million)	1,319.7	Around 425

Outlook for Supplementary Performance Indicators at the Group Level

Capital expenditures: in 2020, capital expenditures will amount to around €350 million, on par with last year and below the level of depreciation/amortization. At around €425 million, depreciation/amortization will contract significantly. Investment projects include the new dispersion reactor in Ulsan (South Korea), and intermediate and downstream plants in Burghausen and Nünchritz (Germany).

Net financial debt: given the positive cash flow, net financial debt will be substantially lower than last year (2019: €714 million).

Divisional Trends in Sales and EBITDA

At WACKER SILICONES, we expect sales for 2020 to climb by a low-single-digit percentage versus last year. Growth will be driven by higher volumes for specialty applications. Lower average product prices will have the opposite effect. We expect sales to rise in all regions. EBITDA should be on par with last year due to lower average prices. Raw-material and energy prices will be slightly lower than last year. We expect the EBITDA margin to be slightly lower.

At WACKER POLYMERS, our projection is for sales to grow by a low-single-digit percentage, supported by higher volumes in dispersions and dispersible polymer powders. In this division, too, we anticipate sales growth in all regions. With raw-material prices at last year's level, EBITDA should rise slightly thanks to productivity increases. We are forecasting a slight rise in the EBITDA margin.

We expect WACKER BIOSOLUTIONS to increase its sales by a high-single-digit percentage in 2020, with the main impetus coming from biopharmaceuticals. Both EBITDA and the EBITDA margin should be substantially higher than last year.

In our polysilicon business, we assume that sales will rise slightly, up by a low-single-digit percentage. Growth will be driven by an improved product mix as we shift toward high-value products. Cost savings will offset low average polysilicon prices. Energy prices are likely to decline marginally versus last year. When adjusted for the non-recurring effect of the insurance compensation received in 2019, EBITDA should be on par with last year.

Future Dividends

Our goal is to distribute about half of Group net income to shareholders, provided that the business situation permits this and the decision-making bodies agree.

Financing

The main features of our financing policy remain in place. We are confident that we have a strong financial profile with a sound capital structure and healthy maturities for our debt. As of December 31, 2019, WACKER had a total of €600 million in unused lines of credit with residual maturities of over one year.

Executive Board Statement on Overall Business Expectations

The risks to the economy will continue in 2020. According to economic forecasts, global growth will be on the same level as last year. At present, it is unclear how the partial agreement reached in the us-China trade conflict will affect the global economic trend. But the consensus is that there will not be a deep recession. Currently, it is not possible to reliably predict how the fast-spreading coronavirus, which first appeared in China, will impact global economic growth.

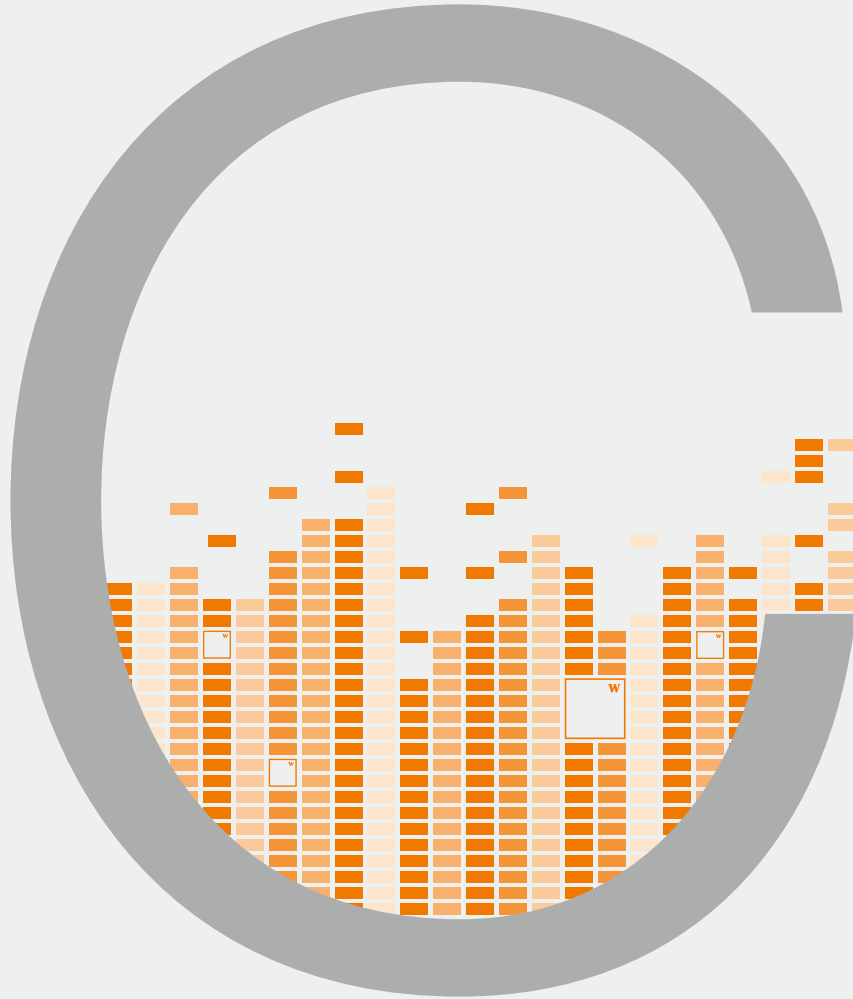
We are anticipating another difficult year for our business. We expect sales to climb again by a low-single-digit percentage in 2020. Adjusted for the non-recurring effect of insurance compensation, EBITDA will decline by a mid-single-digit percentage versus last year. This Group guidance takes account of some of the economic uncertainty. Raw-material costs are expected to be at last year's level, with energy costs down slightly. Due to the drastic developments since the end of February, we rate the risk of a coronavirus pandemic as likely, with a potentially high impact (>€100 million) on WACKER's earnings and financial position. In consequence, EBITDA could decline by a two-digit percentage versus last year.

At around €350 million, capital expenditures will be on par with last year. Depreciation/amortization will amount to around €425 million, substantially lower year than in 2019. We expect net cash flow to be clearly positive and markedly above last year's figure. Net financial debt will decline due to positive cash flow.

Excess capacity for polysilicon and persistently low average prices are impeding WACKER POLYSILICON's operating performance, despite our leading market and quality position. As regards the chemical divisions, we are confident that our excellent product portfolio will keep us on a growth trajectory and that our capital expenditures will meet market growth.

As of the preparation date of these financial statements, nothing had changed as regards our guidance.

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Consolidated Financial Statements

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c.1 **Statement of Income**

January 1 to December 31

€ million	Notes	2019	2018
Sales	01	4,927.6	4,978.8
Cost of goods sold	02	– 4,124.4	– 4,104.1
Gross profit from sales		803.2	874.7
Selling expenses		– 314.5	– 303.5
Research and development expenses		– 173.3	– 164.6
General administrative expenses		– 145.6	– 159.7
Other operating income	02	97.0	96.0
Other operating expenses	02	– 857.4	– 85.0
Operating result		– 590.6	257.9
Result from investments in joint ventures and associates	03	54.3	131.7
Other investment income	03	–	–
EBIT (earnings before interest and taxes)		– 536.3	389.6
Interest income	03	10.6	8.0
Interest expenses	03	– 20.3	– 22.1
Other financial result	03	– 45.2	– 51.1
Financial result		– 54.9	– 65.2
Income before income taxes		– 591.2	324.4
Income taxes	04	– 38.4	– 64.3
Net income for the year		– 629.6	260.1
Of which			
Attributable to Wacker Chemie AG shareholders		– 642.6	246.1
Attributable to non-controlling interests	12	13.0	14.0
Earnings per common share (€) (basic/diluted)	19	– 12.94	4.95

c.2 Statement of Comprehensive Income

January 1 to December 31

€ million	2019			2018		
	Before taxes	Deferred taxes	After taxes	Before taxes	Deferred taxes	After taxes
Net income for the year			− 629.6			260.1
Items not subsequently reclassified to the statement of income						
Remeasurement of defined benefit plans	− 542.3	140.6	− 401.7	−149.3	36.7	−112.6
Sum of items not reclassified to the statement of income	− 542.3	140.6	− 401.7	−149.3	36.7	−112.6
Of which result from investments accounted for using the equity method	− 40.1	−	− 40.1	−14.3	−0.9	−15.2
Items subsequently reclassified to the statement of income						
Difference from foreign currency translation adjustment	45.0	−	45.0	64.3	−	64.3
Of which recognized in profit or loss	−	−	−	−	−	−
Changes in fair value of securities – FVOCI	−	−	−	−	−	−
Impairments of securities – FVOCI	−	−	−	−	−	−
Changes in fair value of derivative financial instruments (cash flow hedge)	4.1	−1.3	2.8	−12.8	3.9	− 8.9
Of which recognized in profit or loss	14.4	− 4.1	10.3	0.5	−0.2	0.3
Effects of net investments in foreign operations	−	−	−	−	−	−
Of which recognized in profit or loss	−	−	−	−	−	−
Sum of items reclassified to the statement of income	49.1	−1.3	47.8	51.5	3.9	55.4
Of which result from investments accounted for using the equity method	11.3	− 0.9	10.4	− 3.3	2.1	−1.2
Income and expenses recognized in equity	− 493.2	139.3	− 353.9	− 97.8	40.6	− 57.2
Of which						
Attributable to Wacker Chemie AG shareholders	− 493.2	139.3	− 353.9	− 96.7	40.6	− 56.1
Attributable to non-controlling interests	−	−	−	−1.1	−	−1.1
Total income and expenses reported in the fiscal year			− 983.5			202.9
Of which						
Attributable to Wacker Chemie AG shareholders			− 996.5			190.0
Attributable to non-controlling interests			13.0			12.9

c.3 Statement of Financial Position

As of December 31

€ million	Notes	Dec. 31, 2019	Dec. 31, 2018
Assets			
Intangible assets	05	29.4	38.3
Property, plant and equipment	05	2,644.0	3,525.5
Right-of-use assets	06	119.8	—
Investment property	07	8.6	1.5
Investments in joint ventures and associates accounted for using the equity method	08	640.4	658.3
Securities	11	—	4.4
Other financial assets	10	58.8	109.3
Other receivables and assets	10	9.1	5.3
Deferred tax assets	04	632.9	520.9
Noncurrent assets		4,143.0	4,863.5
Inventories	09	979.8	1,010.7
Trade receivables	10	631.5	681.9
Other financial assets	10	79.9	30.1
Other receivables and assets	10	63.0	85.4
Income tax receivables	10	48.6	64.0
Securities and fixed-term deposits	11	109.4	42.0
Cash and cash equivalents	11	435.8	341.1
Current assets		2,348.0	2,255.2
Total assets		6,491.0	7,118.7
Equity and Liabilities			
Subscribed capital of Wacker Chemie AG		260.8	260.8
Capital reserves of Wacker Chemie AG		157.4	157.4
Treasury shares		— 45.1	— 45.1
Retained earnings		2,561.6	3,328.0
Other equity items		— 967.8	— 613.9
Equity attributable to Wacker Chemie AG shareholders		1,966.9	3,087.2
Non-controlling interests		62.1	58.3
Equity	12	2,029.0	3,145.5
Provisions for pensions	13	2,275.3	1,795.0
Other provisions	14	232.6	220.1
Financial liabilities	15	1,049.0	894.7
Other financial liabilities	16	0.1	0.4
Income tax liabilities	16	82.0	88.3
Contract liabilities	16	61.0	64.1
Other liabilities	16	0.5	—
Deferred tax liabilities	04	9.2	9.8
Noncurrent liabilities		3,709.7	3,072.4
Other provisions	14	17.1	36.0
Financial liabilities	15	209.9	102.5
Trade payables	16	355.0	470.6
Other financial liabilities	16	14.3	23.3
Income tax liabilities	16	13.1	21.9
Contract liabilities	16	59.1	86.8
Other liabilities	16	83.8	159.7
Current liabilities		752.3	900.8
Liabilities		4,462.0	3,973.2
Total equity and liabilities		6,491.0	7,118.7

c.4 Statement of Cash Flows

January 1 to December 31

€ million	Notes	2019	2018
Net income for the year		– 629.6	260.1
Depreciation/amortization and impairment losses/reversals of fixed assets		1,319.7	540.4
Result from disposal of fixed assets		5.9	3.7
Other non-cash expenses and income		45.2	66.2
Result from equity accounting		– 54.3	–131.7
Net interest income		9.7	14.1
Interest paid		–19.3	–20.3
Interest received		10.6	9.5
Income tax expense		38.4	64.3
Taxes paid		–10.5	–152.0
Dividends received		48.8	23.1
Change in inventories		– 9.1	–308.8
Change in trade receivables		52.0	–22.0
Change in non-financial assets		19.3	– 0.3
Change in financial assets		– 0.9	45.0
Change in provisions		– 30.9	13.5
Change in non-financial liabilities		–76.3	– 3.4
Change in financial liabilities		– 82.9	150.0
Change in contract liabilities		– 30.8	– 41.8
Cash flow from operating activities (gross cash flow)	21	605.0	509.6
Investments in intangible assets, property, plant and equipment, and investment property		– 415.1	– 408.8
Investments in financial assets		– 6.6	– 0.1
Proceeds from the disposal of fixed assets		1.1	6.5
Cash payments for acquisitions		–	–21.0
Cash flow from long-term investing activities before securities		– 420.6	– 423.4
Cash receipts from the disposal of securities and fixed-term deposits		26.0	587.8
Cash payments for the acquisition of securities and fixed-term deposits		– 88.9	–373.8
Cash flow from investing activities	21	– 483.5	– 209.4
Dividends paid		–124.2	–223.6
Dividends paid to non-controlling interests		– 9.2	– 4.7
Additions to financial liabilities		222.1	366.4
Repayment of financial liabilities		– 80.1	–374.3
Lease liabilities repaid		– 34.8	– 4.3
Cash flow from financing activities	21	– 26.2	– 240.5
Change due to exchange-rate fluctuations		– 0.6	– 5.5
Change in cash and cash equivalents	11	94.7	54.2
At the beginning of the year		341.1	286.9
At the end of the year		435.8	341.1

c.5 Statement of Changes in Equity

January 1 to December 31

€ million	Subscribed capital	Capital reserves	Treasury shares	Retained earnings	Other equity items	Total	Non-controlling interests	Total
Jan. 1, 2018, as reported	260.8	157.4	– 45.1	3,303.9	– 557.8	3,119.2	50.1	3,169.3
Effects of first-time application of new accounting standards	–	–	–	1.6	–	1.6	–	1.6
Jan. 1, 2018	260.8	157.4	– 45.1	3,305.5	– 557.8	3,120.8	50.1	3,170.9
Net income for the year	–	–	–	246.1	–	246.1	14.0	260.1
Income and expenses recognized in equity	–	–	–	–	– 56.1	– 56.1	– 1.1	– 57.2
Total comprehensive income	–	–	–	246.1	– 56.1	190.0	12.9	202.9
Dividends paid	–	–	–	– 223.6	–	– 223.6	– 4.7	– 228.3
Dec. 31, 2018	260.8	157.4	– 45.1	3,328.0	– 613.9	3,087.2	58.3	3,145.5
Jan. 1, 2019, as reported	260.8	157.4	– 45.1	3,328.0	– 613.9	3,087.2	58.3	3,145.5
Effects of first-time application of new accounting standards ¹	–	–	–	0.4	–	0.4	–	0.4
Jan. 1, 2019	260.8	157.4	– 45.1	3,328.4	– 613.9	3,087.6	58.3	3,145.9
Net income for the year	–	–	–	– 642.6	–	– 642.6	13.0	– 629.6
Income and expenses recognized in equity	–	–	–	–	– 353.9	– 353.9	–	– 353.9
Total comprehensive income	–	–	–	– 642.6	– 353.9	– 996.5	13.0	– 983.5
Dividends paid	–	–	–	– 124.2	–	– 124.2	– 9.2	– 133.4
Dec. 31, 2019	260.8	157.4	– 45.1	2,561.6	– 967.8	1,966.9	62.1	2,029.0

¹ IFRS 16 – Leases

c.6 Reconciliation of Other Equity Items

January 1 to December 31

€ million	Changes in fair value of securities – FVOCI	Impairments of securities – FVOCI	Difference from foreign currency translation adjustment	Changes in fair value of derivative financial instruments (cash flow hedge)	Remeasurement of defined benefit plans	Effects of net investments in foreign operations	Total
Attributable to Wacker Chemie AG shareholders							
Jan. 1, 2018	–	–	83.5	7.8	– 645.4	– 3.7	– 557.8
Changes recognized in equity	–	–	–	– 9.2	– 112.6	–	– 121.8
Reclassification to the statement of income	–	–	–	0.3	–	–	0.3
Changes in exchange rates	–	–	65.4	–	–	–	65.4
Dec. 31, 2018	–	–	148.9	– 1.1	– 758.0	– 3.7	– 613.9
Jan. 1, 2019	–	–	148.9	– 1.1	– 758.0	– 3.7	– 613.9
Changes recognized in equity	–	–	–	– 7.5	– 401.7	–	– 409.2
Reclassification to the statement of income	–	–	–	10.3	–	–	10.3
Changes in exchange rates	–	–	45.0	–	–	–	45.0
Dec. 31, 2019	–	–	193.9	1.7	– 1,159.7	– 3.7	– 967.8
Attributable to non-controlling interests							
Jan. 1, 2018	–	–	– 4.4	–	–	–	– 4.4
Changes in exchange rates	–	–	– 1.1	–	–	–	– 1.1
Dec. 31, 2018	–	–	– 5.5	–	–	–	– 5.5
Jan. 1, 2019	–	–	– 5.5	–	–	–	– 5.5
Changes in exchange rates	–	–	–	–	–	–	–
Dec. 31, 2019	–	–	– 5.5	–	–	–	– 5.5

C.7 Segment Information by Division

January 1 to December 31

€ million	Silicones	Polymers	Biosolutions	Polysilicon	Other	Consolidation	Group
2019							
External sales	2,452.8	1,294.2	243.0	780.0	157.6	—	4,927.6
Internal sales	0.2	20.9	—	—	—	–21.1	—
Total sales	2,453.0	1,315.1	243.0	780.0	157.6	–21.1	4,927.6
EBIT	375.3	153.7	14.0	–1,012.9	–66.7	0.3	–536.3
Depreciation/amortization and impairment losses/reversals	103.2	40.5	17.1	1,069.8	89.1	—	1,319.7
EBITDA	478.5	194.2	31.1	56.9	22.4	0.3	783.4
EBIT includes: result from investments in joint ventures and associates	3.2	—	—	—	51.1	—	54.3
Impairment of fixed assets	–4.8	—	—	–760.0	—	—	–764.8
Asset additions ¹	193.6	62.4	13.2	35.3	75.0	—	379.5
Additions to financial assets	—	—	—	—	6.6	—	6.6
Asset additions	193.6	62.4	13.2	35.3	81.6	—	386.1
Assets (Dec. 31)	1,766.1	681.9	216.8	1,293.2	2,533.2	–0.2	6,491.0
Liabilities (Dec. 31)	929.2	331.4	97.4	584.9	2,519.1	—	4,462.0
Net assets (Dec. 31)	836.9	350.5	119.4	708.3	14.1	–0.2	2,029.0
Investments in joint ventures and associates included in net assets (Dec. 31)	42.7	—	—	—	597.7	—	640.4
Research and development expenses	65.0	33.9	6.4	30.0	38.0	—	173.3
Employees (Dec. 31)	5,267	1,630	754	2,333	4,674	—	14,658
Employees (average)	5,293	1,623	737	2,441	4,657	—	14,751
2018							
External sales	2,499.5	1,258.2	227.0	823.5	170.6	—	4,978.8
Internal sales	0.1	24.0	—	—	—	–24.1	—
Total sales	2,499.6	1,282.2	227.0	823.5	170.6	–24.1	4,978.8
EBIT	536.7	108.0	9.8	–257.3	–6.8	–0.8	389.6
Depreciation/amortization and impairment losses/reversals	79.9	39.7	13.7	329.7	77.4	—	540.4
EBITDA	616.6	147.7	23.5	72.4	70.6	–0.8	930.0
EBIT includes: result from investments in joint ventures and associates	31.8	—	—	—	99.9	—	131.7
Impairment of fixed assets	—	–1.4	—	—	—	—	–1.4
Asset additions ¹	222.7	71.0	17.9	62.2	87.1	—	460.9
Additions to financial assets	—	—	—	—	—	—	—
Asset additions	222.7	71.0	17.9	62.2	87.1	—	460.9
Assets (Dec. 31)	1,770.3	686.3	207.1	2,262.7	2,192.5	–0.2	7,118.7
Liabilities (Dec. 31)	826.3	307.6	78.2	712.4	2,048.9	–0.2	3,973.2
Net assets (Dec. 31)	944.0	378.7	128.9	1,550.3	143.6	—	3,145.5
Investments in joint ventures and associates included in net assets (Dec. 31)	41.7	—	—	—	616.6	—	658.3
Research and development expenses	60.9	30.0	6.3	32.8	34.6	—	164.6
Employees (Dec. 31)	5,114	1,600	709	2,549	4,570	—	14,542
Employees (average)	4,990	1,575	665	2,548	4,523	—	14,301

¹ Intangible assets; property, plant and equipment; investment property; excluding right-of-use assets

The segment information by division is an integral part of the Notes to the Consolidated Financial Statements. For explanations of the key indicators, see Note 22.

c.8 Segment Information by Region

January 1 to December 31

€ million	Germany	Rest of Europe	The Americas	Asia	Other regions	Consolidation	Group
2019							
External sales by customer location	796.5	1,207.5	919.5	1,763.8	240.3	—	4,927.6
External sales by Group company location	3,791.3	186.2	1,249.7	980.5	13.1	−1,293.2	4,927.6
Asset additions ¹	219.9	53.8	47.8	57.9	0.1	—	379.5
Additions to financial assets	6.6	—	—	—	—	—	6.6
Asset additions	226.5	53.8	47.8	57.9	0.1	—	386.1
Assets (Dec. 31)	6,664.7	2,306.1	1,812.2	737.2	10.9	−5,040.1	6,491.0
Liabilities (Dec. 31)	4,138.4	191.6	504.3	225.8	6.9	−605.0	4,462.0
Net assets (Dec. 31)	2,526.3	2,114.5	1,307.9	511.4	4.0	−4,435.1	2,029.0
Noncurrent assets ²	1,807.0	215.7	1,064.9	357.3	6.4	—	3,451.3
Research and development expenses	174.0	0.4	18.2	14.2	—	−33.5	173.3
Employees (Dec. 31)	10,356	640	1,735	1,859	68	—	14,658
2018							
External sales by customer location	871.7	1,225.0	878.2	1,756.9	247.0	—	4,978.8
External sales by Group company location	3,876.2	142.1	1,106.1	979.5	13.0	−1,138.1	4,978.8
Asset additions ¹	220.4	63.1	99.5	77.8	0.1	—	460.9
Additions to financial assets	—	—	—	—	—	—	—
Asset additions	220.4	63.1	99.5	77.8	0.1	—	460.9
Assets (Dec. 31)	6,339.6	2,231.4	2,543.4	719.5	7.3	−4,722.5	7,118.7
Liabilities (Dec. 31)	3,360.3	108.5	567.2	267.8	3.3	−333.9	3,973.2
Net assets (Dec. 31)	2,979.3	2,122.9	1,976.2	451.7	4.0	−4,388.6	3,145.5
Noncurrent assets ²	1,770.1	164.3	1,964.7	327.2	2.5	—	4,228.8
Research and development expenses	165.0	0.5	16.3	12.7	—	−29.9	164.6
Employees (Dec. 31)	10,291	593	1,783	1,804	71	—	14,542

¹ Intangible assets; property, plant and equipment; investment property; excluding right-of-use assets² Noncurrent assets as per IFRS 8 (excluding financial instruments, deferred tax assets and benefits after termination of the employment relationship).

The segment information by region is an integral part of the Notes to the Consolidated Financial Statements. For explanations of the key indicators, see Note 22.

Notes of the WACKER Group

Accounting Principles and Methods

The WACKER Group (WACKER) is a global chemical company with core activities in the fields of silicone and polymer chemistry, specialty and fine chemistry, and polysilicon production. The activities of the individual segments are explained in the Group management report. The Group's parent company, Wacker Chemie AG, is a listed company under the laws of the Federal Republic of Germany and has its headquarters in Munich, Germany (entered in Munich's commercial register under HRB 159705). Its registered office is at Hanns-Seidel-Platz 4, 81737 Munich, Germany.

The consolidated financial statements, the combined management report and any other documents subject to disclosure requirements are submitted to the publisher of the German Federal Gazette and published on WACKER's website. KPMG AG Wirtschaftsprüfungsgesellschaft audited the consolidated financial statements and the combined management report of Wacker Chemie AG and issued an unqualified audit opinion for them.

» www.wacker.com/annual-report

Wacker Chemie AG and its subsidiaries are included in the consolidated financial statements of Dr. Alexander Wacker Familiengesellschaft mbH, Munich. The consolidated financial statements of Dr. Alexander Wacker Familiengesellschaft, Munich, are disclosed to the publisher of the German Federal Gazette.

The Executive Board and Supervisory Board of Wacker Chemie AG have submitted the declaration concerning the German Corporate Governance Code required by Section 161 of the German Stock Corporation Act (AktG) and made it accessible to the public on WACKER's website.

» www.wacker.com/corporate-governance

Wacker Chemie AG's consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), as applicable in the European Union (EU), and the supplementary rules in

Section 315e (1) of the German Commercial Code (HGB). The interpretations of the International Financial Reporting Interpretations Committee (IFRIC) that were applicable in the year under review have also been implemented.

The fiscal year corresponds to the calendar year. Assets and liabilities are reported in the statement of financial position in line with their maturities. The Group classifies assets and liabilities as current if it expects to realize or settle them within 12 months of the reporting date. The statement of income is prepared using the cost-of-sales method. To improve the clarity of presentation, various items in the statement of income and in the statement of financial position have been combined. These items are shown and explained separately in the Notes.

The Group's reporting currency is the euro. Unless stated otherwise, all amounts are shown in millions of euros (€ million). There may be slight deviations in the additions as all amounts have been rounded up to the nearest whole number after the decimal point.

Material events occurring after the reporting date are described in detail in Note 25. The Executive Board of Wacker Chemie AG approved the consolidated financial statements on March 4, 2020. They will be submitted to the Supervisory Board for approval at its meeting on March 11, 2020.

New Accounting Standards

IFRS 16 "Leases"

IFRS 16 "Leases" supersedes the existing IAS 17 standard for leases and related interpretations, and is applicable for reporting periods beginning on or after January 1, 2019. For lessees, IFRS 16 introduces a uniform accounting approach in which all leases are capitalized as right-of-use assets and the corresponding payment obligations incurred are recognized as liabilities. A contract is, or contains, a lease if it conveys the right to control the use of an identified asset and WACKER obtains control of this asset at the same time. The requirements for lessors, on the other hand, remain largely unchanged, especially as regards the continuing requirement to classify leases as operating or finance leases. In leases that have previously been classified as operating leases in accordance with IAS 17, the lease liability is measured at the present value of the remaining lease payments and discounted at the lessee's incremental

borrowing rate at the date of initial application. The right-of-use asset is measured at an amount equal to the lease liability plus initial direct costs. As opposed to the previous presentation of expenses for operating leases, right-of-use assets are amortized, and interest expenses of lease liabilities recognized. Payments for short-term leases and leases of low-value assets are expensed.

The new standard particularly impacts WACKER's recognition and measurement of leases that were previously classified as operating leases. This mainly concerns leases for offices, storage areas, vehicles and other operating equipment.

On transition to IFRS 16 as of January 1, 2019, right-of-use assets of €153.8 million and lease liabilities of €166.0 million were recognized. WACKER's investment property rose due to right-of-use assets of €7.7 million from long-term sublease agreements for parts of its Munich headquarters. Lease liabilities were discounted at the lessee's incremental borrowing rate as of January 1, 2019. The weighted average interest rate was 1.5 percent. Recognition of previous finance lease liabilities as of December 31, 2018 resulted in right-of-use assets of €22.5 million and lease liabilities of €26.3 million. The right-of-use assets are shown as a separate line item in the statement of financial position. Lease liabilities are part of noncurrent and current financial liabilities. On balance, the changes resulted in deferred tax assets of €0.7 million. As of January 1, 2019, the net effect on retained earnings was an addition of €0.4 million.

Reconciliation of the Opening Balance of Lease Liabilities

€ million	Jan. 1, 2019
Operating lease obligations as of Dec. 31, 2018	116.8
Minimum lease payments (nominal value) of liabilities from finance leases as of Dec. 31, 2018	47.6
Practical expedients for short-term leases	-2.8
Practical expedients for leases of low-value assets	-8.7
Lease-related liabilities (service components)	0.4
No leases as per IFRS 16	-3.7
Exercise of probable options	50.7
Other	-1.4
Gross lease liabilities as of Jan. 1, 2019	198.9
Discounting	-32.9
Lease liabilities as of Jan. 1, 2019	166.0
Present value of liabilities from finance leases as of Dec. 31, 2018	-26.3
Additional lease liabilities due to initial application of IFRS 16 as of Jan. 1, 2019	139.7

The transition to IFRS 16 took place using the modified retrospective approach. The comparative figures for prior-year periods were not restated. WACKER claimed the following exceptions on initial application:

- Leases previously accounted for as IAS 17 finance leases are recognized as right-of-use assets and lease liabilities at the carrying amounts of the leased assets and the finance lease liabilities, respectively
- Application of a single discount rate for a portfolio of leases with similar characteristics
- Classifying as short term those leases that had residual maturities of less than 12 months as of January 1, 2019
- The exclusion of initial direct costs when assigning the value of right-of-use assets at the date of initial application

There were no onerous leases at the date of initial application of IFRS 16.

Other accounting standards and interpretations applied for the first time in these consolidated financial statements are:

Standard/ Interpretation		Mandatory from	Endorsed by EU	Impact on WACKER
IFRIC 23	Uncertainty over Income Tax Treatments	Jan. 1, 2019	Oct. 23, 2018	The interpretation contains rules for recognizing and measuring uncertain tax positions and hence closes existing gaps in IAS 12, "Income Taxes." Uncertain tax positions comprise all risk-related tax issues. They relate to uncertainties regarding acceptance by the tax authorities. Recognition of an uncertain tax position (whether asset or liability) depends on whether a payment is assessed as being probable. An uncertain tax position can affect both current taxes and deferred tax assets. Determining an uncertain tax position requires uniform estimates and assumptions. The interpretation did not result in any change in the WACKER Group's earnings, net assets or financial position. As of December 31, 2019, WACKER renamed as tax liabilities the items recognized as income tax provisions in the consolidated statement of financial position. The prior-year figures were adjusted accordingly.
	Annual Improvements to IFRSs, 2015–2017 Cycle	Jan. 1, 2019	March 14, 2019	As part of the annual improvement process, the following clarifications have been made. IFRS 3, "Business Combinations," and IFRS 11, "Joint Arrangements": acquiring additional shares to obtain control in a former joint venture necessitates the remeasurement of the previously held interests as an acquisition achieved in stages; if there is no change in the determination of a joint arrangement, the previously held interest is not remeasured. WACKER currently does not recognize any joint arrangements according to IFRS 11. Amendments to IAS 12, "Income Taxes," relating to income tax consequences of dividend payments: these amendments have no impact on WACKER. Amendments to IAS 23, "Borrowing Costs": WACKER has already been applying this clarification, which requires that borrowings that were directly attributed to a specific qualifying asset in accordance with IAS 23 are reallocated to general borrowing costs after completion of the asset and become eligible for capitalization as part of IAS 23.
Amendments to IAS 19	Employee Benefits – Plan Amendment, Curtailment or Settlement	Jan. 1, 2019	March 13, 2019	The change concerns the determination of the current service cost following an intervention in a defined benefit plan. For the time period between the intervention and the end of the reporting period, the current service cost and the net interest cost are remeasured using the actuarial assumptions and the net defined benefit liability determined at the time of the plan amendment. WACKER may be affected by this change in the case of plan amendments. At the present time, however, the change has had no impact on our earnings, net assets or financial position.

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Other standards and interpretations to be applied for the first time are not applicable due to the absence of relevant circumstances.

Accounting Standards/Interpretations Not Applied Prematurely

The International Accounting Standards Board (IASB) has published the following standards, interpretations, and

amendments to existing standards, the application of which is not yet mandatory and which WACKER is not applying earlier than required. Only those standards that are relevant to WACKER are mentioned. WACKER evaluates every new standard to determine its impact on the consolidated financial statements.

Standard/ Interpretation		Publication by IASB	Mandatory from	Endorsed by EU	Anticipated Impact on WACKER
Amendments to IFRS 3	Business Combinations – Definition of a Business	Oct. 22, 2018	Jan. 1, 2020	Q1 2020	The amendments have changed the definition of a business in IFRS 3. A business exists only if, at a minimum, a substantive process contributing to creating outputs exists or has been acquired. If an acquisition's fair value is focused solely on purchased assets, it is not considered a business and IFRS 3 is therefore not applied. WACKER will be affected by these amendments for future acquisitions.
Amendments to IAS 1 and IAS 8	Definition of Material	Oct. 31, 2018	Jan. 1, 2020	Dec. 10, 2019	The amendments clarify that information is material if omitting or misstating it could reasonably be expected to influence decisions that the primary users of financial statements make. Primary users of financial statements are existing investors, lenders or other creditors. WACKER already applies these materiality criteria in its published consolidated financial statements.

Scope of Consolidation

The consolidated financial statements include the financial statements of Wacker Chemie AG and all companies over which Wacker Chemie AG has direct or indirect control as defined in IFRS 10, or can exercise joint control as defined in IFRS 11. Depending on their structure, companies over which Wacker Chemie AG can exercise joint control are either included proportionately as joint operations in the consolidated financial statements (line-by-line) or accounted for as a joint venture using the equity method. In the absence of other limiting contractual agreements, holding a majority of the voting rights usually leads to control. Joint control generally exists when voting rights are equally balanced, unless other (contractual) rights result in control by one shareholder. Currently, one company with joint control is accounted for using the equity method.

Associates over which Wacker Chemie AG can exercise significant influence as defined in IAS 28 are likewise accounted for using the equity method. Unless the opposite can be clearly demonstrated, significant influence is presumed if Wacker Chemie AG directly or indirectly holds 20 percent of the voting rights in the investment.

Structured entities are consolidated in the manner described in IFRS 10 if the economic substance of the relationship indicates the existence of control. WACKER had one such structured entity in its consolidated financial statements: a special fund to which Wacker Chemie AG contributed assets. This fund was closed in 2019.

Companies in which Wacker Chemie AG has a shareholding of less than 20 percent or does not exercise significant influence are shown as other investments under noncurrent financial assets.

A detailed list of the companies included in the consolidated financial statements and of Wacker Chemie AG's entire shareholdings is shown in the Breakdown of Shareholdings section in accordance with Sections 285 and 313 of the German Commercial Code.

» See Note 23 to the Consolidated Financial Statements

Composition of the Group

Number	2019	2018
Fully consolidated subsidiaries (incl. parent company)	50	52
Germany	15	15
International	35	37
Companies accounted for using the equity method	4	3
Germany	1	1
International	3	2
Non-consolidated affiliated companies	—	—
Germany	—	—
International	—	—
Total	54	55
Germany	16	16
International	38	39
Structured entities	—	1
Germany	—	1
International	—	—

A total of 54 companies were included in the consolidated financial statements as of December 31, 2019 (Dec. 31, 2018: 55 companies).

Compared with December 31, 2018, the scope of consolidation was reduced by two subsidiaries and a special-purpose entity. SynCo Bio Partners Investments B. v., Amsterdam, the Netherlands, was liquidated as of May 23, 2019. On June 27, 2019, WACKER Biotech Holding B. v., Amsterdam, the Netherlands, merged with WACKER Biotech B. v., Amsterdam, the Netherlands. Both companies were acquired in 2018. In Q3 2019, Nexxon Ltd., UK, was included in the consolidated financial statements as an equity-accounted investment. WACKER acquired a 24.992-percent share in this company on September 11, 2019. The transaction was not material to the Group.

A year earlier, WACKER had acquired a production site for biopharmaceutical proteins in Amsterdam (the Netherlands) from SynCo Bio Partners Luxembourg S.à r.l., Luxembourg – along with the associated business portfolio.

This subsidiary essentially operates two fermentation lines and a sterile fill-and-finish facility, and has around 100 employees.

The purchase price of the company amounted to €23.5 million and comprised a one-off payment in cash and an amount retained for subsequent adjustments, as well as the assumption of debt.

Legal, contractual or regulatory restrictions and protective rights concerning non-controlling interests can limit the Group in its ability to retain access to assets, transfer these to or from other companies unhindered within the Group, or to settle Group debts. The distribution of dividends can be limited by the need to prioritize retirement of shareholder loans. As of the reporting date, there were no significant restrictions due to protective rights to the benefit of non-controlling interests. For more information, please refer to the Equity/Non-Controlling Interests/Capital Structure Management section in these Notes.

» See Note 12

In certain countries, regulatory requirements or local corporate-law stipulations can limit the Group's ability to transfer assets to or from other companies within the Group. Cash and cash equivalents are subject to local foreign-exchange restrictions in some Asian and South American countries. Capital may be exported from such countries only with prior approval from government authorities and by means of capital measures (dividends, capital reductions). There are no other significant limitations on the utility of assets within the Group.

Consolidation Methods

The consolidated financial statements include subsidiaries, joint operations, joint ventures and associates. The reporting date for all of these companies is December 31.

Business combinations are recognized by applying the acquisition method as defined in IFRS 3. The assets acquired and liabilities assumed are recorded at their respective fair values applicable on the date that WACKER gained control.

Goodwill is the amount on the acquisition date by which the sum of acquisition costs, any existing non-controlling interests and the fair value of any previously held equity interests exceeds the acquired entity's net assets measured at fair value. Negative differences are recognized in profit or loss immediately after performing an additional review of the purchase price allocation.

For each acquisition, the individual option exists of measuring any shares not acquired either at fair value or at the proportionate share of the fair value of the acquired

entity's net assets. These non-controlling interests are recognized in the statement of financial position under the line item of the same name.

Costs associated with the business combination are recognized as other operating expenses insofar as they are not costs for issuing debt instruments or equity securities.

Investments accounted for using the equity method are initially measured at cost when the acquisition is made. If the cost exceeds the pro rata share of the remeasured net assets, the difference (goodwill) is included in the carrying amount of the investment. The carrying amount has to be tested for possible impairment losses as of the reporting date. The carrying amounts of these entities are increased or decreased annually to reflect their pro rata earnings, dividend payouts or other changes in equity. If there is any indication that the value of the investment has been permanently reduced, an impairment is recognized in profit or loss.

Interim results, sales, expenses, income, receivables and liabilities between the consolidated companies, as well as pro rata profits and losses resulting from transactions with associates, are eliminated.

Estimates and Assumptions Used in Acquisitions and Consolidation

Determining the fair values of the acquired assets and liabilities requires certain estimates and assumptions, especially concerning the acquired intangible assets and property, plant and equipment, as well as the liabilities assumed and the useful lives of the acquired intangible assets and property, plant and equipment.

Measurement is based to a large extent on anticipated cash inflows and outflows. If actual cash inflows and outflows vary from those used to calculate fair values, this may affect future Group net income.

In the case of significant business combinations, a purchase price allocation is performed with the assistance of independent third-party valuation specialists. The valuations are based on the information available at the acquisition date.

Discretionary decisions can be made whenever it is necessary to evaluate whether control, joint control or significant influence exists for entities in which WACKER holds less than 100 percent of the voting rights. Primarily in cases where WACKER holds 50 percent of the voting rights, it must be assessed whether there are additional contractual rights or, in particular, factual circumstances that could result in WACKER having the authority to make decisions regarding the potential subsidiary, or whether joint control exists.

Changes to the contractual agreements or factual circumstances are monitored and assessed in terms of their possible impact on the evaluation of whether control or joint control exists.

Foreign Currency Translation

In the Group companies' separate financial statements, all of the receivables and liabilities in foreign currencies are translated at the rate prevailing on the reporting date, regardless of whether or not they have been hedged. Forward contracts that, from an economic point of view, are used for hedging are reported at fair value. The resulting translation differences are recognized in profit or loss or, if cash flow hedges are in place, in other equity items.

The financial statements of consolidated companies that are prepared in foreign currencies are translated on the basis of the functional currency principle using the modified closing rate method. This means that balances are translated from the functional currency to the reporting currency using the middle rates of exchange prevailing on the reporting date, while income statement amounts are translated using the average exchange rates of the period. As the Group's subsidiaries conduct their business in financial, economic and organizational autonomy, their functional currencies are basically identical to their respective local currencies. Any net gains or losses arising from the translation of equity are recognized in other equity items. Translation differences resulting from divergent exchange rates in the statement of income are likewise included there. If Group companies are removed from the scope of consolidation, any translation difference is reclassified from equity to profit or loss.

The exchange rates between the most important currencies reported in these financial statements and the euro were as follows:

	ISO code	Exchange rate as of		Average exchange rate	
		Dec. 31, 2019	Dec. 31, 2018	2019	2018
US dollar	USD	1.12	1.14	1.12	1.18
Chinese renminbi	CNY	7.81	7.86	7.73	7.81

Estimates and Assumptions Used in Preparing Consolidated Financial Statements

The preparation of the consolidated financial statements in compliance with IFRS necessitates assumptions and estimates affecting the amounts and the disclosure of the recognized assets and debts, income and expenses, and contingent liabilities and contingent assets. These assumptions and estimates comply with the conditions and appraisals prevailing on the reporting date. In this regard, they also impact the amount of income and expenses recognized for the fiscal years in question. The assumptions on which the estimates are based relate primarily to the uniform determination of useful lives throughout the Group, the ascertainment of fair values of financial instruments, the recognition and measurement of provisions, the realizability of future tax benefits, estimates relating to lease accounting, and the determination of discounted cash flows made in connection with impairment tests and purchase price allocations.

In individual cases, the actual values may differ from the assumptions and estimates that were made. Changes in value are recognized as soon as they become apparent and affect the net results for the period when the change occurred and, if applicable, in future reporting periods.

Intangible Assets and Property, Plant and Equipment/Investments in Associates Accounted for Using the Equity Method

The expected useful lives of intangible assets and of property, plant and equipment, together with their amortization/depreciation schedules, are based on past experience, plans and estimates. This includes estimates of the period and allocation of future cash inflows derived from the investments made, as well as future technical advancements and ongoing replacement and development cycles.

Impairment tests are performed for assets if specific indicators point to a possible impairment loss or reversal of an impairment loss. In the case of a possible impairment, an estimate must be made of the recoverable amount of the affected asset that corresponds to the higher of either the fair value less costs to sell or the value in use. To ascertain the value in use, it is necessary to determine the discounted future cash flows of the affected asset. The estimate of the discounted future cash flows contains significant assumptions such as, in particular, those regarding future selling prices and sales volumes, costs, and discount rates. Although WACKER assumes that the estimates of the relevant expected useful lives and of discounted future cash flows, as well as the assumptions regarding the general economic conditions and the development of the economic sectors, are reasonable, a change in the assumptions or circumstances might necessitate a change in the analysis. The trends in WACKER products' sales prices and raw-material prices will have the most significant impact on future cash flows. This could result in significant deviations from the figures posted, which may lead to additional impairment losses or reversals of impairment losses.

» See Note 05

Leases

Lease liabilities are accounted for using the contractual lease terms. Assumptions and estimates are necessary to determine the lease term and the underlying discount rate. The lessee is unaware of the interest rate contained in the lease, which is why WACKER calculates the incremental borrowing rate using a risk-free interest rate plus an extrapolated credit spread that reflects WACKER's refinancing level.

» See Note 06

Financial Instruments

Financial instruments are measured at fair value, while other assets and liabilities are disclosed at fair value in the notes to the financial statements. Calculation of the fair value of financial instruments may require making estimates, which may be more or less extensive depending on the extent to which non-observable input parameters are taken into account. When calculating fair value, WACKER strives to include as many observable input parameters as possible and to keep the use of non-observable factors to a minimum. If the fair value cannot be calculated reliably, the carrying amount is taken as an approximate figure to determine it.

In accordance with IFRS 13, financial instruments that are measured or recognized at fair value in the consolidated financial statements must be measured and classified according to the fair value hierarchy. This hierarchy consists of three levels, to which the input parameters are assigned in accordance with the extent to which they are observable during the corresponding measurement process.

» See Note 19

Impairments of Financial Assets

Impairments of financial assets are based on credit-default risk and expected loss rates. When preparing these assumptions and selecting inputs to calculate impairment, WACKER exercises discretion on the basis of past experience, current market conditions and forward-looking estimates as of the end of the reporting period. The most important assumptions and inputs are based on credit ratings and credit insurance, as well as on macroeconomic analyses, all of which provide the basis for classification in risk classes.

» See Note 10

Provisions

Significant risks inherent in environmental protection provisions and in provisions for damages and onerous contracts include possible changes in future cost/benefit estimates, changes in the likelihood of their utilization, and expanded statutory rules concerning the elimination and prevention of environmental damage. Changes in the discount rate also lead to adjustments in noncurrent provisions, reflecting the current environment of low interest rates. This results in higher carrying amounts for noncurrent provisions. As of December 31, 2019, a floor of zero applied to discount rates, meaning negative interest rates are not taken into account.

» See Note 14

Pensions and similar obligations are accounted for in accordance with actuarial valuations, which are based on statistical and other factors in order to anticipate future events. The factors in question include the discount rate, expected salary and pension increases, the mortality rate and rate increases for preventive health care. If market and economic conditions change, these assumptions could vary considerably from actual developments, consequently leading to major changes in pension and similar obligations, as well as in associated future expenses. In particular, the current environment of low interest rates has an impact on the carrying amount of pension provisions.

» See Note 13

The pension obligation is determined by discounting the WACKER-specific, expected future cash flows. The discount rate is derived from the yield curve of high-grade, fixed-interest corporate bonds with maturities matching the pension obligations, as calculated at the reporting date. The bonds are all denominated in the same currency as their underlying pension obligations. In Germany, WACKER changed over to Markit iBoxx EUR AA Corporate Bond Index bonds as of January 1, 2019. Moreover, we use the composite yield curve of four countries' government bonds (Austria, Belgium, Finland and France), which are currently rated AA and have a maximum maturity of about 100 years. The changeover caused the pension obligation to rise by €56 million. Any negative discount rate derived from these parameters is taken into account when determining the present value of the pension provisions and other long-term employee benefits, such as anniversary provisions.

WACKER is active worldwide and subject to local tax laws. Although we believe to have reasonably assessed tax uncertainties, we cannot ensure that the actual outcome will match the original assessment. If the actual results diverge from this assessment, this could impact the tax liabilities and deferred taxes in the specific period of recognition. Tax liabilities contain uncertain tax positions for cases where it might not be possible to realize the amounts stated in tax returns.

112 Deferred Taxes

At each reporting date, the Group assesses whether the probability of future tax benefits being realized is sufficient to recognize deferred tax assets. Among other things, this requires management to evaluate the tax benefits resulting from currently available tax strategies and future taxable income, and also to take additional positive and negative factors into account. In the case of companies that have reported tax losses in the past, deferred tax assets are capitalized only in exceptional cases, where there is convincing other evidence that they can be realized.

Accounting and Valuation Principles

The financial statements of Wacker Chemie AG and its German and international subsidiaries are prepared in accordance with uniform accounting and valuation principles.

The accounting and valuation methods correspond to those used for the last consolidated financial statements as of the end of the previous fiscal year. They have been supplemented by new accounting standards to be

applied for the first time in the reporting year. The Group's consolidated financial statements are based on acquisition and production costs (historical costs), with the exception of items measured at fair value, which include financial assets, derivatives, and plan assets within the scope of pension obligations.

Sales

Sales comprise revenue from contracts with customers and from other sources. The consideration expected to be received in exchange for transferring goods or services to a customer in the ordinary course of business is reported as revenue from contracts with customers. Revenue is recognized when a performance obligation has been satisfied and the customer has obtained control of the good or service. This can occur either over a period of time or at a point in time and involves a five-step system. First, a contract with a customer and its performance obligations are identified. Then, the transaction price is determined and allocated. Revenue must be recognized for each individual performance obligation when the customer obtains control of the good or service. In certain transport clauses, transport costs represent a separate performance obligation since the freight/transport performance is not concluded until control has been transferred to the customer. Revenue recognition usually takes place when the goods are transferred to the customer or as stipulated in the agreed transport terms. Certain revenues from services are generated over a period of time, during which the services are rendered and documented in accordance with contractual milestones. Revenue recognition takes place when a milestone is completed, at which point the right to payment arises.

Other revenue concerns the proceeds of sales that are not from contracts with customers and are recognized at the fair value of the consideration received or receivable for the goods or services sold.

Revenue is reported net of VAT and other taxes incurred in connection with the sales and after accounting for discounts and price reductions. Sales are not reported if there are risks attached to the receipt of the consideration. In the case of risks from returns of finished goods and merchandise, warranties and other complaints, provisions are recognized using the principle of individual evaluation.

When a contracting party (customer or supplier) has fulfilled its contractual obligations, an entity must present the contract as a contract asset or contract liability depending

on whether the entity has completed performance or the customer has made payment. An entity must show every unconditional right to receive consideration as a separate receivable. WACKER currently recognizes only contract liabilities in its statement of financial position. These liabilities include advance payments made by customers for polysilicon deliveries and advance payments made by WACKER BIOSOLUTIONS customers. Customer-specific discount accruals are also reported as contract liabilities. Discount accruals are contractually agreed discounts that are granted when certain thresholds are exceeded and that reduce sales in the current period. These accruals are estimated on the basis of past experience and usually settled in the following period at the latest.

Functional Costs

The cost of goods sold shows the cost of the products, merchandise and services sold. It includes not only directly attributable costs, such as material costs, personnel expenses and energy costs, but also indirect costs, such as depreciation/amortization and impairments, and inventory write-downs. This item also includes the cost of outward freight. Selling expenses include costs incurred by the sales organization as well as the cost of advertising and market research. This item also includes commission expenses. General administrative expenses include the pro rata payroll and material costs of corporate control functions, human resources, accounting and information technology, unless they have been charged as an internal service to other cost centers and thus, in certain circumstances, to other functional areas.

Research and Development Expenses

Research and development expenses include costs incurred in the development of products and processes. Research costs in the narrow sense are recognized as expenses when they are incurred and are not capitalized. Development costs are capitalized only if all the prescribed recognition criteria have been met, the research phase can be separated clearly from the development phase, and the costs incurred can be allocated to the individual project phases without any overlaps. Additionally, there must be sufficient certainty that future cash inflows will take place.

Income Taxes

Income taxes include all domestic (German) and international taxes that are based on taxable earnings. They include both current income taxes and deferred taxes. Current income taxes are calculated based on the taxable

earnings and the applicable tax regulations in each country in the reporting year. These taxes also contain adjustment amounts for any incurred tax payments or tax refunds from outstanding tax returns, or from tax audits from prior years.

Income tax liabilities are recognized to cover cases in which it might not be possible to realize the amounts stated in tax returns (uncertain tax positions). Their amount is calculated using the best possible estimate of the expected tax payment for the specific item (the most likely value of the tax uncertainty). Income tax receivables from uncertain tax positions are recognized if it is likely that they can be realized. No income tax liability or income tax receivable is posted for these uncertain tax positions if, and only if, a tax loss carryforward or an unused tax credit exists. Instead, the uncertain tax position is offset against the unused tax loss carryforward or the unused tax credit, insofar as the offset is not subject to restrictions.

Deferred tax assets and liabilities are recognized for temporary differences between tax bases and carrying amounts, and for consolidation measures recognized in the statement of income. Deferred tax assets include tax relief entitlements resulting from the anticipated use of existing loss carryforwards in future years, the realization of which is sufficiently probable. Deferred taxes are determined on the basis of the tax rates which, under current law, will be applicable or are anticipated in the individual countries when they are realized. Deferred tax assets and liabilities are netted out only to the extent possible under the same tax authority. Deferred tax assets and liabilities are recognized in the statement of income. In cases where profits or losses are recognized directly in equity, the deferred tax asset or liability is likewise posted under other equity items.

Intangible Assets

Pursuant to IAS 38, acquired and internally generated intangible assets are capitalized if it is probable that a future economic benefit can be associated with the use of the asset and the costs of the asset can be determined reliably. They are measured at cost and, if their useful lives can be determined, amortized on a straight-line basis. The useful life is taken to be between 3 and 15 years unless indicated otherwise, e.g. by the life of a patent. The useful life is reviewed annually and, if necessary, adjusted to correspond to the latest expectations. Amortization of intangible assets is allocated to the functional areas that use the assets. Intangible assets with indefinite useful

lives undergo an annual impairment test. At present, no intangible assets with indefinite useful lives have been capitalized.

Goodwill is not subject to amortization. Existing goodwill undergoes an annual impairment test. If the impairment test indicates a recoverable amount that is lower than the carrying amount, the goodwill is reduced to its recoverable amount and an impairment loss is recognized. If events or circumstances indicate a possible impairment, the intrinsic value is also examined. Impairments of goodwill are presented under other operating expenses.

Property, Plant and Equipment

Property, plant and equipment is capitalized at cost and depreciated on a straight-line basis over its expected economic life. The useful life is reviewed annually and, if necessary, adjusted to correspond to expectations. Acquisition costs include not only the purchase price, but also incidental acquisition costs as well as any costs incurred in the demolition, dismantling and/or removal of the asset in question from its site, and in the restoration of that site. Any reductions in the price of acquisition reduce the acquisition costs. The cost of internally generated assets includes all costs directly attributable to the production process as well as an appropriate portion of the production-related overheads. Financing costs that were incurred in connection with particular qualifying assets and can be attributed directly or indirectly to them are capitalized as part of acquisition or production costs until the assets are used for the first time.

Day-to-day maintenance and repair costs are expensed as incurred. Costs for replacing parts or carrying out major overhauls of property, plant and equipment are capitalized if future economic benefits are likely to accrue to the Group and if the costs can be measured reliably.

Grants from third parties reduce acquisition and production costs. Unless otherwise indicated, these grants (investment subsidies or development loans) are provided by government bodies. Income grants for which there are no future expenses are recognized as income. Grants are recognized as separate assets until receipt of the funds.

If property, plant and equipment is permanently shut down, sold or given up, the acquisition or production costs are derecognized, along with the corresponding cumulative depreciation. Any gain or loss resulting from the difference

between the sale proceeds and the residual carrying amount is recognized under other operating income or expenses.

Depreciation of property, plant and equipment is generally based on the following useful lives:

In years	Useful life
Production buildings	10 to 40
Other buildings and similar rights	10 to 30
Technical equipment and machinery	6 to 12
Motor vehicles	4 to 10
Factory and office equipment	3 to 12

An impairment test is carried out when relevant events or changes in circumstances indicate that it might no longer be possible to realize the net carrying amount of intangible assets, or property, plant and equipment. At the end of each reporting period, WACKER checks whether there are triggering events for recognizing (or reversing) impairments. An impairment loss is then recognized in the amount by which the carrying amount exceeds the recoverable amount. The recoverable amount is the higher of either the fair value less costs to sell or the value in use. The value in use is calculated based on the present value of the estimated future cash flows from the use of the asset, taking into account pre-tax interest rates that have been adjusted to reflect the segment-specific risk. In order to determine the cash flows, assets are combined at the lowest level for which cash inflows can be identified separately (cash-generating units). If the reasons for recognizing impairments no longer exist, impairment losses are reversed. The revised amount cannot exceed the carrying amount that would have been determined had no impairment loss been recognized. Impairments are reported under other operating expenses and reversals of impairment losses under other operating income.

Government Grants

If their inflow is sufficiently certain, government grants for assets are deducted from the asset's carrying amount and recognized as income using a reduced depreciation/amortization charge over the depreciable/amortizable asset's useful life. Government grants that compensate the Group for incurred expenses are deducted from the corresponding expenses in the period in which the expenses to be compensated are also incurred.

Investment Property

Like property, plant and equipment, investment property is measured in accordance with the cost model. It consists of land and buildings that are held to earn rental income or for capital appreciation. The fair value of this property is regularly measured by means of external property valuations. This balance-sheet item also includes right-of-use assets from long-term subleases.

Leases

Since January 1, 2019, WACKER has accounted for leases in accordance with IFRS 16 "Leases." At the start of a contract, WACKER assesses whether the agreement constitutes or contains a lease. This is the case if the agreement grants control over use of an identifiable asset against payment of a fee for a specific term. When the agreement is concluded or modified, the agreed fee must be divided up into a lease component and a non-lease component. WACKER does not perform this separation, however, since all its identified leases are solely of a lease-fee nature.

WACKER recognizes a right-of-use asset, which is initially measured at cost and corresponds to the lease liability. As initially measured, the lease liability comprises payments made plus any initial costs, less possible costs for dismantling or reconstruction of the site. The right-of-use asset is then amortized on a straight-line basis over the lease term. If WACKER assumes control of the asset at the end of the lease, or if the lease liability contains a purchase option, the asset is amortized over its useful life.

The lease liability is initially measured at the present value of the remaining lease payments as of the date of availability and discounted at the Group's incremental borrowing rate. When calculating the incremental borrowing rate, WACKER determines the interest rates on the basis of various external financing sources with a similar rating to Wacker Chemie AG in certain maturity bands. In the case of property leases, adjustments are made due to the leased property's security-related function.

The evaluation includes both fixed and variable lease payments. The latter are tied to an index or interest rate, and calculated for the first time on the date of availability. Lease payments from extension options or payments from purchase options are included only if it is sufficiently certain they will be exercised. Penalty payments from premature termination are recognized if WACKER is certain premature termination will take place.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured if the contract is modified or the estimates regarding exercise of the options are amended.

Right-of-use assets are shown as a separate line item in the statement of financial position. Lease liabilities are recognized under financial liabilities. WACKER has decided not to recognize right-of-use assets and lease liabilities if the assets in question are of low value or the leases are short term (including IT equipment). The lease payments are recognized as expenses. Leased company cars for employees are not recognized as subleases, but rather as salary components under IAS 19 "Employee Benefits."

As a lessor, WACKER classifies a lease as being either a finance lease or an operating lease. WACKER acts as a lessor where property subleases are concerned. This classification takes account of indicators such as whether the lease comprises the predominant part of the economic use of the asset or right-of-use asset. The Group recognizes main leases and subleases separately if it acts as an intermediary lessor. It classifies a sublease on the basis of the right of use from the corresponding main lease.

In the past, lease transactions were classified as being either finance leases or operating leases. Assets used under operating leases were not capitalized. Lease payments were recognized in profit or loss in the period in which they fell due. A finance lease was a leasing arrangement in which essentially all of the risks and rewards inherent in the ownership of the property were transferred to the lessee. Assets used under finance leases were recognized at the present value of the minimum lease payments. Leases could be embedded in other contracts. Where the IFRSs stipulated separation of the embedded leasing arrangement, the contractual components were recognized and measured separately in accordance with the respective rules.

Property, plant and equipment also included assets relating to leasing transactions. Items of property, plant and equipment financed by means of finance leases were recognized at fair value at their time of addition, unless the present values of the minimum lease payments were lower. The assets were amortized on a straight-line basis over the expected useful life, or the contractual term if shorter. The obligations resulting from future lease payments were recognized under financial liabilities. In accordance with the effective interest method, the lease installments to be paid were split up into a redemption component and an interest component.

Investments, Associates and Joint Ventures

Shares in non-consolidated affiliated companies and investments are measured at market value. Changes in market value are recognized in the consolidated statement of income upon realization through disposal or if the market value falls below the acquisition cost. Loans granted are measured at amortized cost, except for non-interest-bearing and low-interest loans, which are recognized at their present value.

Investments in joint ventures and associates are accounted for using the equity method, with the carrying amount reflecting the Group's pro rata share of equity. Pro rata net profits and losses are recognized in the consolidated statement of income, and the carrying amount is increased or decreased accordingly. Any changes in equity recognized directly in the investee's equity are also recognized directly in equity in the consolidated financial statements. Dividends paid by joint ventures and associates reduce their equity and are therefore deducted from the carrying amount without affecting profit. If a joint venture or associate faces losses that have exhausted its equity, no further losses are taken into account. Exceptions can be made if there are noncurrent unsecured receivables against the company, or the Group has entered into additional obligations or made payments for the company. The carrying amount is not increased until the loss carryforward has been compensated for and the equity is positive again.

In addition, an impairment test is carried out in the presence of corresponding indications and, where necessary, an impairment loss is recognized. The recoverable amount is determined in accordance with IAS 36. Impairment losses are reported in the result from investments in joint ventures and associates.

Financial Instruments

Financial assets and liabilities are recognized in the consolidated financial statements when WACKER becomes a contracting party to the financial instrument. They are derecognized when the contractual rights or liabilities are fulfilled or rescinded, or when they expire.

In the case of normal market purchases or sales, however, the settlement date – i.e. the date on which the asset is delivered to or by WACKER – is relevant for initial recognition and derecognition. As a rule, financial assets and financial liabilities are not netted. A net amount is presented in the statement of financial position if, and only if, the entity currently has a right to net the recognized amounts and intends to settle on a net basis.

Financial instruments are measured at fair value on initial recognition. The transaction costs directly attributable to the acquisition must be taken into account for all financial assets and liabilities not subsequently measured at fair value through profit or loss. The fair values recognized in the statement of financial position generally correspond to the market prices of the financial assets and liabilities. If these are not directly available, they are calculated using standard valuation models on the basis of current market parameters.

Financial assets at WACKER include, in particular, cash and cash equivalents, trade receivables and derivatives, as well as financial assets that are held to collect or held for trading. As a general rule, financial liabilities must be settled using cash or another financial asset. Financial liabilities include, in particular, the Group's own bonds and other securitized liabilities, trade payables, liabilities to banks, lease liabilities, promissory notes (German *Schuldscheine*) and derivative financial liabilities.

WACKER does not elect to measure financial assets and liabilities at fair value through profit or loss on initial recognition (fair value option).

Subsequent measurement of financial assets and financial liabilities depends on the measurement categories of IFRS 9.

IFRS 9 stipulates that each financial asset must be classified and measured on the basis of the entity's business model for managing the financial assets and the asset's contractual cash flow characteristics. On initial recognition, each financial asset is classified as measured either at fair value through profit or loss (FVTPL), at amortized cost, or at fair value through other comprehensive income (FVOCI).

The "held to collect" and "held to collect and sell" business models both require that the cash flows from the financial instrument be solely payments of principal and interest (SPPI). Subject to use of the fair value option, which is still available under certain circumstances, instruments that satisfy the SPPI test are measured at amortized cost in the "held to collect" business model, and at fair value through other comprehensive income in the "held to collect and sell" business model. Financial instruments that fail the SPPI test are measured at fair value through profit or loss (FVTPL) and classified under the "trading" business model. IFRS 9 provides for an exception for interests that are not held for trading, such as company stock. Since they do not meet the SPPI test criteria, equity instruments must be measured at fair value, but upon initial recognition there is an irrevocable election to present subsequent changes in fair value in other comprehensive income. WACKER currently makes no use of this election.

At WACKER, trade receivables, as well as other financial receivables, fixed-term deposits, and cash and cash equivalents, are assigned to the "held to collect" business model and measured at amortized cost. If it is both intended and, in economic terms, to be expected with sufficient certainty that a financial instrument will be held to collect, the instrument in question is measured at amortized cost using the effective interest method.

Securities are measured at fair value provided they meet the SPPI criteria, with changes in fair value recognized in other comprehensive income (FVOCI). The securities in question are debt instruments held to collect. Unrealized gains and losses are recognized in other equity items after adjusting for deferred taxes. When financial instruments are derecognized, the cumulative gains and losses recognized in equity are recognized in profit or loss.

As fund shares and investments generate cash flows from dividends and other distributions, and thus do not satisfy the SPPI criterion, they are assigned to the "trading" business model and measured at fair value through profit or loss. The investments in question are primarily small, regional ones in non-profit organizations operating infrastructure facilities. As no active market values are available for these companies, they cannot be measured at fair value. WACKER considers the historical cost of these equity instruments to be the best approximation of their fair value.

Derivative financial instruments do not fall into any measurement category: they are measured at fair value through profit or loss. If they are intended for strategic hedging relationships, they are accounted for directly in equity.

Primary financial liabilities are subsequently measured at amortized cost using the effective interest method. Under reverse-factoring agreements, WACKER places its trade payables on a platform for its suppliers, enabling them to have their invoices settled earlier than the agreed payment date. In the case of reverse-factoring agreements, liabilities with long payment deadlines are reclassified to financial liabilities.

Impairment of Financial Assets

IFRS 9 stipulates that, with the exception of derivative financial instruments, trade receivables and other financial assets must generally be recognized at amortized cost. Securities are measured at fair value either through other comprehensive income or through profit or loss. Risk provisioning takes place in the form of loss allowances. Loss allowances are recognized for receivables on initial recognition of the financial assets on the basis of the potential losses expected at that point in time. If the credit risk is not significantly higher on the reporting date than it was on initial recognition, WACKER recognizes a loss allowance in the amount of the 12-month expected credit losses (Level 1) – meaning the credit losses that can be expected to arise from possible default events within the next 12 months. IFRS 9 requires recognition of a loss allowance in the amount of the default of receivables

expected over the full remaining term to maturity for those financial assets whose credit risk has become significantly higher (Level 2) and of assets that are defaulted as of the reporting date (Level 3). WACKER considers the credit risk to have become significantly higher if the counterparty's credit rating has been downgraded substantially and the receivable is more than 30 days past due. The main indicators WACKER uses to determine whether an asset has become defaulted (Level 3) are insolvency, internal dunning level 4 and more than 90 days past due. Regardless of this, each case must be assessed individually in line with the credit management process. In this process, the assets – particularly trade receivables – are assigned to internally defined risk classes. The internal credit classes contain forward-looking information and take account of both macroeconomic factors and payment behavior history.

WACKER applies the simplified approach when calculating impairments of trade receivables. Under this approach, the loss allowance is determined immediately upon origination on the basis of the lifetime expected credit losses. Further changes in the credit risk (expected credit loss, ECL) do not need to be tracked. The expected credit losses are determined using a provision matrix, which defines fixed default rates per past-due category on the basis of the risk classes of the past-due receivables.

The lifetime expected credit losses reflect all possible default events that could occur until the expected maturity of the financial asset. WACKER determines the expected credit loss by taking into account the entire contractual period during which the Group is exposed to the credit risk.

WACKER applies three key parameters to assess the expected credit loss for noncurrent and current interest-bearing receivables (loans and fixed-interest securities): the probability of default (PD), the loss given default (LGD) and the estimated exposure at default (EAD). In the case of loans and fixed-interest securities, WACKER determines a loss allowance equivalent to the 12-month expected credit losses, as the former are financial instruments with a low credit risk.

A financial asset is derecognized if the company no longer has any expectation of receiving the corresponding outstanding cash flow. Before a receivable is derecognized, a special assessment of the individual case is carried out. That includes offsetting against the gross value

of the receivable – and thus utilizing – any impairments recognized. Expenses from expected impairments are reported under other operating expenses.

Cash and cash equivalents comprise cash in hand, bank deposits, and financial assets that can be converted into cash at any time, are subject to only slight fluctuations in value and have a residual term of up to three months. They are measured at amortized cost, which is equivalent to their nominal values.

The general impairment model is applied to bank deposits and fixed-term deposits. These are classified as financial instruments with a low credit risk, given that WACKER enters into banking relationships only with investment-grade counterparties. In the case of banks covered by Germany's Deposit Protection Fund, no impairments are determined as the deposits are secured via the Fund. Any impairments that arise are negligible.

If the contractual conditions of an asset are modified and the modification does not result in its derecognition under IFRS 9, a gain or loss is recognized in the income statement. The amount recognized is the difference between the original contractual cash flows and the modified cash flows (both discounted using the original effective interest rate). For WACKER, however, modifications of this kind are exceptional, and none has arisen to date.

A financial asset is considered impaired on purchase or origination if there is objective evidence of such an impairment on initial recognition. Defaulted assets of this kind are classified as purchased or credit-impaired (POCI) and are initially recognized at fair value (generally the purchase price, taking lifetime expected losses into account). WACKER does not have any receivables of this kind.

Derivative Financial Instruments

Derivative financial instruments are used solely for hedging purposes, the aim being to reduce both the Group's exposure to exchange-rate, interest-rate and commodity-price risks arising from operating activities and the resulting financing requirements. Derivative financial instruments are recognized as of the trade date. They are always recognized at fair value, irrespective of the purpose or intention for which they were concluded. Positive fair values are recognized as receivables and negative fair

values as liabilities. Differences resulting from fair value measurement are recognized in profit or loss separately from hedge accounting.

Where derivative financial instruments are used to hedge risks stemming from future cash flows or to hedge items in the statement of financial position, WACKER applies hedge accounting in accordance with the requirements of IAS 39. Changes in the market values of financial instruments used to hedge risks stemming from cash flows (cash flow hedges) are recognized in other equity items, taking deferred taxes into account, until the hedged item has been realized. The profit contribution of the hedging transaction is recognized in the statement of income under other operating income and expenses when the hedged item is realized. If such a derivative is sold or the hedging relationship is discontinued, the change in its value continues to be recognized in other equity items until the underlying transaction occurs. Ineffective parts of the hedging transaction are recognized immediately in profit or loss. Fair value hedges of recognized assets or liabilities and/or unrecognized fixed contractual obligations entail the recognition in profit or loss of market value changes for both the hedged item and the financial derivative (as the hedging instrument). At the moment, WACKER does not hedge any net investments in foreign operations.

Contracts concluded for the purpose of receiving or delivering non-financial goods according to WACKER's own needs are not recognized as derivatives, but rather as pending transactions.

Currency hedges for planned sales are recognized under other operating income and expenses, while interest rate hedges are recognized under net interest income. Currency hedges from intra-Group financing and foreign-exchange derivatives concluded to hedge financial liabilities in foreign currencies are shown under other financial result. Changes in the fair value of commodity hedges are recognized under cost of goods sold.

Inventories

Inventories are measured at cost using the average cost method. Lower net realizable values or prices as of the reporting date are taken into account by writing down inventories to their fair value less costs to sell. The cost of goods sold includes directly attributable costs, appropriate

portions of indirect material and labor costs, and straight-line depreciation. Costs for the company pension plan and voluntary social benefits are also included if they are production-related. Due to the relatively short-term nature of the production processes, financing costs are not included. For production-related reasons specific to the chemical industry, unfinished and finished goods are reported together. Raw materials and supplies also include spare parts for the day-to-day maintenance of production facilities. They are measured according to their periods of storage and potential usability.

Emissions certificates allotted free of charge are measured at a nominal value of zero. Emissions allowances acquired against payment are carried at cost. If the fair value is lower as of the reporting date, the carrying amount is reduced accordingly. Utilization is determined via the running average value of certificates, whether they were allotted free of charge or acquired against payment, and recognized pro rata as expenses under cost of goods sold on the basis of the quarterly emissions.

Income Tax Receivables and Other Non-Financial Assets

Income tax receivables and other non-financial assets are recognized at amortized cost. Changes in income tax receivables are posted under income taxes in the statement of income. Income tax receivables also contain uncertain tax positions. Noncurrent receivables that are non-interest-bearing or low-interest-bearing are discounted.

Provisions for Pensions and Similar Obligations

Defined-benefit pension commitments are measured in accordance with the projected unit credit method. This method takes account not only of pensions and entitlements to future pensions known as of the reporting date, but also of expected increases in salaries and pensions. Moreover, measurement is based on actuarial valuations and takes account of biometric and financial calculation principles. The fair value of the plan assets is subtracted from the present value of the pension obligations (defined benefit obligation, DBO), resulting in either a net liability or net asset of the defined benefit plans. The prior year's underlying DBO assumptions are used to determine the current service cost. The net interest cost in the fiscal year is determined by applying the discount rate set at the beginning of the year to the net liability calculated at the same time. The net interest

from the net pension liability is the difference between the calculated interest income from plan assets and the interest expense from the defined benefit obligation.

Remeasurements comprise actuarial gains and losses stemming from the difference between the estimate at the start of the period and actual developments during the period – or a newer estimate as of the reporting date – in relation to probable mortality rates, retirement and salary trends, or discount rates. Remeasurements are recognized directly in other comprehensive income. Similarly, differences between the interest income from plan assets calculated at the start of the period and the actual income from plan assets determined at the end of the period are recognized in other comprehensive income.

If the present value of a defined benefit obligation changes due to a plan amendment or curtailment, WACKER recognizes the resulting effect as past service cost. This is recognized in profit or loss as soon as it occurs. The profits and losses resulting from settlement are also recognized in the statement of income as soon as settlement takes place. Administrative expenses that are not related to management of plan assets are also recognized through profit or loss when incurred.

The expense from current and past service cost is allocated to the costs of the functional areas concerned. The net interest is shown under other financial result.

Provisions for phased early retirement and anniversaries are measured and recognized in accordance with actuarial appraisals. Owing to their structure, provisions for phased early retirement also constitute other noncurrent employee benefits in accordance with IAS 19, since they are linked to the rendering of future service. WACKER uses only a block model when structuring phased-early-retirement agreements. The corresponding provisions are recognized pro rata over the service period of the claim during the work phase.

Provisions

Provisions are recognized in the statement of financial position for present legal or constructive obligations toward third parties if an outflow of resources to settle these obligations is probable and its amount can be estimated reliably. The amounts recognized are those estimated to be required to cover the Group's future payment obligations, identifiable risks and contingencies.

Noncurrent provisions are measured at the discounted present value as of the reporting date. The discount rate applied is the market interest rate for risk-free investments with terms corresponding to the residual term of the obligation to be settled. Expected refunds, provided that they are sufficiently secure or legally enforceable, are not offset against provisions. Instead, they are capitalized as separate assets if their realization is virtually certain.

Provisions for restructuring costs are recognized if a detailed formal plan for restructuring has been drawn up and conveyed to the affected parties. Provisions for contingent losses arising from onerous contracts are recognized if the expected benefits to be derived from a contract are lower than the unavoidable costs of meeting the contractual obligations. Provisions for environmental protection are recognized if future cash outflows for complying with environmental legislation or for cleanup measures are likely, the costs can be estimated with sufficient accuracy and no future acquired benefit can be expected from the measures.

If an amended estimate results in a reduction in the scope of the obligations, a proportion of the provision is reversed and the earnings are allocated to the functional area originally charged with the expense when the provision was recognized.

Financial Liabilities and Other Financial Liabilities

On initial recognition, primary financial liabilities are measured at fair value less any transaction costs incurred. They are subsequently measured at amortized cost using the effective interest method. Derivative financial instruments are recognized at fair value. Lease liabilities are shown as financial liabilities at the present value of the future lease installments.

Contingent Liabilities/Contingent Assets

Contingent liabilities are potential obligations toward third parties or existing obligations for which an outflow of resources is unlikely or the amount of the obligation cannot be estimated with sufficient certainty. Contingent liabilities are not recognized in the statement of financial position.

Contingent assets are potential assets resulting from past events and whose existence will not be confirmed until the occurrence of one or more uncertain future events that are beyond the Group's influence.

01 Revenues from Contracts with Customers

Revenues from sales comprise those from contracts with customers and those from other sources:

Breakdown of Revenues

€ million	2019	2018
Revenues from contracts with customers		
Proceeds from deliveries of products and merchandise	4,804.1	4,847.2
Proceeds from other services	117.4	125.6
Total revenues from contracts with customers	4,921.5	4,972.8
Other revenues	6.1	6.0
Total revenues	4,927.6	4,978.8

As a general rule, WACKER recognizes sales at a point in time. WACKER's customary business model is to sell chemical products on the basis of binding individual orders from customers with or without framework agreements. Customer orders usually result in a specific performance obligation, which is satisfied at a certain point in time. Revenue is recognized when economic control has been transferred to the customer in accordance with Incoterms. WACKER POLYSILICON also uses medium- and long-term supply contracts for predefined purchase quantities. Here, too, revenues are recognized at a point in time.

In the case of customer-specific orders placed with WACKER BIOSOLUTIONS, sales are recognized over time. Its business model entails providing development services to the pharmaceutical industry under service contracts that are fulfilled and documented using milestones. The

right to payment arises when a milestone is reached. The division also manufactures customer-specific products in connection with supply contracts for drug-related intermediates. The right to payment in this case arises on acceptance by the customer. In certain cases, customers effect payment before a product is delivered or provision of a service commences. WACKER BIOSOLUTIONS also concludes medium-term contracts.

No long-term payment terms exist that could qualify as a financing component. As a general rule, the right to payment falls due within 30 days. Deliveries to customers with poor credit ratings are contingent upon advance payment or provision of a bank guarantee. The statutory warranty obligations for quality defects apply at WACKER, and exact specifications are defined in framework agreements with customers.

The majority of services are posted under WACKER's "Other" segment and comprise the supply of media to, and the administration of, chemical-industry parks on behalf of third-party companies, particularly at the site in Burghausen, Germany. Sales of salt and lye are another component of the revenues recognized under "Other." For both media supply and deliveries of salt and lye, revenues are recognized at a point in time, namely on delivery.

At WACKER, the sales revenue per segment corresponds to the Group's different product categories. The differences between chemical products, and also between market and customer groups, are evident in the segments. The particular region to which WACKER supplies its products also has a major impact on revenue.

The following table shows the breakdown of revenues:

Breakdown of Revenues

€ million	WACKER SILICONES		WACKER POLYMERS		WACKER BIOSOLUTIONS		WACKER POLYSILICON		Other/ consolidation		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Revenue by Region												
Europe	1,084.1	1,160.3	599.1	596.2	91.5	103.0	97.2	96.6	132.1	140.6	2,004.0	2,096.7
The Americas	468.8	459.9	345.0	334.3	92.3	70.8	12.4	12.1	1.0	1.1	919.5	878.2
Asia	742.4	717.2	297.3	277.9	50.4	42.6	670.3	714.4	3.4	4.8	1,763.8	1,756.9
Other regions	157.7	162.2	73.7	73.8	8.8	10.6	0.1	0.4	—	—	240.3	247.0
Total	2,453.0	2,499.6	1,315.1	1,282.2	243.0	227.0	780.0	823.5	136.5	146.5	4,927.6	4,978.8
Of which revenues outside the scope of IFRS 15	0.5	—	—	—	—	—	—	—	5.6	6.0	6.1	6.0
Time of revenue recognition												
Point in time	2,453.0	2,499.6	1,315.1	1,282.2	178.9	185.0	780.0	823.5	136.5	146.5	4,863.5	4,936.8
Over time	—	—	—	—	64.1	42.0	—	—	—	—	64.1	42.0
Total	2,453.0	2,499.6	1,315.1	1,282.2	243.0	227.0	780.0	823.5	136.5	146.5	4,927.6	4,978.8

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Trade receivables mainly comprise receivables from contracts with customers. See Note 10.

The contract liabilities recognized by WACKER in its statement of financial position include customers' advance payments for polysilicon deliveries, advance payments by customers of WACKER BIOSOLUTIONS and advance payments by customers to WACKER's "Other" segment for chemical-industry park infrastructure projects. When an individual polysilicon delivery is made to the customer, a specified share of the advance payment received by WACKER POLYSILICON is recognized as revenue, thereby reducing the liability. At WACKER BIOSOLUTIONS, customer advance payments are recognized upon the achievement of designated milestones.

In the "Other" segment, sales are realized over the contractual period agreed with the customer. Advance payments received mainly comprise those by customers for polysilicon deliveries taking place over periods of up to six years. The decline in advance payments received was due chiefly to the reduction in advance payments received for polysilicon deliveries.

In addition, discount accruals are recognized as contract liabilities. Discount accruals are contractually agreed discounts that are granted when certain thresholds are exceeded and that reduce sales in the current period. These accruals are estimated on the basis of past experience and usually settled in the following period at the latest.

Development of Contract Liabilities

€ million	Advance payments received	Discount accruals	Total
As of Jan. 1, 2019	135.8	15.1	150.9
Revenues recognized as advance payments in prior period	– 44.2	–	– 44.2
Revenues less discounts	–	14.6	14.6
Reversals recognized in income	– 26.3	– 4.6	– 30.9
Cash receipts (+)	65.6	–	65.6
Revenues recognized in 2019 from cash receipts (–)	– 23.6	–	– 23.6
Cash payments (–)	–	– 12.3	– 12.3
Exchange-rate differences	–	–	–
Change in the scope of consolidation	–	–	–
As of Dec. 31, 2019	107.3	12.8	120.1

€ million	Advance payments received	Discount accruals	Total
As of Jan. 1, 2018	174.3	16.5	190.8
Revenues recognized as advance payments in prior period	– 52.8	–	– 52.8
Revenues less discounts	–	13.8	13.8
Reversals recognized in income	– 30.4	– 2.2	– 32.6
Cash receipts (+)	65.7	–	65.7
Revenues recognized in 2018 from cash receipts (–)	– 20.9	–	– 20.9
Cash payments (–)	–	– 13.2	– 13.2
Exchange-rate differences	– 0.1	0.2	0.1
Change in the scope of consolidation	–	–	–
As of Dec. 31, 2018	135.8	15.1	150.9

Under multi-year framework agreements, WACKER guarantees some customers the availability of specific quantities per year. The actual quantities and prices are usually set for a maximum period of one year only and agreed in detailed negotiations that take place during the year. Minimum purchase quantities result in future performance obligations (orders on hand) with terms as shown in the following table:

Orders on Hand

€ million	Dec. 31, 2019	Dec. 31, 2018
Up to 2 years	750.0	1,015.0
Over 2 years to 3 years	389.5	483.8
Over 3 years to 4 years	313.9	176.7
Over 4 years to 5 years	312.8	106.2
Over 5 years	165.4	79.8
Total orders on hand	1,931.6	1,861.5

02 Cost of Goods Sold/Other Operating Income/
Other Operating Expenses

€ million	2019	2018
Cost of goods sold	– 4,124.4	– 4,104.1
Cost of goods sold includes the following reversals (+)/recognitions (–) of valuation allowances on inventories	– 46.3	– 91.3
Other operating income		
Income from currency transactions	29.0	41.3
Income from reversal of provisions	2.1	7.2
Insurance compensation	2.0	2.3
Income from reversal of valuation allowances on trade receivables	0.1	0.1
Income from disposal of property, plant and equipment and financial assets	0.2	0.9
Income from incentives/grants	1.7	0.9
Income from the termination of long-term supply contracts	19.3	–
Other operating income	42.6	43.3
Total	97.0	96.0
Other operating expenses		
Losses from currency transactions	– 41.7	– 48.2
Losses from valuation allowances on trade receivables	– 0.8	– 1.1
Losses from disposal of assets	– 6.2	– 4.6
Losses from impairment of fixed assets	– 764.8	– 1.4
Other operating expenses	– 43.9	– 29.7
Total	– 857.4	– 85.0

The cost of goods sold contains the insurance compensation of €112.5 million received in September for the damage at the Charleston site.

As a result of contract changes, WACKER POLYSILICON derecognized a solar customer's advance payments of €19.3 million and posted that amount under other operating income.

Due to low polysilicon prices and the continued absence of a solar-market recovery in Q4 2019, an impairment on noncurrent assets at WACKER POLYSILICON totaling €760 million was carried out as of December 31, 2019. The present value of the estimated future cash flows from use of the asset was compared with the carrying amounts. When estimating the future cash flows, WACKER made particular allowance for the fact that the future trend in solar-grade polysilicon prices is likely to be more subdued than in the prior year. The entire polysilicon segment is the cash-generating unit that forms the basis for the impairment test. Most of the impaired production facilities are located in the USA. A pretax interest rate of 8.4 percent was used for discounting. The impairment test determined a value in use of the associated assets of around €1.2 billion.

03 Income from Investments in Joint Ventures and Associates/Other Investment Income/Net Interest Income/Other Financial Result

€ million	2019	2018
Result from investments in joint ventures and associates	54.3	131.7
Of which share of income from joint ventures	1.8	1.8
Of which share of income from associates	52.5	129.9
Other investment expenses/ investment income	—	—
Total	54.3	131.7
Net interest income		
Interest income	10.6	8.0
Of which from financial instruments (FVOCI)	—	—
Of which from financial instruments (amortized cost)	7.9	8.0
Interest expenses	−20.3	−22.1
Of which from financial liabilities (excluding leases)	−16.7	−19.5
Total	−9.7	−14.1
Other financial result		
Interest effect of interest-bearing provisions/liabilities	−36.5	−35.4
Other financial expenses/income	−8.7	−15.7
Total	−45.2	−51.1

Income from investments in joint ventures and associates relates to the investments in Siltronic AG, and in companies in Asia and the United Kingdom. This income includes not only the attributable net results for the year, but also the effects of the elimination of attributable interim profits and losses, of measurement gains and other Group adjustments.

Borrowing costs of €2.5 million were capitalized in the reporting period, after €2.2 million a year earlier, resulting in a corresponding improvement in the net interest result. The average borrowing interest rate applied by the Group in the reporting year was 1.8 percent, compared with 2.0 percent the year before.

The interest effect of interest-bearing provisions includes net interest expenses from the unwinding of discounted pension obligations and calculated returns from plan assets totaling €35.0 million (versus €33.2 million in the prior year), and interest expenses and interest income from the discounting of provisions and unwinding of discounted provisions in the amount of €1.5 million (versus €2.3 million).

Other financial income and expenses result primarily from interest-rate effects in connection with financial transactions and their hedging, as well as expected interest on uncertain tax positions.

04 Income Taxes

This item comprises income taxes paid or owed in the individual countries as well as deferred taxes. In Germany, in addition to a corporate tax of 15.0 percent (versus 15.0 percent a year earlier), a solidarity surcharge of 5.5 percent applies (versus 5.5 percent). Trade income tax of 12.2 percent (versus 12.2 percent) must also be paid. It varies depending on the municipality in which a company is located.

As a result, deferred taxes of German companies are measured based on a total tax rate (including solidarity surcharge) of 28.0 percent (versus 28.0 percent in the prior year). The current taxes of foreign subsidiaries are determined according to domestic tax laws and rates valid in the country in which the respective company is based. As in the prior year, the respective current income tax rates for foreign companies applicable in each country ranged from 9.0 percent to 34.6 percent.

Deferred taxes on undistributed profits of subsidiaries were recognized only if distribution is planned. The amount of €362.0 million is available for distribution, compared with €359.5 million in the prior year.

Income taxes include current tax expenses of €0.7 million from prior years (after €0.8 million a year earlier) and deferred tax income of €23.7 million (after €0.0 million).

Reconciliation of Actual Tax Result

€ million	2019	2018
Current taxes, Germany	36.1	– 68.6
Current taxes, international	– 47.1	– 23.8
Current taxes	– 11.0	– 92.4
Deferred taxes, Germany	– 10.5	25.8
Deferred taxes, international	– 16.9	2.3
Deferred taxes	– 27.4	28.1
Income taxes	– 38.4	– 64.3
Derivation of the effective tax rate		
Income before taxes	– 591.2	324.4
Income tax rate for Wacker Chemie AG (%)	28.0	28.0
Expected tax income/expenses	165.6	– 90.8
Tax rate divergences	– 41.7	– 4.8
Tax effect of non-deductible expenses	– 35.3	– 31.4
Tax effect of tax-free income	3.4	4.2
Taxes relating to other periods (current earnings)	23.0	– 0.8
Effects of loss carryforwards and temporary differences	– 168.4	24.2
Group profit from investments in joint ventures and associates	15.1	36.9
Other differences	– 0.1	– 1.8
Total income tax	– 38.4	– 64.3
Effective tax rate (%)	– 6.5	19.8

Deferred tax expenses in the year under review contained an amount of €2.0 million (€7.6 million a year earlier) in previously unrecognized temporary differences and previously unrecognized tax losses from earlier periods.

Allocation of Deferred Taxes

€ million	2019		2018	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	10.4	5.2	15.3	5.4
Property, plant and equipment	87.5	23.8	87.9	24.3
Financial assets	—	0.1	—	0.5
Right-of-use assets	—	25.9	—	—
Sundry assets	32.3	2.9	29.5	1.5
Provisions for pensions	487.7	—	358.8	—
Other provisions	35.0	—	33.7	—
Lease liabilities	29.0	0.7	—	—
Other liabilities	5.9	5.5	14.5	7.8
Loss carryforwards	—	—	10.9	—
Setting off for companies with group taxation	— 3.8	— 3.8	—	—
Total	684.0	60.3	550.6	39.5
Setoffs	— 51.1	— 51.1	— 29.7	— 29.7
Amount recorded in Statement of Financial Position	632.9	9.2	520.9	9.8

The changes in deferred tax assets and liabilities of €27.4 million were recognized as expenses in the income statement (versus income of €28.1 million a year earlier), while €139.3 million (versus €40.6 million) was recognized directly in equity. The changes mainly comprise deferred tax assets from variations in actuarial gains and losses in relation to pension provisions.

The existing tax loss carryforwards can be utilized as follows:

€ million	2019	2018
Within 1 year	—	3.0
Within 2 years	—	1.1
Within 3 years	—	2.1
Within 4 years	—	—
Within 5 years or later	44.8	55.9
Total	44.8	62.1

The total loss carryforwards generated amounted to €44.8 million (versus €62.1 million in the previous year). As this entire amount is expected to be unrealizable (versus €14.2 million in the prior year), no deferred taxes were recognized. If they had been recognized, however, they would have amounted to €10.5 million (versus €3.5 million). Of the loss carryforwards that are not realizable for tax purposes, the amount of €22.3 million (versus €6.7 million) is unlimited as to time and amount. As of December 31, 2019, no deferred tax assets were recognized for tax-deductible temporary differences in the amount of €940.3 million (versus €191.7 million). This year-over-year increase was attributable to the fact that no temporary differences were recognized on the impairment of fixed assets.

05 Intangible Assets and Property, Plant and Equipment

€ million	Intangible assets	Land, buildings and similar rights	Technical equipment and machinery	Other equipment, factory and office equipment	Assets under construction	Property, plant and equipment	Of which assets from finance leases ¹
2019							
Balance as of Jan. 1, 2019	164.3	1,517.4	7,962.9	605.2	424.3	10,509.8	—
Additions	4.2	38.1	164.5	28.0	144.7	375.3	—
Disposals	–0.8	–1.9	–16.6	–15.1	–0.2	–33.8	—
Transfers	0.8	62.9	160.9	9.1	–333.0	–100.1 ²	—
Changes in the scope of consolidation	—	—	—	—	—	—	—
Exchange-rate differences	0.7	11.0	43.4	1.2	3.1	58.7	—
Gross carrying amount as of Dec. 31, 2019	169.2	1,627.5	8,315.1	628.4	238.9	10,809.9	—
Cumulative depreciation/amortization and impairments	–139.8	–987.4	–6,656.6	–522.0	0.1	–8,165.9	—
Changes in the scope of consolidation	—	—	—	—	—	—	—
Carrying amount as of Dec. 31, 2019	29.4	640.1	1,658.5	106.4	239.0	2,644.0	—
Depreciation/amortization	–13.0	–56.5	–416.6	–33.7	—	–506.8	—
Impairment losses	–1.3	–177.8	–577.3	–2.5	—	–757.6	—
2018							
Balance as of Jan. 1, 2018	152.8	1,448.2	7,681.5	578.2	240.7	9,948.6	98.6
Additions	2.2	18.9	103.9	32.8	303.0	458.6	—
Disposals	–3.1	–2.7	–53.3	–15.1	—	–71.1	—
Transfers	0.8	22.8	91.5	6.5	–121.7	–0.9	—
Changes in the scope of consolidation	10.0	6.8	46.8	1.0	—	54.6	—
Exchange-rate differences	1.6	23.4	92.5	1.8	2.3	120.0	0.7
Gross carrying amount as of Dec. 31, 2018	164.3	1,517.4	7,962.9	605.2	424.3	10,509.8	99.3
Cumulative depreciation/amortization and impairments	–126.0	–750.0	–5,734.8	–499.6	0.1	–6,984.3	–76.9
Changes in the scope of consolidation	–1.2	–2.2	–32.7	–0.8	—	–35.7	—
Carrying amount as of Dec. 31, 2018	38.3	767.4	2,228.1	105.6	424.4	3,525.5	22.4
Depreciation/amortization	–13.4	–58.5	–434.9	–33.6	—	–527.0	–4.9

¹ Eliminated due to application of IFRS 16 as of Jan. 1, 2019

² Transfer of right-of-use assets in accordance with IFRS 16

Intangible assets include industrial property rights, software and similar rights, and other assets that are acquired against payment. Acquisitions result in technologies, customer bases and order backlogs acquired against payment, which are amortized over a period of 3 to 9 years.

The acquisition costs of property, plant and equipment were reduced by investment grants totaling €317.0 million (compared with €315.8 million in the previous year).

In the reporting year, borrowing costs of €2.5 million (€2.2 million in the prior year) were capitalized as part of the acquisition costs of qualifying assets. The average financing cost rate was 1.8 percent (2.0 percent a year earlier). Until December 31, 2018, property, plant and equipment also included technical machinery and other equipment that underlaid an embedded finance lease. Upon initial application of IFRS 16 as of January 1, 2019, this machinery and equipment was recognized as right-of-use assets in the amount of €22.4 million.

Impairment losses relate to the impairment of fixed assets of WACKER POLYSILICON.

06 Leases

Right-of-Use Assets

The following table shows assets that are accounted for as right-of-use assets under a lease agreement.

€ million	Land and buildings	Technical equipment and machinery	Other equipment, factory and office equipment	Right-of-use assets
2019				
Balance as of Jan. 1, 2019	111.2	2.2	17.7	131.1
Additions	5.0	1.1	4.9	11.0
Disposals	-0.9	-25.3	-0.1	-26.3
Transfers	-	99.3 ¹	-	99.3
Changes in the scope of consolidation	-	-	-	-
Exchange-rate differences	0.2	-0.2	-	-
Gross carrying amount as of Dec. 31, 2019	115.5	77.1	22.5	215.1
Cumulative depreciation/amortization and impairments	-18.8	-67.5	-9.0	-95.3
Changes in the scope of consolidation	-	-	-	-
Carrying amount as of Dec. 31, 2019	96.7	9.6	13.5	119.8
Depreciation/amortization	-19.1	-6.3	-9.1	-34.5
Impairment losses	-	-5.9	-	-5.9

¹ Transfer of finance lease assets in accordance with IFRS 16

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As regards land and buildings, WACKER rents properties, including office space and storage areas. These properties mainly comprise the land and buildings of WACKER's Munich headquarters, which are rented from the company pension fund (Pensionskasse VVaG). Right-of-use assets primarily concern technical machinery and other equipment such as rented operating equipment and infrastructure facilities. Rented factory and office equipment includes vehicles and transportation equipment such as tanks and railcars.

Longer-term rental agreements exist, especially for property and operating equipment. Leases may contain extension and termination options. These lease provisions are individually negotiated and contain a wide range of different terms and conditions. Extension options can lead to future cash outflows. As of the reporting date, no material extension options existed that were not recognized in the statement of financial position.

The impairment losses relate to right-of-use assets of WACKER POLYSILICON, which were impaired after an impairment test.

€ million	2019			2018		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Lease liabilities	137.8	111.4	26.4	26.3	22.2	4.1

Lease Liabilities

Additional lease liabilities were recognized upon initial application of IFRS 16 on January 1, 2019. In the preceding year, lease liabilities of €26.3 million were recognized pursuant to IAS 17.

In 2019, lease liabilities of €34.8 million were repaid and lease-related interest of €3.6 million was paid (see also Note 21 “Notes to the Statement of Cash Flows”).

As of the reporting date, future cash outflows totaled €171.1 million. The following schedule for lease payments applies.

€ million	2019
Lease payment within 1 year	– 31.5
Lease payment between 1 and 5 years	– 63.2
Lease payment over more than 5 years	– 76.4
Total	– 171.1

The statement of income includes the following expenses and income in relation to leases.

€ million	2019
Sales	
Income from operating leases	–
Income from subleases	1.0
Income from sale and leaseback transactions	–
Functional costs	
Expenses from short-term leases	– 5.6
Expenses from leases of low-value assets	– 4.1
Expenses from variable lease payments	–
Other expenses from leases (incidental costs)	–
Amortization	
Amortization of right-of-use assets	– 34.5
Impairments of right-of-use assets	– 5.9
Financial result	
Interest expenses from lease liabilities	– 3.6
Income from foreign currency translation of lease liabilities	–
Expenses from foreign currency translation of lease liabilities	–

WACKER as a Lessor

WACKER acts as a lessor in connection with the sublease for its Munich headquarters. This sublease is recognized both as an operating lease of €7.7 million and as a finance lease of €1.4 million. As regards the operating lease, the right-of-use assets from the sublease are recognized in accordance with IAS 40. WACKER bears the rental risk for the rented premises. Gains from recognition of the finance lease were posted in equity as an adjustment effect from the changeover to IFRS 16.

07 Investment Property

Wacker Chemie AG owns real estate at its production site in Cologne, Germany. This comprises land and infrastructure facilities (for energy, wastewater, etc.). The land is rented out or leased on a long-term basis. These properties and the associated infrastructure in Cologne are operated, maintained and looked after by third parties, who charge any costs incurred directly to the tenants or leaseholders. WACKER has undertaken to carry out future maintenance measures to the extent necessary in the next few years. WACKER has also entered into long-term sublease agreements for parts of its Munich headquarters. The associated right-of-use assets in the amount of €7.7 million were recognized as investment property as of January 1, 2019.

€ million	2019	2018
Jan. 1, 2019, as reported	9.5	—
Effects from initial application of IFRS 16	7.7	—
Jan. 1, 2019	17.2	10.8
Additions	—	0.2
Disposals	—	–1.5
Gross carrying amount as of Dec. 31, 2019	17.2	9.5
Cumulative amortization	–8.6	–8.0
Carrying amount as of Dec. 31, 2019	8.6	1.5
Fair value	24.3	17.2
Rental income	1.9	0.7
Costs	–0.9	–0.2

The fair value of property at the production site in Cologne is based on an opinion of an external expert and is updated periodically, most recently in 2018. The fair value was calculated as the market value based on the potential proceeds from liquidation of the business. Investment property measured at fair value is allocated to Level 2 of the fair value hierarchy. The residual carrying amount relates to the land. The valuation process has not been changed since the previous valuation date.

The fair value of the right-of-use asset for the Munich headquarters is based on the discounted rental payments over the residual term of the lease and corresponds to the carrying amount.

08 Investments in Joint Ventures and Associates Accounted for Using the Equity Method

The Group applies the equity method to account for joint ventures and associates. The equity-accounted investment in Siltronic AG and its subsidiaries is of a material nature.

The Siltronic Group is one of the world's leading producers of silicon wafers for the semiconductor industry. WACKER supplies Siltronic with polysilicon, the key base material for producing silicon wafers.

Material Investments in Associates

Company's name and registered office:
Siltronic AG, Munich, Germany, and its subsidiaries

	2019	2018
Ownership interest (%)	30.83	30.83
Proportion of voting rights (%)	30.83	30.83
Total non-controlling interests (shares)	9,250,000	9,250,000
Xetra closing price at year-end (€)	89.72	72.20
Market capitalization of shares (€ million)	829.9	667.9
Dividends received (€ million)	46.3	23.1

Summarized Financial Information on Siltronic AG and Its Subsidiaries¹ on a 100-Percent Basis

€ million	2019	2018
Current assets	864.7	1,078.9
Noncurrent assets excluding goodwill	1,432.9	1,174.3
Current liabilities	243.5	277.9
Noncurrent liabilities	857.9	736.8
Net assets (100%)	1,196.2	1,238.5
Less share of non-controlling interests	–76.4	–41.2
Group's share of net assets	345.3	369.2
Elimination of unrealized interim profits and losses	0.6	1.7
Goodwill	245.7	245.7
Carrying amount of share in associate	591.6	616.6
Sales	1,270.4	1,456.7
Group net income for the year	171.8	323.2
Other comprehensive income	–97.6	–48.3
Total	74.2	274.9

¹ Consolidated financial statements of Siltronic AG in accordance with IFRS

Reconciliation of the Equity Carrying Amount

€ million	2019	2018
Carrying amount of equity-accounted investments		
At the beginning of the year	616.6	554.7
Pro rata net income for the year	52.5	99.5
Other changes recognized in profit or loss	-1.1	0.4
Change recognized in profit or loss	51.4	99.9
Dividends	-46.3	-23.1
Change in other equity	-30.1	-14.9
At the end of the year	591.6	616.6

Taken individually, the remaining joint ventures and associates are not material to the Group's earnings, net assets or financial position. The following table shows the reporting-period change in the total carrying amounts of investments:

Summarized Pro Rata Financial Information for Joint Ventures That Are Immaterial Individually

€ million	2019	2018
Carrying amount of equity-accounted investments		
At the beginning of the year	11.6	9.9
Pro rata net income for the year	1.8	1.8
Share of change in other equity	0.1	-0.1
Overall result of the companies	1.9	1.7
Dividends	-2.6	-
Change in the scope of consolidation	-	-
At the end of the year	10.9	11.6

Summarized Pro Rata Financial Information for Associates That Are Immaterial Individually

€ million	2019	2018
Carrying amount of equity-accounted investments		
At the beginning of the year	30.1	-
Pro rata net income for the year	1.1	0.4
Share of change in other equity	0.4	0.1
Overall result of the companies	1.5	0.5
Impairment loss reversal of equity-accounted investments	-	29.6
Addition	6.3	-
At the end of the year	37.9	30.1

If shareholders have granted loans to joint ventures or associates, the repayment of these loans has priority over dividend distribution.

Deviations between the share of net income and the result from investments in joint ventures and associates, and between the share of equity and the carrying amount of investments in joint ventures and associates accounted for using the equity method, are primarily the result of fair value adjustments and consolidation measures.

Nexxon Ltd. was included in the Group's financial statements for the first time in 2019 using the equity method. WACKER acquired a 24.99-percent stake in this company on September 11, 2019. For organizational reasons, WACKER includes Nexxon's pro rata result in its consolidated financial statements with a time lag of three months. In 2018, an impairment loss on WACKER's equity-accounted investment in the siloxane joint venture with DowDupont in China was reversed.

The following shows the key figures for companies accounted for using the equity method.

€ million	2019		2018	
	Total	Attributable to WACKER	Total	Attributable to WACKER
Key Figures for Joint Ventures				
Net income for the year	3.6	1.8	3.6	1.8
Other comprehensive income	0.2	0.1	-0.2	-0.1
Total	3.8	1.9	3.4	1.7
Key Figures for Associates				
Net income for the year	176.2	53.6	324.8	99.9
Other comprehensive income	-96.0	-29.7	-47.9	-14.8
Total	80.2	23.9	276.9	85.1

09 Inventories

€ million	2019	2018
Raw materials and supplies	313.4	315.5
Unfinished and finished products, merchandise	665.3	691.8
Services not charged	1.1	3.4
Total	979.8	1,010.7
Of which recorded at net realizable value if lower	222.4	205.6

Cost of goods sold includes inventory expenses totaling €4.1 billion (after €4.1 billion a year earlier). Valuation allowances recognized as expenses increased by €46.3 million in the reporting period. In the previous year, they had increased by €91.3 million.

10 Financial and Non-Financial Assets/Receivables

€ million	2019			2018		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Trade receivables	631.5	—	631.5	681.9	—	681.9
Investments	11.6	11.6	—	11.3	11.3	—
Loans to associates	91.1	40.3	50.8	89.6	89.6	—
Receivables from associates	0.4	—	0.4	1.3	—	1.3
Loan and interest receivables	0.4	—	0.4	—	—	—
Derivative financial instruments	5.5	1.9	3.6	10.7	4.7	6.0
Receivables from suppliers	21.9	—	21.9	21.0	—	21.0
Deposits	3.1	2.7	0.4	3.3	2.7	0.6
Restricted cash and cash equivalents	1.1	—	1.1	0.8	—	0.8
Sundry assets	3.6	2.3	1.3	1.4	1.0	0.4
Other financial assets	138.7	58.8	79.9	139.4	109.3	30.1
Prepaid expenses	8.1	0.6	7.5	8.2	0.9	7.3
Plan assets for phased early retirement	—	—	—	0.2	—	0.2
Advance payments made	9.5	3.6	5.9	16.9	3.6	13.3
Other tax receivables	48.4	4.9	43.5	60.3	0.8	59.5
Sundry assets	6.1	—	6.1	5.1	—	5.1
Other non-financial assets	72.1	9.1	63.0	90.7	5.3	85.4
Income tax receivables	48.6	—	48.6	64.0	—	64.0

Trade receivables mainly comprise receivables from contracts with customers.

Receivables are shown at amortized cost, which corresponds to their market value. Adequate loss allowances have been established to cover default risks – to the extent that these are not covered by insurance, bank guarantees or advance payments received.

WACKER takes the simplified approach when calculating impairments of trade receivables in accordance with IFRS 9. Under this approach, the loss allowance is determined immediately upon origination on the basis of the lifetime expected credit losses. Further changes in the credit risk (expected credit loss or ECL) do not need to be tracked. The expected credit losses are determined using a provision matrix, which defines fixed default rates per past-due category on the basis of the risk classes of the past-due receivables.

The following table shows a breakdown of expected impairments of trade receivables:

Development of Past-Due Trade Receivables as of Dec. 31, 2019

€ million	Carrying amount	Loss allowance	Expected loss rate (%)
Not past due	575.7	– 0.2	– 0.02
Up to 30 days past due	47.7	– 0.6	– 1.23
31 to 60 days past due	2.9	– 0.3	– 8.57
61 to 90 days past due	2.7	– 0.1	– 9.68
Individually impaired receivables	2.5	– 2.1	– 60.61
Total as of Dec. 31, 2019	631.5	– 3.3	– 0.52

Development of Past-Due Trade Receivables as of Dec. 31, 2018

€ million	Carrying amount	Loss allowance	Expected loss rate (%)
Not past due	609.3	– 0.7	– 0.11
Up to 30 days past due	60.8	– 0.7	– 1.14
31 to 60 days past due	8.4	– 0.2	– 2.33
61 to 90 days past due	2.2	– 0.2	– 8.33
Individually impaired receivables	1.2	– 1.5	– 55.56
Total as of Dec. 31, 2018	681.9	– 3.3	– 0.48

The lifetime expected credit losses reflect all possible loss events that could occur until the expected maturity of the financial asset. WACKER determines the expected credit loss by taking into account the entire contractual period during which the Group is exposed to the credit risk.

WACKER applies three key parameters to assess the expected credit loss for noncurrent and current interest-bearing receivables (loans and fixed-interest securities): the probability of default (PD), the loss given default (LGD) and the estimated exposure at default (EAD). In the case of loan receivables and fixed-interest securities, WACKER determines a risk provision equivalent to the 12-month expected credit losses, as these are financial instruments with a low credit risk.

Valuation allowances and past-due debts developed as follows:

Development of Loss Allowances for Trade Receivables

€ million	2019	2018
As of Jan. 1 (as per IAS 39)	–	3.4
Effects of first-time application of new accounting standards	–	– 0.1
Opening balance of loss allowance as of Jan. 1 (as per IFRS 9)	3.3	3.3
Increase/decrease in loss allowances recognized in profit or loss	–	0.1
Receivables impaired as uncollectible	–	–
Change in scope of consolidation	–	–
Exchange-rate differences	–	– 0.1
As of Dec. 31	3.3	3.3

The loss allowances relate exclusively to revenue from contracts with customers. There was no material credit risk as of December 31, 2019.

We continuously monitor the creditworthiness of our debtors to assess the recoverability of the corresponding receivables; where appropriate, we take out credit default insurance. In addition, customers make advance payments and provide bank guarantees. The maximum default risk is equal to the carrying amount of the uninsured receivables. The company has no loans or receivables that were renegotiated to prevent an overdue debt or possible loss allowances. Based on past experience and on the conditions prevailing as of the reporting date, there are no restrictions with regard to credit quality.

11 Cash and Cash Equivalents/Securities

€ million	2019	2018
Securities and fixed-term deposits¹	109.4	46.4
Of which current	109.4	42.0
Of which noncurrent	—	4.4
Cash and cash equivalents		
Cash equivalents	295.1	141.2
Bank deposits, cash on hand	140.7	199.9
Total	435.8	341.1

¹ The securities mainly consist of a fund and term deposits of various issuers, and are predominantly classified as FVTPL.

Bank deposits and cash on hand are shown at their nominal amounts. Cash equivalents comprise fixed-term deposits and commercial paper (from issuers with first-class credit standing) classified as “held to collect, amortized cost.” The general impairment model is applied to bank deposits and fixed-term deposits. These are classified as financial instruments with a low value risk, given that WACKER enters into banking relationships only with investment-grade counterparties. In the case of banks covered by Germany’s Deposit Protection Fund, no impairments are determined as these deposits are secured via the Fund. Any impairments that arise are negligible. None of WACKER’s cash funds are subject to currency export restrictions.

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Securities include fixed-term deposits assigned to the “held-to-collect and for sale” category. The IFRS 9 impairment model is applied to these financial instruments as well. As WACKER’s investment regulation states that the company can purchase only investment-grade securities, the impairment risk is low. Fund shares assigned to the “trading/FVTPL” category are not covered by the IFRS 9 impairment model.

**12 Equity/Non-Controlling Interests/
Capital Structure Management**

The subscribed capital (capital stock) of Wacker Chemie AG amounts to €260,763,000 and comprises 52,152,600 no-par-value shares (total). This corresponds to a notional par value of €5 per share. All of the shares are common shares – no other share classes have been issued. At the reporting date, no capital had been authorized for the issue of new shares. The Executive Board is authorized – in compliance with the provisions of Section 71 (1) No. 8 of the German Stock Corporation Act – to acquire treasury shares totaling a maximum of 10 percent of capital stock.

The following table shows the development in the year under review and in the prior year:

Units	2019	2018
Shares outstanding at the start of the year	49,677,983	49,677,983
Shares outstanding at the end of the year	49,677,983	49,677,983
Treasury shares in portfolio	2,474,617	2,474,617
Total shares	52,152,600	52,152,600

For more information on Wacker Chemie AG’s shareholder structure, please refer to “Related Party Disclosures.”

» See Note 24

Capital reserves include the amounts generated in previous years through the issue of shares above their nominal values, as well as other contributions made to equity.

Retained earnings include the amounts of accrued reserves generated at Wacker Chemie AG in previous years, transfers from the Group’s earnings for the year, the earnings of the consolidated companies less amounts due to non-controlling interests, changes to consolidated items affecting income, and changes in the scope of consolidation.

Other equity items (which are recognized directly in equity) include the differences arising from the currency translation of the financial statements of foreign subsidiaries using reporting currencies other than the euro, and the effects of the valuation of financial instruments, cash flow hedge accounting, pensions and effects of net investments in foreign operations.

The net result attributable to non-controlling interests is made up of the following profits and losses:

€ million	2019	2018
Profits	13.0	14.0
Losses	—	—
Net result attributable to non-controlling interests	13.0	14.0

Non-controlling interests in equity primarily comprised the following companies:

Non-Controlling Interests

€ million	2019	2018
Wacker Asahi Kasei Silicone Co. Ltd., Tokyo, Japan	8.7	10.2
Wacker Metroark Chemicals Pvt. Ltd., Parganas, India	37.1	34.9
Wacker Chemicals Fumed Silica (ZJG) Holding Co. Private Ltd., Singapore ¹	16.3	13.2
Total	62.1	58.3

¹ Including subsidiaries

The voting rights of non-controlling interests correspond to their equity share.

For further information on individual companies, please refer to the Breakdown of Shareholdings section.

» See Note 23

Information on Capital Management

The goal of the WACKER Group's capital management policy is to ensure that the company remains a going concern in the long term and to generate an appropriate return on capital employed for the company's shareholders. The capital management instruments employed to achieve this goal include dividend payments to shareholders and stock buybacks.

In managing its capital, Wacker Chemie AG complies with the legal stipulations on capital maintenance. The company's Articles of Association contain no requirements regarding capital. No special capital terminology is used. The Group's general dividend policy is to distribute about 50 percent of Group net income to shareholders, provided the business situation permits and the committees responsible agree.

Above and beyond this, WACKER actively manages its debt capital with the aim of achieving a balanced financing portfolio, a diversified maturities profile and ample liquidity reserves. In addition, our corporate financial structures are designed to keep WACKER's credit rating at least in the investment-grade range. In accordance with our policy of value-based management, net financial debt functions as a supplementary financial performance indicator.

» See the Management Processes and Net Assets sections of the Group management report.

As of the reporting date, the WACKER Group's capital structure was as follows:

Capital Structure

€ million	2019	2018
Equity attributable to Wacker Chemie AG shareholders	1,966.9	3,087.2
Share of total capital (%)	61.0	75.6
Noncurrent financial liabilities	1,049.0	894.7
Current financial liabilities	209.9	102.5
Total	1,258.9	997.2
Share of total capital (%)	39.0	24.4
Total capital	3,225.8	4,084.4

13 Provisions for Pensions

Various post-employment pension plans are available to WACKER Group employees. They depend on the legal, economic and fiscal conditions prevailing in the respective countries. These pension plans generally take account of the employees' length of service and salary levels.

Company pension plans make a distinction between defined contribution and defined benefit plans. Defined contribution plans lead to no further obligation for the company beyond paying contributions to special-purpose funds. WACKER has both defined contribution and defined benefit plans, which are financed in part by Pensionskasse der Wacker Chemie VVaG or by funds. Pension obligations result from defined benefit plans in the form of entitlements to future pensions and ongoing payments for eligible active and former employees of the WACKER Group and their surviving dependents. The various pension plans generally guarantee employees either a life-long pension on the basis of their average salary during employment at WACKER (career average plan) or lump-sum payments.

The Group maintains the following retirement benefit plans:

Retirement Benefits Supplied by the Company Pension Fund

Employees at Wacker Chemie AG and other German Group companies are granted a basic pension model via Pensionskasse der Wacker Chemie VVaG, a legally independent German pension fund. The pension fund is financed by member and company contributions. The payments comprise retirement, disability and surviving dependents' benefits.

The pension fund is a small mutual insurance company within the meaning of Section 210 of the German Insurance Supervision Act and is regulated by Section 233 (1) of this act. It is thus subject to the regulations that apply to German insurers and is monitored by the Federal Financial Supervisory Authority (BaFin). Statutory minimum financing obligations apply.

Employees who joined the pension plan before the end of 2004 receive guaranteed payments based on a defined benefit amount, which is to be taken into consideration in determining pension obligations. The pension payment is the same, regardless both of the employee's age when paying contributions and of the interest generated from assets. A new basic-pension model applies to employees who joined the pension fund after 2004. Under that model, the benefits are based on guaranteed interest rates and the benefit amount depends on the age at which the employee pays contributions. Annual profit shares can increase the future payment. In addition, employees in Germany may make

voluntary payments to the "PK+" supplementary insurance fund of Pensionskasse der Wacker Chemie VVaG. The main items paid into the voluntary supplementary insurance fund comprise contributions in connection with retirement benefit plans governed by the collective bargaining agreements and concerning one-off payments and retirement benefits, and "Working Life and Demography."

Direct Commitments of the WACKER Group

In addition to the pension fund commitments, employees in Germany receive direct commitments in the form of a supplementary pension. The supplementary pension covers that part of an employee's salary that exceeds the pension insurance contribution assessment ceiling. Employees who joined the company before the end of 2004 – and their surviving dependents – receive a pension. The amount of that pension depends on the average salary earned during the period of employment with WACKER (career average plan). For employees who joined the plan as of 2005, a certain percentage of the salary exceeding the pension insurance contribution assessment ceiling is paid in. The resulting capital accrues interest. The benefits may be paid out as a life-long pension or, in the case of commitments made from 2005 onward, as a lump sum. Employees and their surviving dependents are eligible to receive benefits. Employee entitlements are included when measuring pension obligations, regardless of whether the employees joined the company before the end of 2004 or after the beginning of 2005.

Executive Board members are granted individual pension commitments. For more information on Executive Board member pension plans, please refer to the Compensation Report.

➤ See page 178

Employees in Germany with salaries above the standard pay scale may pay into an employee-financed pension plan (deferred compensation). This plan affords employees the option of converting part of their future salary claims into equivalent pension capital. Pension capital accrues interest based on the date the pension plan was entered into (commitment): at either 7 percent (1996–2001), 6 percent (2002–2010) or 5 percent (2011–2013). Plans bearing 7 percent or 6 percent interest may be drawn in the form of either a pension or a lump sum. Plans bearing 5 percent interest are paid out exclusively in lump-sum form. Since 2015, management employees have been able to contribute a portion of their salary to an employee-financed pension plan with a variable interest rate. The variable interest rate is linked to the five-year running yield on German bearer bonds and amounts to at least 2.5 percent and at most 5 percent. Disbursement is as a lump sum only. Pension commitments made before or on December 31, 2000 are

measured (in accordance with the projected unit credit method) at the present value of years' service to date or years served to retirement, whereas any commitments made on or after January 1, 2001 are measured at the present value of the defined benefit obligation or at the equivalent of the accumulated capital.

Pension entitlements in Germany are protected against insolvency by the pension guarantee fund (Pensionsversicherungsverein a. G.). This insolvency insurance is capped. No statutory minimum financing obligations apply.

Pension Commitments outside of Germany

Various pension plans are available to employees of foreign subsidiaries, subject to the statutory provisions applicable in the respective countries. Of these commitments, only the us pension plans are material to the Group.

In the us, defined benefit plans exist for employees of WACKER Chemicals Corporation, Adrian. These plans were closed for new applications effective December 31, 2003 and remain in force for legacy policies only. Retirement benefits are paid out from age 65 in the form of a monthly pension and are based on the last average salary paid. Special rules apply to early retirement as of age 55 depending on the employee's years of service. In view of their pension-like character, obligations relating to medical care for retired employees and severance payments are likewise included under pension provisions. New employees in the USA are offered only defined contribution plans.

The present value of defined benefit plans may be reconciled with the provisions recognized in the balance sheet as follows:

Net Liability of Defined Benefit Obligations

€ million	Dec. 31, 2019			Dec. 31, 2018		
	Germany	International	Total	Germany	International	Total
Present value of the at least partially fund-financed defined benefit obligations	2,936.0	110.6	3,046.6	2,446.0	96.1	2,542.1
Fair value of plan assets	-1,854.0	-101.8	-1,955.8	-1,682.1	-84.4	-1,766.5
Funded status	1,082.0	8.8	1,090.8	763.9	11.7	775.6
Present value of unfunded defined benefit obligations	1,170.4	14.1	1,184.5	1,006.3	13.1	1,019.4
Provisions for pensions and similar obligations	2,252.4	22.9	2,275.3	1,770.2	24.8	1,795.0

Due to the prevailing low interest rates, Wacker Chemie AG and WACKER's other German subsidiaries made a special payment of €70.7 million to the company pension fund (Pensionskasse der Wacker Chemie VVaG) in 2019. This one-off payment triggered a substantial increase in the item "Contributions by Employer."

Changes in the Net Liability of Defined Benefit Obligations

€ million	Present value of pension plan obligations	Market value of plan assets	Total
As of Jan. 1, 2018	3,329.7	-1,711.4	1,618.3
Current service cost	74.0	—	74.0
Interest expense/(income)	70.4	-37.2	33.2
Past service cost	-0.2	—	-0.2
Remeasurements			
Gains (-)/losses (+) from plan assets without amounts already recognized in interest income	—	-4.6	-4.6
Gains (-)/losses (+) from changes in demographic assumptions	62.6	—	62.6
Gains (-)/losses (+) from changes in financial assumptions	67.6	—	67.6
Gains (-)/losses (+) from experience adjustments	9.2	—	9.2
Effects of exchange-rate differences	4.9	-3.9	1.0
Contributions by Employer	—	-37.5	-37.5
Pension plan beneficiaries	21.1	-21.1	—
Pension payments	-77.8	49.2	-28.6
As of Dec. 31, 2018	3,561.5	-1,766.5	1,795.0
Current service cost	81.7	—	81.7
Interest expense/(income)	71.9	-36.9	35.0
Past service cost	-0.3	—	-0.3
Remeasurements			
Gains (-)/losses (+) from plan assets without amounts already recognized in interest income	—	-67.9	-67.9
Gains (-)/losses (+) from changes in demographic assumptions	0.9	—	0.9
Gains (-)/losses (+) from changes in financial assumptions	583.0	—	583.0
Gains (-)/losses (+) from experience adjustments	-13.9	—	-13.9
Effects of exchange-rate differences	2.0	-1.2	0.8
Contributions by Employer	—	-109.7	-109.7
Pension plan beneficiaries	23.1	-23.1	—
Transfers	0.8	—	0.8
Pension payments	-79.6	49.5	-30.1
As of Dec. 31, 2019	4,231.1	-1,955.8	2,275.3

Assumptions

The pension obligations are calculated by taking account of company-specific and country-specific biometric calculation principles and parameters. The calculations are based on actuarial reports that factor in the following parameters:

Actuarial Assumptions

%	2019	2018
Germany		
Discount rate	1.25	1.98
Salary growth rate	2.50	2.50
Pension growth rate ¹		
Basic and supplementary pension	1.8/1.0	1.8/1.0
Deferred compensation	2.5/1.0	2.5/1.0
USA		
Discount rate	3.16	4.12
Salary growth rate	3.00	3.00

¹ Varies according to the date on which the employee joined the company and/or the effective date of the different plan generations.

The life-expectancy calculations for Germany are based on Heubeck AG's "Richttafeln 2018G" generation tables. These take into account the latest life expectancy rates and socio-economic factors, and currently offer the best

Sensitivity Analysis

Effect on defined benefit obligation	Dec. 31, 2019		Dec. 31, 2018	
	Defined benefit obligation in € million	Change (%)	Defined benefit obligation in € million	Change (%)
Present value of pension obligations as of the reporting date	4,231.1		3,561.5	
Present value of pension obligations if				
the discount rate increases by 0.5 percentage points	3,820.2	-9.7	3,232.6	-9.2
the discount rate decreases by 0.5 percentage points	4,710.7	11.3	3,942.3	10.7
salaries increase by 0.5 percentage points	4,264.5	0.8	3,593.2	0.9
salaries decrease by 0.5 percentage points	4,200.4	-0.7	3,533.3	-0.8
future pension increases are 0.25 percentage points higher	4,363.5	3.1	3,668.1	3.0
future pension increases are 0.25 percentage points lower	4,105.4	-3.0	3,460.0	-2.8
life expectancy goes up by one year	4,390.5	3.8	3,685.7	3.5

estimate of life expectancy. The mortality tables used in the USA are regularly updated to take account of the latest mortality data.

The discount rates and salary increase rates used in calculating the pension obligation were determined in line with the general economic conditions and in accordance with uniform standards. The discount rate is based on a yield curve derived from the yields of country-specific, high-grade, fixed-interest corporate bonds with maturities corresponding to the pension obligations. The discount rate takes account of the WACKER-specific, expected future cash flows for these obligations.

Sensitivity Analysis

The following sensitivity analysis involves an adjustment of only one assumption – i.e. the other assumptions remain unchanged from the original valuation, so that the sensitivity of each individual assumption can be observed in isolation. As a consequence, possible correlation effects between the individual assumptions cannot be taken into consideration.

The following table shows the possible changes in the present value of pension obligations resulting from changes in the basic actuarial assumptions.

Composition of Plan Assets

Pensionskasse der Wacker Chemie VVaG invests plan assets in accordance with statutory requirements and the terms of its by-laws. The company pension fund invests nearly half of its assets in equity funds and fixed-income funds. The other half is invested directly in promissory notes (German Schuldscheine), real estate, real estate loans, private debt and private equity. The remainder is

kept as liquid assets. The investment strategy follows the investment guideline set down by the board of the pension fund.

The plan assets of pension funds set up in the us are invested mainly in stocks and funds in accordance with the applicable investment rules. The composition of plan assets for the Group is shown in the following table:

Composition of Plan Assets

€ million	Dec. 31, 2019			Dec. 31, 2018		
	Quoted market prices in an active market	No quoted market prices in an active market	Total	Quoted market prices in an active market	No quoted market prices in an active market	Total
Real estate	—	335.2	335.2	—	334.7	334.7
Loans/fixed-interest securities	659.1	305.6	964.7	607.3	287.4	894.7
Shares/funds	278.5	282.3	560.8	238.3	225.3	463.6
Cash and cash equivalents	—	95.1	95.1	—	73.5	73.5
Total	937.6	1,018.2	1,955.8	845.6	920.9	1,766.5

The WACKER Group was utilizing €105.2 million of plan assets for its own purposes as of December 31, 2019, compared with €105.2 million in the prior year. These assets comprise the real estate used by Wacker Chemie AG for its headquarters in Munich.

The defined benefit plans in the us are subject not only to actuarial risks, but also to market-price fluctuation risks – because plan assets there are invested in stocks and funds.

Applicable statutes and by-laws require WACKER to reduce under-funding of pension plans by increasing the amount of company contributions in cash.

Risks arise in particular in connection with the life expectancy of the beneficiaries, the interest rate guarantee, and the salary and pension growth rates. The interest rate guarantee risk is regularly monitored as part of the risk management process. It constitutes a major focus of the company pension fund when determining the long-term interest requirements and how to fulfill them. Interest rate guarantee risks also affect the deferred compensation plans.

Pension Plan Financing

In 2019, benefits in the amount of €73.8 million (versus €72.6 million a year earlier) were paid under pension plans in Germany and €5.8 million (versus €5.2 million) under pension plans outside of Germany. WACKER anticipates that pension payments will reach approximately €86 million in the current year. Current employer contributions to plan assets will amount to around €40 million in 2020. The weighted duration of pension obligations as of December 31, 2019 was 21.9 years in Germany (versus 20.9 years a year earlier) and 13.6 years in the us (versus 12.1 years).

Risks

In addition to the usual actuarial risks, the risk inherent in the defined benefit obligation relates in particular to financial risks in connection with plan assets. In Germany, substantial amounts of the defined benefit obligation are administered by the pension fund. As part of an annual asset-liability study, the current and future relationships between the portfolio structure and obligations are analyzed and projections made. This results in the long-term return required of the pension fund, on the basis of which the pension fund defines a strategic target portfolio. This leads to an annual review and coordination of the required return, company contributions of sponsoring entities and strategic asset allocation.

All capital investments are exposed to market price fluctuation risks. These risks may comprise shifts in interest rates, share prices or exchange rates. WACKER aims to limit losses to a pre-defined amount using overlay management. In some cases, derivatives are used for hedging purposes.

Expected Pension Payments Due

€ million	Dec. 31, 2019	Dec. 31, 2018
Less than one year	– 85.6	– 81.6
One to two years	– 93.0	– 88.5
Two to three years	– 97.4	– 91.6
Three to four years	– 101.5	– 96.8
Four to five years	– 106.5	– 101.0

Composition of Pension Expenses

€ million	2019	2018
Current service cost from defined benefit plans	– 81.7	– 74.0
Past service cost	0.3	0.2
Net interest expense for defined benefit plans	– 35.0	– 33.2
Defined contribution plan expenses	– 7.1	– 6.8
Other pension expenses	– 3.7	– 2.3
Contributions to state pensions	– 60.2	– 57.0
Total	– 187.4	– 173.1

14 Other Provisions

€ million	2019			2018		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Personnel	107.7	101.7	6.0	103.0	98.1	4.9
Sales/purchasing	8.3	4.5	3.8	9.9	4.7	5.2
Environmental protection	86.1	86.1	–	80.5	79.3	1.2
Sundry	47.6	40.3	7.3	62.7	38.0	24.7
Other provisions	249.7	232.6	17.1	256.1	220.1	36.0

Provisions for Personnel

These include obligations for anniversary payments and funeral expenses as well as provisions for early-retirement and phased-early-retirement plans. There is a continuous reduction in noncurrent provisions for anniversary payments and provisions for phased-early-retirement plans. Interest-rate effects increased anniversary-payment provisions, while provisions for phased-early-retirement plans increased due to newly concluded agreements with employees still working for the company.

Sales/Purchasing Provisions

These provisions cover warranty and product-liability obligations as well as commissions payable to sales agents and contingent losses from contractual agreements. The greater part of these provisions is likely to be used for payouts over the next two years.

Provisions for Environmental Protection

Provisions for environmental protection are created for anticipated obligations regarding contaminated-site remediation, water pollution control, the recultivation of landfills, the clean-up of contaminated storage and

production sites, and similar environmental measures. These provisions also include environmental protection charges likely to be imposed by government agencies. The noncurrent provisions for environmental protection are likely to be utilized within a period of 25 years.

Sundry Provisions

These provisions are formed for a multiplicity of identifiable individual risks and contingencies (e.g. damages, reimbursement claims, legal expenses). In addition to risks in connection with property and wealth taxes, they cover risks stemming from interest and penalties not recognized under income taxes.

Depending on the situation in the individual countries, discount rates of up to 3 percent were used to determine the provisions, mainly those for phased early retirement and for anniversaries. Given the prevailing low interest rates, a discount rate of almost zero was applied to provisions for environmental protection as of the reporting date.

Other Provisions

€ million	Jan. 1, 2019	Utilization	Reversal	Addition	Interest effect	Exchange-rate differences	Changes in scope of consolidation/other ¹	Dec. 31, 2019
Personnel	103.0	– 40.6	– 0.2	54.5	1.1	0.3	–10.4	107.7
Sales/purchasing	9.9	–2.8	–2.4	3.5	–	0.1	–	8.3
Environmental protection	80.5	– 4.0	– 0.7	10.3	0.1	– 0.1	–	86.1
Sundry	62.7	–15.2	–19.2	19.7	–	– 0.4	–	47.6
Other provisions	256.1	– 62.6	–22.5	88.0	1.2	– 0.1	–10.4	249.7

¹ "Other" includes the change of €10.4 million in plan assets for phased-early-retirement commitments within provisions for personnel.

15 Financial Liabilities

€ million	2019			2018		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Liabilities to banks	816.4	756.9	59.5	675.0	582.9	92.1
Liabilities from lease obligations	137.8	111.4	26.4	26.3	22.2	4.1
Other financial liabilities	304.7	180.7	124.0	295.9	289.6	6.3
Financial liabilities	1,258.9	1,049.0	209.9	997.2	894.7	102.5

In 2019, WACKER took out new bank loans totaling €200 million. Loans totaling CNY 440.1 million (€58.0 million) were repaid, some of them ahead of schedule. Ongoing repayments of investment loans totaled €16 million.

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No collateral exists for financial liabilities, nor are they secured through liens or similar rights. Some of the liabilities to banks are fixed-interest while others have variable interest rates. In certain cases, WACKER has fixed-interest loans with exercisable termination options. Due to the high penalties payable on early termination, these options currently have no positive value and their fair value is negligible. WACKER does not recognize these for reasons of immateriality. Some of the liabilities to banks were granted on condition of compliance with particular covenants.

The liabilities to banks comprise the following:

€ million	2019				2018			
	Currency	Carrying amount € million	Of which with variable interest rates	Maturity by	Currency	Carrying amount € million	Of which with variable interest rates	Maturity by
Investment loan	EUR	16.0	16.0	2020	EUR	32.0	32.0	2020
Investment loan	EUR	200.0	—	2022	EUR	200.0	—	2022
Promissory note (German Schuldschein)	EUR	50.0	—	2023	EUR	50.0	—	2023
Promissory note (German Schuldschein)	EUR	150.0	45.5	2023	EUR	150.0	105.5	2023
Promissory note (German Schuldschein)	EUR	150.0	43.0	2025	EUR	150.0	43.0	2025
Bank loan	KRW	21.6	21.6	2020	KRW	22.0	22.0	2019
Bank loan	CNY	—	—	2019	CNY	30.8	30.8	2019
Bank loan	CNY	—	—	2020	CNY	12.7	12.7	2020
Bank loan	EUR	100.0	—	2022	—	—	—	—
Bank loan	EUR	100.0	—	2024	—	—	—	—
Operating loan	CNY	—	—	2019	CNY	12.4	12.4	2019
Operating loan	BRL	16.6	16.6	2020	—	—	—	—
Other		12.2	3.9	—		15.1	2.7	—
Total		816.4				675.0		
Fair value		825.1				678.1		

Other financial liabilities comprise the following:

€ million	2019				2018			
	Currency	Carrying amount € million	Of which with variable interest rates	Maturity by	Currency	Carrying amount € million	Of which with variable interest rates	Maturity by
Private placement (1st installment)	USD	—	—	2018	USD	—	—	2018
Private placement (2nd installment)	USD	115.9	—	2020	USD	113.5	—	2020
Private placement (3rd installment)	USD	178.0	—	2023	USD	174.5	—	2023
Sundry other financial liabilities		10.8	—			7.9	—	
Total		304.7				295.9		
Fair value		305.0				287.4		

The carrying amounts of the current financial liabilities correspond to the repayment amounts. With the exception of the euro-denominated investment loan totaling €16 million and another loan in the amount of €4.2 million, all the loans fall due on maturity.

The following table shows the future redemption and interest payments for the bank liabilities and other financial liabilities.

€ million	2020	2021	2022	2023	2024 to 2025
Repay- ment	183.5	7.9	300.6	379.1	250.0
Interest	14.5	12.4	11.2	4.7	1.6

There are also unused long-term lines of credit amounting to €600.0 million (versus €600.0 million a year earlier), where all the conditions for utilization are met.

16 Financial and Non-Financial Liabilities

€ million	2019			2018		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Trade payables	355.0	—	355.0	470.6	—	470.6
Derivative financial instruments	6.0	—	6.0	11.2	0.3	10.9
Sundry financial liabilities	8.4	0.1	8.3	12.5	0.1	12.4
Other financial liabilities	14.4	0.1	14.3	23.7	0.4	23.3
Payables relating to social security	8.3	—	8.3	6.7	—	6.7
Payroll liabilities	5.6	—	5.6	8.7	—	8.7
Variable compensation	15.7	—	15.7	74.8	—	74.8
Other personnel liabilities	24.5	—	24.5	22.8	—	22.8
Other tax liabilities	18.5	—	18.5	23.8	—	23.8
Deferred income	2.1	—	2.1	15.0	—	15.0
Sundry non-financial liabilities	9.6	0.5	9.1	7.9	—	7.9
Other non-financial liabilities	84.3	0.5	83.8	159.7	—	159.7
Advance payments received	107.3	61.0	46.3	135.8	64.1	71.7
Discount accruals	12.8	—	12.8	15.1	—	15.1
Contract liabilities	120.1	61.0	59.1	150.9	64.1	86.8
Income tax liabilities	95.1	82.0	13.1	110.2	88.3	21.9

Income tax liabilities contain amounts for current income tax obligations as well as for uncertain tax positions.

144 Payables relating to social security refer in particular to social-insurance contributions that have yet to be paid.

Other personnel liabilities include, in particular, vacation and flextime credits, as well other HR-related liabilities.

Advance payments received relate primarily to future deliveries of polysilicon.

No collateral exists for other liabilities, nor are they secured through liens or similar rights.

17 Contingent Liabilities, Contingent Assets, Other Financial Obligations and Other Risks

The carrying amounts of contingent liabilities correspond to the extent of the liability as of the reporting date. At WACKER, contingent liabilities primarily concern incurred guarantees totaling €0.9 million, versus €0.3 million in the prior year. It is unlikely that the guarantees will be utilized.

Obligations from orders for planned investment projects (commitments) amounted to €59.4 million, after €209.6 million in the prior year, and concern the operating segments.

The Group ensures capacity utilization at its joint venture with DowDupont via long-term purchasing commitments of some €90 million annually, versus €100 million in the prior year.

As regards its current raw-material supplies, WACKER has entered into long-term agreements to purchase strategic raw materials, electricity and gas. Accordingly, in net terms, the company had other financial obligations in the amount of €1.60 billion arising from significant minimum-purchasing arrangements in the reporting period, after €1.07 billion the year before. The agreements have terms of between one and fifteen years.

The Group receives public grants and allowances for investing activities. These incentives are granted on condition that a certain number of jobs are created or maintained at certain sites. If these contractual commitments are not fulfilled, all or part of any funding received must be paid back. The period during which the Group has to fulfill its contractual commitments is limited.

WACKER is occasionally involved in legal or arbitration proceedings as well as official investigations and actions. Pending proceedings can have a negative impact on WACKER's earnings, net assets and financial position. At the present time, WACKER does not expect any material negative effects from pending proceedings.

18 Other Disclosures

Social benefits comprise in particular the employer's share of social insurance contributions as well as contributions to the employers' liability insurance association. Pension expenses consist mainly of contributions to state pensions and allocations to pension provisions. Related interest is shown in the financial result. The expenses incurred in transfers to external pension funds and pension plans are likewise included in pension expenses.

€ million	2019	2018
Cost of materials	-2,203.7	-2,348.7
Personnel expenses		
Wages and salaries	-990.6	-986.6
Social benefits and expenses for aid	-171.0	-162.0
State pension contributions	60.2	57.0
Social security contributions	-110.8	-105.0
Pension expenses	-92.2	-82.9
Contributions to state pensions	-60.2	-57.0
Pension expenses	-152.4	-139.9
Total personnel expenses	-1,253.8	-1,231.5

The fee for auditors in the amount of €0.8 million (versus €0.8 million a year earlier) relates to KPMG AG Wirtschaftsprüfungsgesellschaft. Of this amount, €0.7 million (versus €0.6 million) was for financial statement auditing services and €0.1 million (versus €0.2 million) for other attestation services. The other attestation services included attestation as per Section 64 of the German Renewable Energy Act (EEG), Section 17 of the German Energy Industry Act (EnWG), Section 20 of the German Securities Trading Act (WpHG in relation to EMIR), Article 25 (1) of the EU regulation on electricity price compensation and the German Packaging Regulation, as well as an assurance service for the Group non-financial report.

€ million	2019	2018
Expenses for auditors' fees		
Audit services	0.7	0.6
Other attestation services	0.1	0.2
Tax consultation services	—	—
Other services	—	—
Total	0.8	0.8

19 Earnings per Share/Dividend

The diluted earnings per share were identical to the basic earnings in both the year under review and the previous year.

The dividend distribution for fiscal 2018 amounted to €124.2 million, or €2.50 per dividend-bearing share. No allocations to retained earnings were made at Wacker Chemie AG for fiscal 2018.

For 2019, the Executive Board of Wacker Chemie AG has proposed a dividend of €0.50 per share. The dividend proposal relates solely to dividend-bearing shares, i.e. excluding treasury shares. The acceptance or rejection of this proposal is the responsibility of the Annual Shareholders' Meeting of Wacker Chemie AG. Subject to acceptance of the proposal, an amount of €24,838,991.50 will be distributed to the 49,677,983 no-par-value shares not held by the company.

	2019	2018
Average number of outstanding common shares (units)	49,677,983	49,677,983
Number of common shares outstanding at the end of the year (units)	49,677,983	49,677,983
Dividend per dividend-bearing common share (€)	0.50	2.50
Distribution per dividend-bearing common share (€)	0.50	2.50
Net result for the year attributable to Wacker Chemie AG shareholders (€ million)	-642.6	246.1
Earnings due to common shares (€ million)	-642.6	246.1
Earnings per common share (average, €)	-12.94	4.95
Earnings per common share (as of reporting date, €)	-12.94	4.95

20 Financial Instruments

The following table shows financial assets and liabilities by measurement categories and classes. Lease liabilities and derivatives that qualify for hedge accounting are also shown even though they do not belong to any of the IFRS 9 measurement categories. WACKER has not pledged any financial assets as security.

The fair value of financial instruments measured at amortized cost is determined by means of discounting, taking into account market interest rates that are adequate to the inherent risk and correspond to the relevant maturity. The fair value of current items in the statement of financial position is seen as equivalent to their carrying amounts, as the difference between them is immaterial.

Financial Assets and Liabilities by Measurement Category and Class as of Dec. 31, 2019

€ million			Measurement	Measurement			
	Balance sheet carrying amount Dec. 31, 2019	(Amortized) cost	Fair value through profit or loss	pursuant to IFRS 9	Fair value through other comprehensive income	Measurement pursuant to IFRS 16	Fair value as of Dec. 31, 2019
Trade receivables	631.5	631.5	—	—	—	—	631.5
Other financial assets	138.7	121.6	14.3	2.8	—	—	138.7
Loans and other financial assets, measured at amortized cost	—	121.6	—	—	—	—	121.6
Investments in equity instruments (FVTPL)	—	—	11.6	—	—	—	11.6
Derivatives that do not qualify for hedge accounting (FVTPL)	—	—	2.7	—	—	—	2.7
Derivatives that qualify for hedge accounting	—	—	—	2.8	—	—	2.8
Securities and fixed-term deposits	109.4	59.5	49.9	—	—	—	109.4
Securities and fixed-term deposits (measured at amortized cost)	—	59.5	—	—	—	—	59.5
Securities (FVOCI)	—	—	—	—	—	—	—
Securities (FVTPL)	—	—	49.9	—	—	—	49.9
Cash and cash equivalents (measured at amortized cost)	435.8	435.8	—	—	—	—	435.8
Total financial assets	1,315.4	—	—	—	—	—	1,315.4
Financial liabilities (measured at amortized cost)	1,121.1	1,121.1	—	—	—	—	1,130.1
Lease liabilities	137.8	—	—	—	137.8	—	137.8
Trade payables (measured at amortized cost)	355.0	355.0	—	—	—	—	355.0
Other financial liabilities	14.4	8.4	4.3	1.7	—	—	14.4
Financial liabilities recognized at amortized cost	—	8.4	—	—	—	—	8.4
Derivatives that do not qualify for hedge accounting (FVTPL)	—	—	4.3	—	—	—	4.3
Derivatives that qualify for hedge accounting	—	—	—	1.7	—	—	1.7
Total financial liabilities	1,628.3	—	—	—	—	—	1,637.3

Financial Assets and Liabilities by Measurement Category and Class as of Dec. 31, 2018

€ million				Measurement	Measurement		
	Balance sheet carrying amount Dec. 31, 2018	(Amortized) cost	Fair value through profit or loss	pursuant to IFRS 9	pursuant to IAS 17	(Amortized) cost	Fair value as of Dec. 31, 2018
Trade receivables	681.9	681.9	—	—	—	—	681.9
Other financial assets	139.4	117.4	15.3	6.7	—	—	139.4
Loans and other financial assets, measured at amortized cost	—	117.4	—	—	—	—	117.4
Investments in equity instruments (FVTPL)	—	—	11.3	—	—	—	11.3
Derivatives that do not qualify for hedge accounting (FVTPL)	—	—	4.0	—	—	—	4.0
Derivatives that qualify for hedge accounting	—	—	—	6.7	—	—	6.7
Securities and fixed-term deposits	46.4	20.6	20.2	5.6	—	—	46.4
Securities and fixed-term deposits (measured at amortized cost)	—	20.6	—	—	—	—	20.6
Securities (FVOCI)	—	—	—	5.6	—	—	5.6
Securities (FVTPL)	—	—	20.2	—	—	—	20.2
Cash and cash equivalents (measured at amortized cost)	341.1	341.1	—	—	—	—	341.1
Total financial assets	1,208.8	—	—	—	—	—	1,208.8
Financial liabilities excluding finance leases (measured at amortized cost)	970.9	970.9	—	—	—	—	965.5
Liabilities from finance leases	26.3	—	—	—	26.3	—	26.3
Trade payables (measured at amortized cost)	470.6	470.6	—	—	—	—	470.6
Other financial liabilities	23.7	12.5	4.8	6.4	—	—	23.7
Financial liabilities recognized at amortized cost	—	12.5	—	—	—	—	12.5
Derivatives that do not qualify for hedge accounting (FVTPL)	—	—	4.8	—	—	—	4.8
Derivatives that qualify for hedge accounting	—	—	—	6.4	—	—	6.4
Total financial liabilities	1,491.5	—	—	—	—	—	1,486.1

Trade receivables, other loans and fixed-term deposits as well as cash and cash equivalents are recognized at amortized cost. Cash and cash equivalents in foreign currency are measured at the conversion rate prevailing on the reporting date. Their carrying amounts correspond to their fair values. The fair value of loans corresponds to their present value, i.e. the present value of the expected future cash flows. Discounting is carried out on the basis of the interest rates valid as of the reporting date.

Investments in exchange-traded fixed-interest securities are recognized at fair value through other comprehensive income (FVOCI). Certain securities (funds) and investments

in equity instruments are classified as fair value through profit or loss (FVTPL). The investments in equity interests are also recognized at fair value, the best approximation of which is their historical cost, as no observable prices on active markets are available.

The carrying amounts of trade payables and other financial liabilities correspond to their fair values. The fair values of financial liabilities constitute the present value of the expected future cash flows. Discounting is carried out on the basis of the interest rates valid as of the reporting date. All other financial liabilities are valued at cost as no observable prices are available for them.

The following table shows the net gains and losses from financial instruments.

€ million	2019	2018
Net gains/losses from financial instruments		
Financial assets measured at amortized cost	8.8	16.6
Financial assets measured at fair value through other comprehensive income (FVOCI)	—	0.1
Assets/liabilities measured at fair value through profit or loss (FVTPL)	0.4	–33.9
Financial liabilities measured at amortized cost	–24.8	–9.8
Total	–15.6	–27.0

The net result of the category “financial assets measured at amortized cost” primarily comprised: net losses/gains from foreign currency translation, interest income from financial assets, fixed-term deposits and bank deposits, and loss allowances.

The “financial assets (FVOCI)” category comprises interest income and other changes in fixed-interest securities.

The gains and losses from changes in the fair value of foreign-exchange, interest-rate and commodity derivatives that do not fulfill the requirements of IAS 39 for hedge accounting are posted in the category “Assets/liabilities measured at fair value through profit or loss.” In the prior year, this item also reflected changes in value from the remeasurement of hedging transactions as part of fair value hedge accounting. This item also contains distributions stemming from funds as well as fair value changes in investments in equity instruments.

The interest income from financial assets that are not recognized at fair value through profit or loss amounted to €10.4 million, compared with the prior-year figure of €8.0 million. This income mainly comprised interest on bank deposits, fixed-term deposits and loans.

The interest expense from financial liabilities that are not recognized at fair value through profit or loss amounted to €20.9 million, versus €21.2 million in the prior year, and was mainly attributable to financial liabilities.

The net losses in the category “Financial liabilities measured at amortized cost” primarily comprise interest expenses on bank liabilities and other financial liabilities, as well as net losses/gains from foreign currency translation.

Neither in the year under review nor in the previous year were there any reclassifications of financial assets between those recognized at amortized cost and those recognized at market value or vice versa.

The derecognition of financial assets measured at cost did not result in any material gains or losses.

The financial assets and liabilities measured at fair value in the financial statements were allocated to one of three categories in accordance with the fair value hierarchy described in IFRS 13. Allocation to these categories reveals which of the fair values reported were settled through market transactions and the extent to which the measurement was based on models in the absence of observable market transactions.

The following are the levels of the hierarchy.

Level 1

Financial instruments measured using quoted prices in active markets, the fair value of which can be derived directly from prices in active liquid markets and for which the financial instrument observable in the market is representative of the financial instrument being measured. These include fixed-interest securities and a mutual fund, both of which are traded in liquid markets.

Level 2

Financial instruments measured using valuation methods based on observable market data, the fair value of which can be determined using similar financial instruments traded in active markets or using valuation methods all of whose parameters are observable. These include hedging and non-hedging derivative financial instruments, loans and financial liabilities.

Level 3

Financial instruments measured using valuation methods not based on observable parameters, the fair value of which cannot be determined using observable market data and which require the application of different valuation methods. The financial instruments belonging to this category have a value component that is not market-observable and has a major impact on fair value. These include over-the-counter derivatives and unquoted equity instruments.

The following table shows the categories in the fair value hierarchy to which the financial assets and liabilities measured at fair value in the statement of financial position are allocated. The table also shows financial assets and liabilities measured at cost in the statement of financial position. Their fair values are given in the Notes:

Fair Value Hierarchy 2019

€ million	Fair value hierarchy			Total
	Level 1	Level 2	Level 3	
As of December 31, 2019				
Financial assets measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVTPL)	—	2.7	—	2.7
Investments in equity instruments – trading (FVTPL)	—	—	11.6	11.6
Fair value through other comprehensive income/through profit or loss				
Derivatives that qualify for hedge accounting	—	2.8	—	2.8
Securities – held-to-collect and for sale (FVOCI)	—	—	—	—
Securities – trading (FVTPL)	49.9	—	—	49.9
Total	49.9	5.5	11.6	67.0
Financial assets measured at amortized cost				
Loans – held-to-collect	—	91.1	—	91.1
Total	—	91.1	—	91.1
Financial liabilities measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVTPL)	—	4.3	—	4.3
Fair value through other comprehensive income/through profit or loss				
Derivatives that qualify for hedge accounting	—	1.7	—	1.7
Total	—	6.0	—	6.0
Financial liabilities measured at amortized cost				
Financial liabilities	—	1,130.1	—	1,130.1
Total	—	1,130.1	—	1,130.1

Fair Value Hierarchy 2018

€ million	Fair value hierarchy			Total
	Level 1	Level 2	Level 3	
As of December 31, 2018				
Financial assets measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVTPL)	—	4.0	—	4.0
Investments in equity instruments – trading (FVTPL)	—	—	11.3	11.3
Fair value through other comprehensive income/through profit or loss				
Derivatives that qualify for hedge accounting	—	6.7	—	6.7
Securities – held-to-collect and for sale (FVOCI)	5.6	—	—	5.6
Securities – trading (FVTPL)	20.2	—	—	20.2
Total	25.8	10.7	11.3	47.8
Financial assets measured at amortized cost				
Loans – held-to-collect	—	89.6	—	89.6
Total	—	89.6	—	89.6
Financial liabilities measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVTPL)	—	4.8	—	4.8
Fair value through other comprehensive income/through profit or loss				
Derivatives that qualify for hedge accounting	—	6.4	—	6.4
Total	—	11.2	—	11.2
Financial liabilities measured at amortized cost				
Financial liabilities	—	965.5	—	965.5
Total	—	965.5	—	965.5

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WACKER regularly reviews whether its financial instruments are still allocated to the appropriate fair-value-hierarchy levels. As was the case in the previous year, no reclassifications were carried out within the fair value hierarchy in 2019.

In the period under review, WACKER measured only financial assets and liabilities at fair value. The market values were calculated using market information available as of the reporting date and based on counterparties' quoted prices or via appropriate valuation methodologies (discounted cash flow or well-established actuarial methodologies, such as the par method or Black-Scholes formula).

Derivative financial instruments and financial assets (trading and held-to-collect and for sale) are recognized at fair value and are thus subject to a recurring fair value assessment.

The fair value of derivative financial instruments is calculated based on market data such as exchange rates or yield curves in accordance with market-specific valuation methodologies.

The calculation of the fair value contains our own and the counterparty's default risk, using maturity-matching and market-observable CDS values. The fair value of financial assets (trading and held-to-collect and for sale) can be derived from prices listed in active markets.

Loans and financial liabilities are measured at amortized cost. However, the fair values must be provided in the Notes.

The fair value of loans corresponds to the present value of expected future cash flows. Application of the discounted cash flow method using market interest rates means that the carrying amount of the loans corresponds to their fair value.

The fair value of financial liabilities is determined using the net present value method and is based on standard market interest rates.

WACKER measured equity instruments not held for trading in the amount of €11.6 million (versus €11.3 million a year earlier) at fair value pursuant to IFRS 9 and reallocated these to Level 3 of the fair value hierarchy. The equity instruments concerned consist of small, regional investments in companies that operate infrastructure facilities. No fair value exists for these companies since no active market values are available. WACKER reviews the carrying amounts of investments in equity instruments once a year to counter the risk of a change in value. WACKER had no intention of selling any of the shares reported as of December 31, 2019.

The unilateral call option (Level 3 of the fair value hierarchy) held by WACKER for the purchase of 1 percent of the shares in the subsidiary WACKER Asahikasei Silicones Co. Ltd., Japan was recognized at cost as of December 31, 2019. The acquisition cost best reflects the option's fair value.

No changes were made to the valuation methodology compared with the previous year.

Management of Financial Risks

In the normal course of business, WACKER is exposed to credit, liquidity, and market risks from financial instruments. The aim of financial risk management is to limit risks from operations and the resultant financing requirements by using certain derivative and non-derivative hedging instruments.

The risks connected with the procurement, financing and selling of WACKER's products and services are described in detail in the management report. WACKER counters financial risks via the risk management system it has in place. That system is monitored by the Supervisory Board. The fundamental purpose of the risk management system is to identify, analyze, coordinate, monitor and communicate risks in a timely manner. The Executive Board receives regular analyses on the extent of those risks. The analyses focus on market risks, in particular on the potential impact of raw-material price risks, foreign-exchange risks and interest-rate risks on EBITDA and the interest result.

Credit Risk (Risk of Default)

In terms of financial instruments, the Group is exposed to a default risk should a contractual party fail to fulfill its commitments. The maximum risk is therefore the amount of the respective financial instrument's positive fair value. To limit the risk of default, particularly for investments of securities and cash, transactions are conducted only within defined limits and with partners of very high credit standing. To ensure risks are managed as efficiently as possible, the market risks within the Group are controlled centrally. The transactions are concluded and managed in compliance with internal credit-risk principles and are subject to monitoring procedures that take account of the separation of duties. As for operations, outstanding receivables and default risks are continually monitored and hedged with trade credit insurance, advance payments and bank guarantees. Customer credit ratings and limits are based on generally available information from rating agencies and internal documents. No collateral exists for financial instruments. Receivables from major customers are not high enough to represent an extraordinary concentration of risks. Default risks are accounted for by loss allowances, taking advance payments received into account. For information on default risks, please refer to the Accounting and Valuation Principles and the Notes to the individual items of the statement of financial position.

Liquidity Risk

A liquidity risk means that a company may not be able to meet its existing or future financial obligations due to inadequate funds. To ensure uninterrupted solvency and financial flexibility, the Group holds not only long-term lines of credit at financial institutions with high credit ratings, but also liquid funds based on multiyear financial planning and rolling liquidity planning.

To limit liquidity risk, WACKER keeps liquid reserves in the form of current investments and unused lines of credit. WACKER has also concluded agreements with a number of banks for long-term syndicated loans and bilateral loans.

For information on the maturity analysis for non-derivative financial liabilities, please refer to the note on Financial Liabilities.

➤ See Note 15

Market Risk

Market risk refers to the risk that fair values or future cash flows of a primary or derivative financial instrument could fluctuate due to changing risk factors.

Foreign-Exchange Risk

The potential currency exposure to be hedged with derivative financial instruments is determined on the basis of the company's major foreign-currency income and expenditure. The greatest risk results from the us dollar. us-dollar income is taken to mean all sales invoiced in us dollars, while all purchases in us dollars as well as site costs incurred in us dollars are reported under us-dollar expenditure. The us dollar is the only relevant risk variable for the sensitivity analysis in accordance with IFRS 7, since the largest share of foreign-currency cash flows is in us dollars. By comparison, increases in the euro exchange rate against the renminbi (CNY) and yen (JPY) have a minor impact. In determining sensitivity, we simulate a 10-percent us-dollar devaluation against the euro, taking as a starting point the exchange rate used in the forecast. Such a devaluation would have had an effect on EBITDA of €-43 million as of December 31, 2019 and of €-52 million as of December 31, 2018. The effect from items designated as cash flow hedges would have increased equity before income taxes by €18.9 million (versus €15.8 million a year earlier). The Group's currency exposure amounted to €435 million as of December 31, 2019 (versus €516 million).

Interest-Rate Risk

The interest-rate risk results mainly from financial liabilities and interest-bearing investments. The Executive Board determines the mix of fixed- and variable-interest financial debt. Interest rate derivatives are concluded as required, taking account of the given structure. Depending on whether the instrument in question has a fixed or variable interest rate, the interest rate risks are measured on the basis of either market-value sensitivity or cash-flow sensitivity. As financial liabilities and fixed-interest investments are measured at amortized cost, under IFRS 7 they are not subject to any interest-rate risk. Fixed-interest securities are recognized at fair value. Due to their short maturities, they are not subject to a significant risk of changes in interest rates. Hedge accounting is not used for any of the interest-rate derivatives. Changes in market interest rates have an impact on the net interest income generated by variable-interest financial instruments and are thus included in the calculation of earnings-related sensitivity. Changes in the market interest rates of interest-rate derivatives affect the financial result, and are consequently included in any earnings-related sensitivity

analysis. In terms of variable interest rates, assets were greater than liabilities as of December 31, 2019. If the market interest rate on December 31, 2019 had been 100 base points higher (December 31, 2018: lower), the interest result would have been €4.0 million (€1.2 million) higher (lower).

Raw-Material Price Risk

In general, the company is faced with the risk that its supplies of raw materials may be inadequate and that potential increases in raw-material prices could threaten its results. These risks are covered by long-term contracts. Cash flow hedge accounting is used only to a minor degree for long-term energy needs in Norway. This item is recognized in profit or loss under the cost of goods sold.

Derivative Financial Instruments

Financial risks are also hedged using derivative financial instruments. The raw-material price risks that WACKER hedges against result principally from ongoing energy procurement. Electricity-supply prices are hedged via contracts for which the "own-use exemption" rules of IFRS 9 can generally be invoked. These contracts, which are concluded for the purpose of receiving or delivering non-financial goods according to WACKER's own needs, are not recognized as derivatives, but rather as pending transactions.

In those cases where WACKER hedges against currency risks, it uses derivative financial instruments, in particular foreign-exchange forwards, swaps and options. Derivatives are used only if they are backed by positions, cash deposits and funding, or scheduled transactions arising from operations. The scheduled transactions also include anticipated, but not yet invoiced, sales in foreign currencies.

Foreign-exchange hedging is carried out, in particular, for the us dollar. Potential interest rate hedges are based on the maturities of the underlying transactions.

Operational foreign-exchange hedging relates to the receivables and liabilities already recognized, and generally covers time horizons of between two and three months. The time horizon for strategic hedging is between three and a maximum of fifteen months. The hedged cash flows influence the statement of income at the time the sales are realized. The cash inflows are usually recorded shortly afterward, depending on the payment deadline. As well as receivables from and liabilities to third parties, intercompany financial receivables and liabilities are hedged.

The fair values refer to the redemption values (repurchase values) of the financial derivatives as of the reporting date and are calculated using recognized actuarial methods.

The derivatives are recognized at fair value, irrespective of their stated purpose. They are reported in the statement of financial position under other financial assets or other financial liabilities. Where permissible, cash flow hedge accounting is carried out for the strategic hedging of currency-exchange risks from future foreign-exchange positions. For further details, please refer to explanations in the section Accounting and Valuation Principles. Depending on the nature of the underlying transaction, the hedges are posted in the statement of income either under the operating result or, if financial liabilities are being hedged, under interest result or other financial result.

For strategic hedging purposes, the aim is to achieve a hedging ratio of around 50 percent in relation to the expected net exposure in us dollars. The expected net exposure for 2020 is about 45 percent hedged. The average hedging ratio for operational hedging in us dollars is around 50 percent.

In 2019, the accumulated income and expenses recorded directly in equity included a pre-tax result from cash flow hedges amounting to €4.1 million (versus €-12.8 million in the prior year), of which €-4.6 million concerned closed cash flow hedges. During 2019, €14.4 million was reclassified to the statement of income, after €0.5 million in the prior year. WACKER determines the effectiveness of the economic relationship between the hedged underlying transaction and the hedging instrument based on maturities, currencies and nominal amounts, with the hedge ratio between the hedging instrument and underlying transaction always being 100 percent in hedge accounting. WACKER uses the hypothetical derivative method to monitor whether the designated derivatives effectively hedge the cash flows of underlying transactions. The credit risk of counterparties

and changes in the timing of the highly probable future transactions hedged represent possible sources of ineffectiveness. In the result for the period, no gains or losses from ineffective hedge accounting were recorded, as the hedging relationships were almost entirely effective and the changes in value of hedging instruments were thus almost contrary to those of the underlying transactions. The following table shows the effects on the Group's earnings and net assets of the strategic hedging of currency risks from future foreign-currency positions:

€ million	Dec. 31, 2019	Dec. 31, 2018
Forward exchange contracts for strategic hedging		
Carrying amount liability	-1.7	-5.9
Carrying amount receivable	0.6	-
Nominal amount	-163.4	-163.5
Of which noncurrent	-8.7	-24.0
Change in value of hedged underlying transaction used to determine the effectiveness of hedging relationship	-1.1	5.9
Average hedging rate USD/€	1.15	1.22

Foreign exchange derivatives mainly comprised forwards, options and swaps amounting to us\$688.0 million, ¥850 million, €95 million (versus us\$493.0 million, ¥1,400.0 million and cny 75.0 million a year earlier). Derivatives with market values of €-2.4 million fall due in 2020.

Other derivatives concern electricity futures traded on the Norwegian market for a nominal amount of €8.5 million (€12.9 million in the prior year). The electricity futures are used to limit the risk of rising spot-market prices for energy via structured price setting on the electricity market. The hedged amount represents up to 90 percent of the Holla (Norway) site's future silicon-production power needs not covered by long-term supply contracts. The futures have maturities of between one and three years. Derivatives with

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€ million	Dec. 31, 2019		Dec. 31, 2018	
	Nominal values	Market values	Nominal values	Market values
Forward exchange contracts	508.2	-2.0	447.7	-10.2
Foreign exchange swaps	130.9	-2.3	20.0	0.8
Foreign exchange options	74.7	-	-	-
Interest rate derivatives	-	-	60.0	0.7
Other derivatives	8.5	3.8	12.9	9.5
Total	722.3	-0.5	540.6	0.8
Market values of derivative financial instruments used for hedge accounting	-	-1.1	-	-0.3

maturities until 2021 were concluded. The average hedging rate was €25.3/MWh (€25.3/MWh in the prior year).

The following table contains information on the netting of financial assets and liabilities in the consolidated statement of financial position.

In addition to the financial instruments complying with the provisions on netting pursuant to IAS 32, the table also includes those financial instruments that are subject to netting agreements or master netting agreements but may not be netted pursuant to IAS 32.

Financial Assets/Liabilities Subject to Netting Agreements, Enforceable Global Netting Agreements and Similar Agreements

€ million	Dec. 31, 2019		Dec. 31, 2018	
	Derivatives with a positive market value	Derivatives with a negative market value	Derivatives with a positive market value	Derivatives with a negative market value
I				
Gross amounts of recognized financial assets/liabilities	6.7	–7.3	11.7	–12.2
II				
Gross amounts of recognized financial assets/liabilities netted out in the statement of financial position	–1.2	1.2	–1.0	1.0
I + II				
Net amounts of financial assets/liabilities presented in the statement of financial position	5.5	–6.1	10.7	–11.2
Related amounts not netted out in the statement of financial position	–1.4	1.4	–1.3	1.3
Net amount	4.1	–4.7	9.4	–9.9

As a part of its strategic hedging activities, WACKER closes out forward-exchange contracts prior to maturity by means of offsetting transactions. The strategic forward-exchange contract and the corresponding offsetting forward-exchange transaction are recognized as a net amount in accordance with IAS 32 criteria. In addition, general offsetting agreements, which apply only in cases of insolvency, have been concluded with a number of banks.

The net amount shows the amount of financial assets or liabilities that, despite netting and global netting agreements, is not received or must be paid in the event of insolvency.

21 Notes to the Statement of Cash Flows

Cash flow from operating activities is calculated using the indirect method, which adjusts the relevant changes in statement-of-financial-position items for effects of currency translation or changes in the scope of consolidation. This means that changes to the relevant statement-of-financial-position items cannot be reconciled with the corresponding values based on the published consolidated statements of financial position.

Construction-related borrowing costs that have to be capitalized were deducted from the interest payments recognized in cash flow from operating activities. These construction-related borrowing costs increased the capital expenditure included in cash flow from investing activities by €2.5 million (versus €2.2 million in the prior year).

In the case of cash flow from investing activities, the actual outflows of funds are reported. It is also not possible to reconcile these figures with the additions to investments in the consolidated statement of financial position. If subsidiaries or business activities are acquired or sold, the effects of these transactions are shown as separate items in the statement of cash flows. Investments in securities falling due in more than three months are reported separately under cash flow from investing activities because, in economic terms, these transactions are considered to form part of liquidity.

Cash and Non-Cash Changes in Financial Liabilities

€ million	Jan. 1, 2019	Cash changes	Non-cash changes			Dec. 31, 2019
			Acquisitions/ disposals	Exchange- rate-related changes	Other	
Liabilities to banks	675.0	142.0	—	—0.7	0.1	816.4
Lease obligations	166.0 ¹	—34.8	6.2	0.4	—	137.8
Other financial liabilities	295.9	—	—	5.6	3.2	304.7
Financial liabilities	1,136.9	107.2	6.2	5.3	3.3	1,258.9

¹ Adjusted in accordance with IFRS 16

Please see Note 11 for more details on the composition of funds comprising cash and cash equivalents.

» See Note 11

22 Explanatory Notes on Segment Reporting

The Group's segment reporting is aligned with the internal organizational and reporting structure. WACKER reports on four operating segments (Silicones, Polymers, Biosolutions and Polysilicon), which are organized and managed autonomously on the basis of the type of products they offer and their different risk and income structures. For a detailed description of the segments' products and organization, please refer to the Management Report. Business segments are not combined. Any activities or results not assigned to an operating segment are shown under "Other," including the at-equity income from the investment in Siltronic. Foreign currency gains and losses are also shown under "Other."

Items in the statement of financial position and statement of income are assigned to the operating segments in accordance with the economic power of disposal. Assets used jointly by several segments are generally shown under "Other" if they cannot be assigned clearly to a particular segment. A similar approach is adopted for external financing. The carrying amount of the strategic investment in Siltronic, which is accounted for using the

The Group's financing is predominantly provided by means of bank loans granted in the form of loan commitments. Within the defined approval limits for loan commitments, our utilization of credit may be subject to fluctuations both within a given year and over several years. Loans raised and repaid in foreign currencies are converted at the exchange rate prevailing on the transaction date. The following table shows a reconciliation of all cash inflows and outflows as well as other non-cash changes in financial liabilities:

equity method, is also recognized under "Other." For the geographical regions, the assets and liabilities are assigned in accordance with where the respective Group company's site is located. Sales are classified in accordance with both the customer's location and the respective Group company's site. Income from, and the carrying amount of, the equity-accounted investment in Siltronic were assigned to the region "Germany."

WACKER measures the segments' success using the segment profitability variable EBITDA. EBITDA is calculated by adjusting EBIT for depreciation and amortization, impairments, and reversals. EBIT consists of the gross profit from sales, selling and general administrative expenses, research and development expenses, and other operating income and expenses, including income from investments in joint ventures and associates and other income from investments.

Asset additions, depreciation, amortization, impairments and reversals of impairment losses refer to intangible assets, to property, plant and equipment, to investment property and to financial assets. Internal sales show the sales that are generated between the segments. They are settled mainly on the basis of market prices or the planned cost of sales. Segment information is based on the same presentation and accounting methods used

for the consolidated financial statements. Receivables and liabilities, provisions, income, expenses, and results between the segments are eliminated in the course of consolidation.

Generally, the assets reported for the segments comprise all of their assets. Financial receivables, cash and cash equivalents, and deferred tax assets, however, are allocated to the “Other” segment.

The liabilities shown for the segments represent all of their liabilities – except deferred tax liabilities, which are shown under “Other.” The Group’s financial liabilities are allocated to individual segments in proportion to the segment assets. Provisions for pensions are allocated in accordance with Group personnel ratios. Advance payments received are allocated directly to the individual segments.

Non-cash expenses and income are divided up between the individual segments as follows:

Other Non-Cash Expenses (+) and Income (-)

€ million	2019	2018
SILICONES	-2.4	2.5
POLYMERS	0.1	-0.2
BIOSOLUTIONS	0.2	-1.0
POLYSILICON	29.5	77.1
Other	17.8	-12.2
Total	45.2	66.2

Important valuation changes not recognized through profit or loss concern changes in the market value of derivative financial instruments (cash flow hedging) and changes in value from the remeasurement of defined benefit pension plans.

Changes in the market value of derivative financial instruments from cash flow hedging were attributable to WACKER SILICONES, at €-3.6 million (after €4.6 million in the prior year), and to the “Other” segment, at €3.7 million (after €-7.5 million). A change of €2.7 million (after €-6.0 million) in derivative financial instruments from the investment in Siltronic was also recognized under “Other.”

The changes in value due to the remeasurement of defined benefit plans are allocated to the segments as follows:

Changes in Value from the Remeasurement of Defined Benefit Pension Plans

€ million	2019	2018
SILICONES	-134.5	-36.9
POLYMERS	-45.5	-12.7
BIOSOLUTIONS	-12.4	-3.8
POLYSILICON	-82.3	-22.5
Other	-267.6	-73.4
Total	-542.3	-149.3

Apart from Germany, the only countries in which WACKER generates significant sales from a Group standpoint are the USA and China. Measured in relation to the headquarters of the selling unit, sales amounted to €686.4 million in the USA (after €660.2 million in the previous year) and €537.8 million in China (after €517.4 million). Measured by the customer location in the USA and China, the respective sales generated were €701.6 million (after €670.4 million) and €954.6 million (versus €940.9 million). WACKER has no major customer whose sales it is obliged to disclose.

The reconciliation of the segments’ aggregate results with the net income for the year is shown in the following list:

Reconciliation of Segment Results (EBIT)

€ million	2019	2018
Operating result of reporting segments	-536.6	390.4
Consolidation	0.3	-0.8
Group EBIT	-536.3	389.6
Financial result	-54.9	-65.2
Income before taxes	-591.2	324.4
Income taxes	-38.4	-64.3
Net income for the year	-629.6	260.1

23 Breakdown of Shareholdings

Unless otherwise stated, the following figures for international subsidiaries were calculated in accordance with IFRS.

Serial number	Activity	Identifier*	Equity in € '000	Net income for the year in € '000	Capital share in %	Held by serial number ¹	
Affiliated Companies							
Germany							
1	Alzwerke GmbH, Munich	Other	a), b)	7,160	—	100.00	0
2	DRAWIN Vertriebs-GmbH, Hohenbrunn-Riemerling	Silicones	a), b)	5,012	—1	100.00	0
3	Wacker-Chemie Versicherungsvermittlung GmbH, Munich	Other	a), b)	26	—	100.00	0
4	Wacker-Chemie Beteiligungsfinanzierungs GmbH, Munich	—	—	29	—	100.00	0
5	Wacker Polysilicon Geschäftsführungs GmbH, Nünchritz	—	—	26	—	100.00	0
6	Wacker-Chemie Erste Venture GmbH, Munich	—	—	79	—	100.00	0
7	Wacker-Chemie Zweite Venture GmbH, Munich	—	—	35	—	100.00	0
8	Wacker-Chemie Sechste Venture GmbH, Munich	—	—	27	—	100.00	0
9	Wacker Biotech GmbH, Jena	Biosolutions	a), b)	290	—	100.00	0
10	Wacker-Chemie Siebte Venture GmbH, Munich	—	—	24	—	100.00	0
11	Wacker-Chemie Achte Venture GmbH, Munich	—	a), b)	2,753	—	100.00	0
12	Wacker-Chemie Zehnte Venture GmbH, Munich	—	—	24	—	100.00	0
13	Wacker-Chemie Elfte Venture GmbH, Munich	—	—	24	—	100.00	0
14	Wacker-Chemie Zwölfte Venture GmbH, Munich	—	—	24	—	100.00	0
Rest of Europe							
15	Wacker Chemicals Finance B. V., Zaanstad, Netherlands	Holding	—	2,124,824	1,012	100.00	0
16	Wacker-Chemicals Ltd., Purley, Surrey, Great Britain	Sales and distribution	—	589	456	100.00	0
17	Wacker Chemie Italia S. r. L., San Donato Milanese, Italy	Sales and distribution	—	9,097	7,489	100.00	0
18	Wacker-Chemie Benelux B. V., Zaanstad, Netherlands	Sales and distribution	—	355	337	100.00	15
19	Wacker Chimie S. A. S., Lyon, France	Sales and distribution	—	1,329	1,060	100.00	0
20	Wacker-Kemi AB, Solna, Sweden	Sales and distribution	—	541	479	100.00	0
21	Wacker Química Ibérica, S. A., Barcelona, Spain	Sales and distribution	—	748	610	100.00	0
22	Wacker-Chemie s. r. o., Plzeň, Czech Republic	Sales and distribution, Silicones	—	3,531	302	100.00	0
23	Wacker-Chemia Polska Sp. z o. o., Warsaw, Poland	Sales and distribution	—	670	529	100.00	0
24	Wacker-Chemie Hungary Kft., Budapest, Hungary	Sales and distribution	—	768	605	100.00	0
25	LLC Wacker Chemie Rus, Moscow, Russia	Sales and distribution	—	745	37	100.00	0
26	Wacker Chemicals Norway AS, Holla, Hemne, Norway	Silicones	—	102,018	—15,960	100.00	15
27	Wacker Kimya Tic. Ltd. Sti., Istanbul, Turkey	Sales and distribution	—	214	49	100.00	15
28	Wacker Biosolutions León, S. L. U., León, Spain	Biosolutions	—	15,903	799	100.00	15
29	Wacker Biotech B. V., Amsterdam, Netherlands	Biosolutions	—	16,855	—6,196	100.00	15

Serial number	Activity	Identifier*	Equity in € '000	Net income for the year in € '000	Capital share in %	Held by serial number ¹
The Americas						
30	Wacker Química do Brasil Ltda., Jandira – São Paulo, Brazil	Silicones, Polymers, Biosolutions	24,005	2,176	99.90 0.10	0 2
31	Wacker Mexicana S.A. de C.V., Mexico, D.F., Mexico	Sales and distribution	1,545	611	100.00	0
32	Wacker Chemical Corp., Adrian, Michigan, USA	Silicones, Polymers, Biosolutions	2,132,098	20,523	100.00	15
33	Wacker Polysilicon North America, L.L.C., Cleveland, Tennessee, USA	Polysilicon	1,682,661	10,911	100.00	32
34	Wacker Colombia S.A.S., Bogotá, Colombia	Sales and distribution	176	9	100.00	15
Asia						
35	Wacker Asahikasei Silicone Co. Ltd., Tokyo, Japan	Silicones	17,599	992	50.00 ³	0
36	Wacker Chemicals (South Asia) Pte. Ltd., Singapore	Sales and distribution	2,583	1,058	100.00	0
37	Wacker Chemicals Hong Kong Ltd., Hong Kong, China	Sales and distribution	2,677	136	100.00	0
38	Wacker Metroark Chemicals Pvt. Ltd., Kolkata, India	Silicones	75,651	19,328	51.00	0
39	Wacker Chemicals Korea Inc., Seongnam-si, South Korea	Silicones, Polymers	127,931	6,585	100.00	15
40	Wacker Chemicals East Asia Ltd., Tokyo, Japan	Sales and distribution	452	304	100.00	0
41	Wacker Chemicals Fumed Silica (Zhangjiagang) Holding Co. Private Ltd., Singapore	Holding	47,919	–21	51.00	0
42	Wacker Chemicals Fumed Silica (Zhangjiagang) Co. Ltd., Zhangjiagang, China	Silicones	33,195	6,144	100.00	41
43	Wacker Chemicals (Zhangjiagang) Co. Ltd., Zhangjiagang, China	Silicones	72,621	9,161	100.00	44
44	Wacker Chemicals (China) Co. Ltd., Shanghai, China	Sales and distribution	232,237	23,568	100.00	0
45	Wacker Chemicals (Nanjing) Co. Ltd., Nanjing, China	Polymers, Biosolutions	63,925	4,898	100.00	44
46	Wacker Chemie India Pvt. Ltd., Mumbai, India	Sales and distribution	3,973	399	99.90 0.10	15 0
47	PT. Wacker Chemicals Indonesia, Tangerang, Indonesia	Silicones, Polymers, Biosolutions	208	20	99.00 1.00	15 2
Other Regions						
48	Wacker Chemicals Australia Pty. Ltd., Melbourne, Australia	Sales and distribution	629	316	100.00	0
49	Wacker Chemicals Middle East FZE, Dubai, UAE	Sales and distribution	3,415	581	100.00	0
Joint Ventures/Associates						
50	Dow Siloxane (Zhangjiagang) Holding Co. Private Ltd., Singapore ²	Silicones	402,166	6,025	25.00	0
51	Wacker Dymatic Silicones (Shunde) Co. Ltd., Foshan, China	Silicones	21,740	3,656	50.00	44
52	Siltronic AG, Munich ²	Other	930,240	225,655	30.83	0
53	Nexeon Ltd., Abingdon, Oxfordshire, United Kingdom ⁴	Other	24,007	–9,340	24.99	0

* Identifier:

a) Wacker Chemie AG has concluded profit and loss transfer agreements with these entities.

b) The shareholders have agreed not to disclose the financial statements of these entities (Section 264 (3) of the German Commercial Code).

¹ Serial number 0: Wacker Chemie AG² Only direct holdings in the relevant parent companies are listed; figures from consolidated financial statements in accordance with IFRS³ Control on the basis of potential voting rights⁴ Figures refer to the annual financial statements in accordance with UK GAAP for the period January 1 to December 31, 2018

24 Related Party Disclosures

IAS 24 stipulates that a person or company which controls, or is controlled by, Wacker Chemie AG must be disclosed unless the party in question is already included in Wacker Chemie AG's consolidated financial statements as a consolidated company. If a shareholder has more than half of the voting rights in Wacker Chemie AG or, by virtue of provisions in the Articles of Association or contractual arrangements, has the possibility of controlling the financial and business policy of the WACKER Group's Executive Board, that shareholder is deemed to have control.

In the year under review, the WACKER Group was affected by the disclosure obligations under IAS 24 with respect to the business relations with Wacker Chemie AG's major shareholders and its Executive and Supervisory Board members. The principles of IAS 24 also apply to all transactions with non-consolidated subsidiaries, associates and joint ventures, since Wacker Chemie AG exercises significant influence over them.

Dr. Alexander Wacker Familiengesellschaft mbH, Munich, informed Wacker Chemie AG on June 7, 2006, that it holds over 50 percent of the voting shares in Wacker Chemie AG. Blue Elephant Holding GmbH, Pöcking, informed Wacker Chemie AG on April 12, 2006, that it holds over 10 percent of the voting shares in Wacker Chemie AG.

The WACKER Group is controlled by its majority shareholder, Dr. Alexander Wacker Familiengesellschaft mbH, which holds over 50 percent of the voting shares in Wacker Chemie AG.

The provision of services between Wacker Chemie AG and its majority shareholder, Dr. Alexander Wacker Familiengesellschaft mbH, as well as with the shareholders of Dr. Alexander Wacker Familiengesellschaft mbH and their close family members, is of subordinate importance, and concerns, to a minor extent, the renting of office

space and exchange of services. None of these services is of significant business scope. These transactions are conducted at arm's length.

Further, WACKER Group companies have not conducted any material transactions with members of Wacker Chemie AG's Executive or Supervisory Boards or with any other key management personnel or with companies of whose executive or supervisory bodies these persons are members. The same applies to close family members of the aforementioned persons.

Wacker Chemie AG's pension fund is also considered a related party pursuant to IAS 24. The provision of services takes place between the two entities in the area of company pension plan benefits.

WACKER makes payments to plan assets to cover pension obligations. Wacker Chemie AG also rents the headquarters building and the land on which it stands from a subsidiary of the pension fund. Since January 1, 2019, WACKER has accounted for this rental agreement as a lease in accordance with IFRS 16. As of December 31, 2019, the lease liabilities totaled €48.1 million. Interest expense amounted to €0.6 in 2019. In the previous year, there was a rental expense of €4.4 million. Additional liabilities of €2.7 million (Dec. 31, 2018: €1.2 million) mainly related to outstanding contributions.

Further detailed information has been published in the German register of companies.

» www.unternehmensregister.de

Business with joint ventures and associates, the pension fund, and non-consolidated subsidiaries is conducted under conditions that are customary between outside third parties (arm's length transactions). Contractually agreed transfer-price formulas have been defined for joint-venture and associated-company product shipments.

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Related Party Disclosures

€ million	2019				2018			
	Income	Expenses	Receivables	Liabilities	Income	Expenses	Receivables	Liabilities
Associates	148.0	133.4	7.9	16.1	177.8	141.8	14.7	18.6
Joint ventures	4.7	1.4	1.0	0.2	7.3	1.2	0.7	0.1

Transactions with joint ventures and associates relate to such supplies and services that arise in the normal course of business (for example in connection with sales revenue, license revenue and administrative expense allocations). Joint ventures and associates submitted invoices for material purchases and commissions. Any guarantees or other security pledges are reported under Other Financial Obligations.

» See Note 17

In addition, there was a loan to an associate totaling €91.1 million (versus €89.6 million the year before), €50.8 million of which was recognized as a current financial receivable.

Information Regarding Compensation for the Supervisory and Executive Boards:

Compensation for the Executive and Supervisory Boards

€	Fixed compensation	Variable compensation	Retirement benefit plan ¹	Total
Executive Board compensation 2019	2,910,069	3,047,500	1,403,332	7,360,901
Executive Board compensation 2018	2,717,541	3,986,867	1,270,498	7,974,906
Pension commitments for active members of the Executive Board 2019				36,731,498
Pension commitments for active members of the Executive Board 2018				30,768,564
Compensation for former members of the Executive Board and their surviving dependents 2019				2,255,993
Compensation for former members of the Executive Board and their surviving dependents 2018				1,963,723
Pension commitments for former members of the Executive Board and their surviving dependents 2019				35,727,056
Pension commitments for former members of the Executive Board and their surviving dependents 2018				33,981,707
Supervisory Board compensation 2019	2,159,877	–	–	2,159,877
Supervisory Board compensation 2018	2,161,685	–	–	2,161,685

¹ The compensation for retirement benefits is based on service cost. Interest expense amounted to €609,219, after €587,097 in the prior year.

The compensation report is part of the management report and contains detailed information on Executive Board compensation which, according to German commercial law (HGB), forms part of the notes.

Other business relations with members of the Supervisory and Executive Boards comprise the purchase and sale of shares in Wacker Chemie AG. Such transactions take place on customary market terms and conditions. These transactions were published both in the German register of companies and on the Wacker Chemie AG website.

» <https://www.wacker.com/cms/en-de/about-wacker/investor-relations/corporate-governance/directors-dealings.html>

The members of Wacker Chemie AG's Supervisory Board and Executive Board are listed in the Further Information section.

25 Events after the Balance Sheet Date

On February 20, 2020, WACKER announced it will save €250 million annually by cutting non-personnel costs and streamlining its organizational structure. Achieving this goal is expected to include a workforce reduction of more than 1,000 by the end of 2022. The focus of cutbacks will be at the company's sites in Germany. The job cuts are to be attained in a socially responsible manner, without layoffs.

The Group's legal and organizational structure remained unchanged.

Munich, March 4, 2020

Wacker Chemie AG

Rudolf Staudigl

Christian Hartel

Tobias Ohler

Auguste Willems

Declaration by the Executive Board on Accounting Methods and Auditing

The Executive Board is responsible for preparing Wacker Chemie AG's consolidated financial statements and combined management report. WACKER's consolidated financial statements were prepared in compliance with the rules published in London by the International Accounting Standards Board (IASB) and endorsed by the European Union. WACKER has set up effective internal monitoring and steering systems to guarantee that the combined management report and the consolidated financial statements comply with the applicable rules and procedures of proper corporate reporting. The internal auditing division continuously examines the reliability and workability of the monitoring and steering systems on a worldwide basis. KPMG AG Wirtschaftsprüfungsgesellschaft has audited Wacker Chemie AG's consolidated financial statements and Group management report and granted them an unqualified certificate. WACKER's consolidated financial statements, its combined management report and the auditors' report were discussed in detail by the Supervisory Board's Audit Committee at its meeting on February 27, 2020. For information about the Supervisory Board's audit, please refer to its report.

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Assurance by the Legal Representatives in Accordance with Sections 297 (2) and 315 (1) HGB

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the Group's net assets, earnings and financial position, and the combined management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the Group's expected development.

Munich, March 4, 2020
Wacker Chemie AG

Rudolf Staudigl

Christian Hartel

Tobias Ohler

Auguste Willems

Reproduction of the Independent Auditor's Report

As a result of our audit, we are issuing the following unqualified audit report.

Independent Auditor's Report

To Wacker Chemie AG, Munich

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of Wacker Chemie AG and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2019, the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2019 and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the report on the position of the Company and the Group for the financial year from January 1 to December 31, 2019. In accordance with German commercial law, we have not audited the sections of the combined management report mentioned below under "Other Information" of this Independent Auditor's Report.

In our opinion, on the basis of the knowledge obtained in the audit,

— the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2019, and of its financial performance for the financial year from January 1 to December 31, 2019, and

— the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the management report does not cover the sections of the combined management report mentioned below under "Other Information."

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year January 1 to December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Impairment testing of property, plant and equipment in the WACKER POLYSILICON segment

For further information on the presentation of the WACKER POLYSILICON division in the reporting year, please refer to “Segment Information by Division” in the consolidated financial statements and “Segments” reporting in the combined management report. Please refer to the presentation in the notes (‘Accounting and Valuation Principles’) for information on the accounting policies applied.

The Financial Statement Risk

The carrying amount of assets in the WACKER POLYSILICON segment was EUR 1.3 billion as at the reporting date. Business performance of the WACKER POLYSILICON segment was influenced in the past by fluctuating market prices for polysilicon and in financial year 2019 by a decline in market prices for polysilicon. The recovery in solar-grade polysilicon prices expected by the market in 2019 did not materialize due to the high excess capacity built up by Chinese manufacturers. This trend had an impact on earnings of the WACKER POLYSILICON segment. The production plants in Burghausen, Nünchritz and Charleston are assigned to this segment. This resulted in the recognition of a fiscal-year impairment on the segment’s property, plant and equipment in the amount of EUR 760 million.

Property, plant and equipment must be tested for impairment if there are specific indications of potential impairment. The recoverable amount of the item of property, plant and equipment (asset) concerned has to be estimated, i.e. the higher of its fair value less costs to sell and its value in use. WACKER based its calculation on value in use.

An indicator of the determined impairment was the current level of prices for polysilicon, which has a significant impact on the development of the division’s anticipated cash inflows and outflows according to the adopted operational plans. Operational planning and, thus, the assessment of whether property, plant and equipment of the WACKER POLYSILICON segment are impaired requires judgement and numerous forward-looking estimates – e.g. regarding the future demand of volumes based on the anticipated further

construction of photovoltaic plants and development of the semiconductor market, which are polysilicon’s main sales markets, as well as price developments, global expansion of polysilicon production capacities and the cash inflows and outflows anticipated as a result. Against this background, the consolidated financial statements pose the risk that the reporting-date amount of the existing impairment on the WACKER POLYSILICON segment’s property, plant and equipment was insufficient.

Our Audit Approach

We obtained an understanding of the Company’s process for the identification of indications of impairment as well as for the determination of recoverable amount based on explanations provided by staff of Corporate Accounting. We analysed the indications of impairment identified by the Company and assessed this on the basis of information obtained within the scope of our audit. We received the impairment test prepared by the Company for the WACKER POLYSILICON segment. By talking with the Executive Board, representatives of the WACKER POLYSILICON segment and Corporate Accounting, among others, we obtained an understanding of the planning process as well as of the assumptions and parameters used for measurement. By involving our valuation experts, we assessed the assumptions and parameters as well as the Company’s valuation model for computational accuracy and compliance with IFRS. In addition, we compared the appropriateness of the assumptions underlying the anticipated cash inflows and outflows of the WACKER POLYSILICON segment, together with the business plan approved by the supervisory board, with general and sector-specific market expectations. The latter were particularly based on long-term projections of newly installed capacity for photovoltaics and on the trend in the semiconductor market.

Among other approaches, we used information from prior periods as well as current interim results to analyse adherence to budget.

Our Observations

The assumptions and parameters used by the Company for impairment testing of property, plant and equipment in the WACKER POLYSILICON segment, and the conclusions drawn therefrom, are appropriate.

Other Information

Management is responsible for the other information. Other information comprises:

- The corporate governance report of the Company and Group, as mentioned in the combined management report
- The non-financial statement in the form of a non-financial corporate report, as mentioned in the combined management report
- The information contained in the combined management report that is deemed not relevant to the management report and therefore not audited
- The other sections of the annual report, with the exception of the audited consolidated financial statements and the audited content of the group management report information, as well as our auditor's report

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

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- is materially inconsistent with the checked content of the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to a going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, and design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

Further Information



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Further Information

Supervisory Board, Executive Board,
Corporate Governance Report and Non-Financial Report

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Supervisory Board

Dr. Peter-Alexander Wacker^{1,2,3}

Chairman

Bad Wiessee
Former President & CEO
of Wacker Chemie AG, businessman

Chairman of the Supervisory Board
Blue Elephant Energy AG

Chairman of the Administrative Council and Board of Trustees
ifo Institute – Leibniz-Institut für Wirtschaftsforschung
an der Universität München e. V.

Manfred Köppl^{*,1,2,3}

Deputy Chairman

Kirchdorf
Chairman of the Employee Council, Burghausen Plant,
Wacker Chemie AG

Peter Áldozó*

Burghausen
Deputy Chairman of the Group Employee Council
of Wacker Chemie AG

Prof. Andreas H. Biagosch

Munich
Managing Director of Impacting I GmbH & Co. KG
and Impact GmbH

Member of the Board of Directors
Ashok Leyland, Chennai, India
Hinduja Leyland Finance, Chennai, India

Member of the Supervisory Board
Aixtron SE

Member of the Advisory Board
ATHOS Service GmbH
Lürssen Werft GmbH & Co. KG

Dr. Gregor Biebl

Munich
Director General
Bavarian State Chancellery

Matthias Biebl

Munich
Attorney and in-house lawyer
UniCredit Bank AG

Ingrid Heindl*

Reischach
Member of the Employee Council, Burghausen Plant,
Wacker Chemie AG

Konrad Kammergruber*

Burghausen
Director of Infrastructure Services, Wacker Chemie AG

Jörg Kammermann*

Burghausen
District Chairman of the IG BCE labor union, Altötting

Member of the Supervisory Board
CeramTec GmbH (until March 31, 2019)

Eduard-Harald Klein^{*,1}

Neuötting
Chairman of the Group and General Employee Councils
of Wacker Chemie AG

Franz-Josef Kortüm^{1,2,3}

Munich
Former Chairman of the Executive Board of Webasto SE

Chairman of the Supervisory Board
Webasto SE (until August 31, 2019)

Chairman of the Advisory Council
Brose Fahrzeugteile GmbH & Co. KG

Member of the Board of Directors
Autoliv Inc., USA

Barbara Kraller*

Taching
Deputy Chairwoman of the General Employee Council
of Wacker Chemie AG

Deputy Chairwoman of the Employee Council, Burghausen Plant,
Wacker Chemie AG

Seppel Kraus*

(until June 30, 2019)

Olching
Regional head of the IG BCE labor union, Bavaria

Member of the Supervisory Board
Novartis Deutschland GmbH
Hexal AG

Executive Board

Beate Rohrig*

(since July 18, 2019)

Unterhaching
Regional head of the IG BCE labor union, Bavaria

Member of the Supervisory Board

ADIDAS AG
Evonik Nutrition & Care GmbH

Ann-Sophie Wacker

Munich
Trainee lawyer

Dr. Susanne Weiss

Munich
Attorney and a partner in the law firm
Weiss Walter Fischer-Zernin

Chairwoman of the Supervisory Board

ROFA INDUSTRIAL AUTOMATION AG

Member of the Supervisory Board

Porr AG, Austria
Schattdecor AG (until June 24, 2019)
UBM Development AG, Austria

Chairwoman of the Advisory Council

Alu-Sommer GmbH, Austria

Prof. Ernst-Ludwig Winnacker

Munich
Professor emeritus of Biochemistry
at LMU Munich

Dr. Rudolf Staudigl

President & CEO

WACKER POLYSILICON
Executive Personnel
Corporate Development
Corporate Communications
Investor Relations
Corporate Auditing
Legal
Compliance
Retirement Benefits

Chairman of the Supervisory Board

Pensionskasse der Wacker Chemie VVaG

Deputy Chairman of the Supervisory Board

Groz-Beckert KG

Member of the Supervisory Board

TÜV Süd AG

Dr. Christian Hartel

WACKER POLYMERS
WACKER BIOSOLUTIONS
Human Resources (Personnel Director)
Corporate Engineering
Corporate Research & Development
Intellectual Property
Region: Asia

Dr. Tobias Ohler

Corporate Accounting and Tax
Corporate Controlling
Corporate Finance and Insurance
Information Technology
Procurement & Logistics
Region: The Americas

Chairman of the Supervisory Board

Siltronic AG

Member of the Supervisory Board

Pensionskasse der Wacker Chemie VVaG

Auguste Willems

WACKER SILICONES
Sales & Distribution
Site Management
Corporate Security
Environment, Health, Safety
Product Stewardship
Regions: Europe, Middle East

* Employee representative; subject to the rules of the German Trade Union Confederation (DGB) and of the Association of Employed Academics and Executives in the Chemical Industry (VAA) concerning the transfer of supervisory board compensation.

¹ Mediation Committee (Chairman: Dr. Peter-Alexander Wacker)

² Executive Committee (Chairman: Dr. Peter-Alexander Wacker)

³ Audit Committee (Chairman: Franz-Josef Kortüm)

Corporate Governance Report and Declaration on Corporate Management

Corporate governance is an important part of a company's success and of responsible corporate management and supervision. Wacker Chemie AG attaches great importance to the rules of proper corporate governance. In this report, the Executive Board provides details – also for the Supervisory Board – on corporate governance in accordance with Section 3.10 of the German Corporate Governance Code, as amended February 7, 2017 (the Code), and Sections 289f and 315d of the German Commercial Code (HGB).

Declaration of Conformity and Corporate Governance Reporting

In 2019, the Executive Board and the Supervisory Board dealt intensively with the company's corporate governance and the recommendations of the Code, as amended February 7, 2017. The Executive and Supervisory Boards resolved in December 2019 to issue the following Declaration of Conformity, which is available to the general public on the company's website.

Declaration of Conformity 2019 Issued by the Executive Board and Supervisory Board of Wacker Chemie AG

1. General Declaration Pursuant to Section 161 of the German Stock Corporation Act (AktG)

In December 2018, the Executive Board and the Supervisory Board of Wacker Chemie AG issued their most recent declaration of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG). Since that time, Wacker Chemie AG has complied with the recommendations of the German Corporate Governance Code (the Code) as amended on February 7, 2017, with the exceptions listed in the following, and will continue to comply with the recommendations of the Code in said version, with the following exceptions.

2. Exceptions

a) D&O Insurance Deductible for Supervisory Board Members (Section 3.8 (2))

German law and a company's articles of association set clear limits with regard to a supervisory board's ability to exert influence on the business activities of a stock corporation. Pursuant to Section 76 (1) of the German Stock Corporation Act, the executive board has direct responsibility for managing the corporation. The

supervisory board is instrumental in defining the main features of corporate strategy. However, beyond this contribution, the supervisory board's abilities are limited in terms of influencing the implementation of corporate strategy or operations. The same applies to measures taken to avert damage or loss to the company. Furthermore, since our Supervisory Board members receive only a relatively small amount for reimbursement of expenses compared to our Executive Board compensation, we do not deem the agreement of a deductible reasonable for members of our Supervisory Board.

b) Forward-Looking Assessment Basis for Variable Compensation of Executive Board Members (Section 4.2.3 (2))

The variable components of the Executive Board members' compensation are calculated on a three-year (= multiyear) assessment basis. Furthermore, 15 percent of the variable compensation is paid in the form of shares that are subject to a holding period of two years. Even if the assessment basis is not essentially forward-looking, we are of the opinion that our compensation system is balanced and suitable for setting the right incentives for a sustainable corporate policy. Our compensation system ensures that our Executive Board members participate in positive and negative developments at the company over a longer period – by means of the share component on the one hand and the average assessment over a three-year period on the other.

c) Formation of a Nomination Committee within the Supervisory Board (Section 5.3.3)

A supervisory board is required to establish a nomination committee that is exclusively composed of shareholder representatives and whose task it is to make recommendations to the supervisory board with regard to candidates suitable for proposal to the annual shareholders' meeting.

We do not comply with this recommendation because, in view of our shareholder structure, we do not believe that the formation of such a committee is appropriate. Due to the majority situation, nominations to the Supervisory Board must be agreed with the majority shareholder in any case, so that an additional nomination committee would not serve to increase efficiency.

d) Defining Concrete Objectives Regarding the Number of Independent Members of the Supervisory Board (Section 5.4.1 (2))

The Supervisory Board of Wacker Chemie AG, as it is composed at present, meets the requirements of the Code regarding an adequate number of independent members. The Supervisory Board will continue to ensure that, in

future elections, it recommends to the shareholders what it considers to be an appropriate number of independent candidates. Additionally defining a concrete objective in this regard would not only limit the choice of suitable candidates for the Supervisory Board, but also restrict the shareholders' right to elect those Supervisory Board members whom they consider to be the most suitable. For these reasons, we do not comply with this recommendation.

e) Limit to Supervisory Board Members' Term of Office
(Section 5.4.1 (2))

According to this recommendation, the supervisory board shall determine a general limit to its members' term of office. A generally applicable term limit of this sort is not required in our opinion, as we consider an individual analysis of our Supervisory Board members to be more effective. This particularly applies, since the Code provides for self-inspection of the supervisory board and its members anyway as part of the regular examination of efficiency. Furthermore, a general term limit would restrict the majority shareholder's freedom to choose representatives on the Supervisory Board at its own discretion in fulfillment of its corporate responsibility.

f) Curriculum Vitae of Supervisory Board Members
(Section 5.4.1 (5))

According to this recommendation, proposals for candidates for the supervisory board should be accompanied by a curriculum vitae, while the résumés of existing members should be published on the company's website. We fulfill the legal requirements regarding the proposals for candidates. Furthermore, the annual report includes the essential information on our Supervisory Board members. We believe that such information is sufficient. We do not see what additional merit a curriculum vitae could have – in particular when taking into account the rights of privacy of our Supervisory Board members.

g) Time Limit Placed on Applications for the Judicial Appointment of a Supervisory Board Member
(Section 5.4.3)

According to this recommendation, applications for the judicial appointment of a supervisory board member shall be limited in time up to the next annual shareholders' meeting.

We do not comply with this recommendation. Proposals for candidates to be appointed by the court are agreed with the majority shareholder beforehand anyway. In view of the majority situation, the election of this same candidate at the next Annual Shareholders' Meeting would merely constitute a confirmation of his/her appointment, which we consider redundant.

h) Announcement of Proposed Candidates for the Chair of the Supervisory Board to Shareholders
(Section 5.4.3)

According to this recommendation, shareholders shall be informed of any candidates for the supervisory board chair even though, as a rule, the supervisory board has not yet been appointed. Under German law, the supervisory board chair must be elected by, and from among, the supervisory board members. There is no legal requirement to announce the candidates for the chair from among a yet-to-be-appointed group of supervisory board members. Furthermore, this would result in a de facto predetermination that is also not provided for under German law. For these reasons, we do not comply with this recommendation.

Corporate Governance Reporting

Shareholders and Annual Shareholders' Meeting

Transparent Information for Shareholders and the Public
WACKER's aim is to inform all of the company's target groups – shareholders, shareholder representatives, analysts and the media – as well as the interested general public promptly and without preference. We regularly publicize important company dates in a financial calendar published in our Annual Report, in the interim reports and on our website. Capital market participants are in close contact with our Investor Relations team. We inform investors and analysts about the current and future development of business in telephone conferences held whenever a quarterly report is published. We regularly attend roadshows and investors' conferences. Once a year, we organize an event for analysts. Important presentations are available on the internet, as well as all press releases and ad-hoc disclosures in both German and English, the online version of the Annual Report, all interim reports and the Sustainability Report. Further information is provided by our online customer magazine, media library and Podcast Center.

» www.wacker.com

Annual Shareholders' Meeting

The Annual Shareholders' Meeting provides an efficient and inclusive forum for informing shareholders about the company's situation. Even before the Annual Shareholders' Meeting begins, shareholders receive important information about the previous fiscal year in the Annual Report. The agenda items are described and the conditions of attendance explained in the invitation to the Annual Shareholders' Meeting. The notice of the Annual Shareholders' Meeting – together with all legally prescribed reports and documents, including the Annual Report (of which the consolidated financial statements and the combined management report form part) – as well as the annual financial statements of Wacker Chemie AG

are also available on the company's website. After the Annual Shareholders' Meeting, we publish the attendance figures and the results of the votes on the internet. All these communication measures contribute to the regular exchange of information with our shareholders. WACKER helps its shareholders exercise their voting rights by giving them the option of casting their vote either in person or by proxy. Proxies are available to exercise shareholders' voting rights as instructed and can also be contacted during the Annual Shareholders' Meeting.

Working Methods of the Executive and Supervisory Boards

Wacker Chemie AG has a dual management system as prescribed by the German Stock Corporation Act (AktG). It consists of the Executive Board, which manages the company, and the Supervisory Board, which supervises and advises the Executive Board in its management of the company. These two bodies are kept strictly separate from one another with regard to both their membership and their spheres of competence. The Executive and Supervisory Boards collaborate closely, however, to ensure WACKER's sustainable long-term success.

Executive Board

The Executive Board currently consists of four members. It bears direct responsibility for managing the company and represents Wacker Chemie AG in all dealings with third parties. The Executive Board's actions and decisions are driven by the company's interest and the aim to sustainably increase the Group's value. With this goal in mind, the Executive Board determines the WACKER Group's strategic alignment. It then steers and monitors this by allocating funds, resources and capacities, and by supporting and overseeing the operating units. The Executive Board also ensures compliance with legal requirements and an appropriate system of risk management and control.

While the members of the Executive Board bear joint responsibility for managing the company, each individual member is directly responsible for managing his/her respective unit. All Executive Board decisions require a simple majority. In the case of a tie of votes, the president & CEO has the deciding vote. However, he/she does not have the right to veto Executive Board resolutions.

Close Collaboration between the Executive Board and the Supervisory Board

The Executive Board and the Supervisory Board work together closely to promote the interests of the company. Their common goal is the sustainable growth of the company and the enhancement of its value. The Executive Board reports to the Supervisory Board and the Audit Committee regularly, promptly and comprehensively

on all relevant issues of strategy, planning, business development, risk exposure, risk management and compliance. The Supervisory Board chairman likewise maintains contact with the Executive Board, in particular with the president & CEO, in the periods between meetings, consulting with that body on the above-mentioned issues. The Executive Board explains any deviations from approved business plans and objectives to the Supervisory Board and gives reasons for these deviations.

The Rules of Procedure for Wacker Chemie AG's Executive Board stipulate that certain measures require the consent of the Supervisory Board before their implementation. These include approving the annual budget (including financial and investment planning), acquiring and disposing of shares in companies, establishing new production or business units, or suspending existing ones, and concluding sizable long-term loans.

Supervisory Board

The Supervisory Board appoints, oversees and advises the Executive Board and is directly involved in any decisions of crucial importance to WACKER. Fundamental decisions on the company's development require Supervisory Board approval.

Supervisory Board Composition

The Supervisory Board comprises 16 members. In compliance with the German Co-Determination Act (MitbestG), it has an equal number of shareholder and employee representatives. Shareholder representatives are elected by the Annual Shareholders' Meeting and employee representatives by the employees, as stipulated by the German Co-Determination Act. As a rule, the term of office is about five years.

Targets for the Composition and Skills Profile of the Supervisory Board of Wacker Chemie AG

WACKER has always placed importance on having highly qualified individuals sit on its Supervisory Board. In compliance with the recommendation made in Item 5.4.1 of the Code, WACKER's Supervisory Board resolved in 2010 to set itself concrete objectives with respect to its composition. In September 2017, the Supervisory Board revised these and resolved on the following new objectives for its composition (including a profile of skills for the entire Supervisory Board), taking into account the recommendations of the Code:

The Supervisory Board shall be composed in such a way that all its members have the knowledge, skills and professional experience required to properly perform their duties.

(I) Targets for Composition**1. International Expertise**

In view of the international nature of the company's business activities, the Supervisory Board shall have an appropriate number of members – but at least one – with international experience.

2. Prevention and Handling of Conflicts of Interest

The Supervisory Board's Rules of Procedure already contain extensive provisions on members' conflicts of interest. In addition, the Supervisory Board actively strives to prevent conflicts of interest that are material and not merely of a temporary nature, and takes this goal into consideration when making recommendations to the Annual Shareholders' Meeting.

3. Age Limit for Supervisory Board Members

The Supervisory Board's Rules of Procedure provide for a standard retirement age of 80 for its members.

4. Diversity

As regards the diversity of its composition, the Supervisory Board strives to take account of different professional experience, professional expertise and educational backgrounds and, in particular, to ensure appropriate representation of women and men. In accordance with Section 96 (2) of the German Stock Corporation Act (AktG), at least 30 percent of the members of the supervisory board must be women and at least 30 percent men.

(ii) Skills Profile

When filling the positions on our Supervisory Board, we strive to achieve a mix of young and old, industry insiders and those from other sectors, and different professional backgrounds. We expect all members to be willing and able to make the necessary commitment to their Supervisory Board duties. Beyond that, the Supervisory Board as a whole must have the skills, knowledge and experience that are important to the WACKER Group's business activities and that enable it to properly oversee the company and provide professional advice to the Executive Board. This includes the following:

- The Supervisory Board should have sufficient members with the necessary expertise in corporate management, accounting, financial controlling, risk management, corporate governance and compliance.
- The Supervisory Board as a whole must be familiar with the chemical industry (Section 100 (5) AktG).
- At least one member of the Supervisory Board must have expertise in the fields of accounting or auditing (Section 100 (5) AktG).

The Supervisory Board does not comply with the recommendation made in Item 5.4.1 of the Code to set a general term limit for the length of service of its members. The reasons for this decision are given in the Declaration of Conformity of December 2019.

The Supervisory Board believes that it comprises an adequate number of independent members. All of its shareholder representatives are classed as independent within the meaning of Item 5.4.2 of the Code. For the reasons given in the Declaration of Conformity of December 2019, we do not comply with the additional recommendation made in Item 5.4.2 of the Code to name a specific target number of independent members.

The Supervisory Board will take into account the objectives it has set as well as its profile of skills when making its nomination proposals to the Annual Shareholders' Meeting. The current composition of the Supervisory Board complies with the objectives set in September 2017.

Committees Increase the Supervisory Board's Efficiency

The Supervisory Board has constituted three professionally qualified committees to help it perform its duties optimally. The work of those committees is reported on regularly at Supervisory Board meetings.

The Executive Committee prepares the Supervisory Board's personnel decisions, especially the appointment and dismissal of Executive Board members and the nomination of the president & CEO. In addition, it negotiates contracts with Executive Board members and develops a compensation system that the full Supervisory Board then uses as a basis for determining the compensation for Executive Board members. In 2019, the Executive Committee consisted of the Chairman of the Supervisory Board, Dr. Peter-Alexander Wacker, and Supervisory Board members Manfred Köppl and Franz-Josef Kortüm.

The Audit Committee does the groundwork for the Supervisory Board's decision on the adoption of the annual financial statements and the approval of the consolidated financial statements. To this end, the committee is obliged to pre-audit the annual financial statements, the consolidated financial statements, the combined management report and the proposal on appropriation of profits. It is also tasked with pre-auditing the separate non-financial report (pursuant to Sections 289b and 315b of the HGB). In addition, it discusses and examines the half-yearly financial reports and the quarterly figures. The Audit Committee gives the Supervisory Board a well-founded recommendation as to which auditors it should propose to the Annual Shareholders' Meeting. In accordance with the resolution of the Annual Shareholders' Meeting, it awards

the auditing contract to the auditors and determines the focus of auditing. It then monitors the audit, in particular the auditors' independence and the services they deliver. Above and beyond that, the Audit Committee reviews the accounting process and the effectiveness of the internal control, risk management and auditing systems, as well as compliance-related issues. The members of this committee in 2019 were Franz-Josef Kortüm (as chairman), Dr. Peter-Alexander Wacker and Manfred Köppl.

In addition, there is the Mediation Committee (mandated by Section 27 (3) of the German Co-Determination Act (MitbestG)). Its duties are to prepare proposals for the Supervisory Board concerning the appointment, and revocation of appointments, of Executive Board members in cases where they fail to achieve the required two-thirds majority of the votes of the Supervisory Board members in the first ballot. In 2019, the committee comprised Dr. Peter-Alexander Wacker (as chairman), Manfred Köppl, Franz-Josef Kortüm and Eduard-Harald Klein.

Key Corporate Management Practices

Compliance as a Key Managerial Duty of the Executive Board

At WACKER, managerial and monitoring duties include ensuring that the company complies with legal requirements and that employees observe internal company regulations. WACKER's compliance management system is regularly reviewed and adapted.

These tasks are the responsibility of the compliance management department. For a detailed description of compliance management, please refer to the Risk Management Report on page 75. The company has appointed and trained compliance officers in Germany, the USA, China, Japan, India, South Korea, Brazil, Mexico, Norway, Singapore, Russia and the United Arab Emirates, who hold regular training courses to inform employees of key legal provisions and internal regulations. They also serve as contacts whenever employees have questions or need advice, information and training relating to compliance.

Principles of Corporate Ethics

- Beside our vision and goals, our ethical principles form the third pillar of WACKER's corporate policy guidelines. These principles – embedded in five separate codes – govern how the company goals should be achieved. A set of rules consisting of regulations and instructions supplement the codes.

- Code of Conduct: contains our principles for dealing with business partners and third parties. It also governs the handling of information, confidentiality and data security, the prevention of money laundering, and the separation of personal and business interests.
- Code of Innovation: specifies our principles concerning research and development, partnerships, patents and innovation management.
- Code of Teamwork & Leadership: outlines our understanding of teamwork and leadership. Key aspects here include trust and esteem, motivation and success, recognition and development, teamwork and equal opportunity, work-life balance and the positive example set by managerial employees.
- Code of Safety: defines our safety culture and sets safety guidelines for workplaces, facilities, and products and their transport.
- Code of Sustainability: lists principles for sustainability to be adhered to by R&D, procurement and logistics, production and products, and describes our commitment to society.

» The codes are available at: https://www.wacker.com/cms/en/wacker_group/wacker_facts/policy/policy.jsp

Responsible Care® and the Global Compact – Integral Parts of Corporate Management

Two voluntary global initiatives form the basis for sustainable corporate management at WACKER: the chemical industry's Responsible Care® initiative and the UN's Global Compact. WACKER has been an active member of the Responsible Care® initiative since 1991. Program participants undertake to continually improve health, safety and environmental performance on a voluntary basis – even in the absence of statutory requirements. WACKER is equally committed to the UN's Global Compact initiative. We observe the Global Compact's ten principles, which address social and environmental standards, anticorruption and the protection of human rights. We also expect our suppliers to respect the principles of the Global Compact, and we evaluate them on this point in our risk assessments.

In 2011, WACKER created an internal Corporate Sustainability department, which implements the company's voluntary commitments under Responsible Care® and the Global Compact, and coordinates its sustainability activities worldwide.

Social Commitments

Companies can be commercially successful only if they have society's trust. Consequently, WACKER is serious about its social responsibilities toward communities near its sites and wherever people are in need around the world. We regularly promote and support a wide variety of charitable projects, organizations and initiatives. Our commitment covers activities relating to science, education, sports and various charities.

Further Information on Corporate Governance at WACKER

Compliance with the Provisions of Art. 17 of MAR

We comply with the provisions of Art. 17 of MAR (EU regulation No. 596/2014 – Market Abuse Regulation). For a number of years, we have maintained an ad-hoc publicity coordination unit in which representatives of various specialist areas examine issues for their ad-hoc relevance. In this way, we guarantee that potential insider information is handled in accordance with the law. Employees who have access to insider information as part of their jobs are included in insider lists.

Share Dealings by the Executive and Supervisory Boards

Persons discharging managerial responsibilities (at Wacker Chemie AG, these are members of the Executive and Supervisory Boards) as well as persons closely associated with them are obligated under Art. 19 of MAR to notify the German Financial Supervisory Authority (BaFin) and the company within three business days of transactions conducted on their own account relating to the shares or debt instruments of that company or to derivatives or other financial instruments linked thereto. In 2019, however, a reporting obligation existed only where the total volume of the transactions made by the person concerned reached or exceeded €5,000 within a calendar year.

» The transactions reported to Wacker Chemie AG are published in the proper manner; more detailed information can be found at: <https://www.wacker.com/cms/en-de/about-wacker/investor-relations/corporate-governance/directors-dealings.html>

Dealing Responsibly with Opportunities and Risks

Dealing responsibly with risks is an important part of good corporate governance. WACKER has in place an opportunity and risk management system to regularly identify and monitor material risks and opportunities. Its objective is to recognize risks at an early stage and minimize them through systematic risk management. The Executive Board informs the Supervisory Board regularly about existing risks and their development. The Audit Committee regularly reviews the accounting process and the effectiveness of the internal control, risk management and auditing systems. It is also involved in auditing the financial statements. The opportunity and risk management system is continuously being enhanced and adapted to meet changing conditions.

Accounting and Auditing

As stipulated by the Code, we have agreed with the auditors, KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, that the Chairman of the Supervisory Board shall be informed without delay during the audit about any grounds for disqualification and/or bias. In addition, the auditors shall immediately report all significant discoveries and events which concern the Supervisory Board's duties. If, in the course of their audit activities, the auditors establish facts that reveal errors in the Executive and Supervisory Boards' Declaration of Conformity to the Code pursuant to Section 161 of the German Stock Corporation Act (AktG), the Supervisory Board shall be notified accordingly and/or a note included in the audit report.

D&O Insurance

WACKER has concluded a financial liability insurance policy that also covers the activities of the Executive and Supervisory Board members (i.e. D&O insurance). This insurance provides for a statutory deductible for the members of the Executive Board.

Supporting the Participation of Women in Executive Positions

Effective May 1, 2015, the German Act on Equal Participation of Women and Men in Executive Positions in the Private and the Public Sector calls for supervisory boards – such as that of Wacker Chemie AG – to be composed of at least 30 percent female members and at least 30 percent male members. A supervisory board as a whole must comply with this gender ratio unless the representatives of either the shareholders or the employees object thereto pursuant to Section 96 (2) sentence 3 of the German Stock Corporation Act (AktG). Both the shareholder and employee representatives on Wacker Chemie AG's Supervisory Board objected to enforcement of the statutory gender ratio for the Supervisory Board as a whole. As a result, there must be at least two women and two men represented on both the shareholder representative and employee representative sides of the Supervisory Board.

Wacker Chemie AG exceeds the statutory requirements by having two women as shareholder representatives and three as employee representatives.

The act also requires Wacker Chemie AG to specify target values for the proportion of women on the Executive Board and in the two management levels below the Executive Board. The target values for the Executive Board are set by the Supervisory Board and those for the two management levels below the Executive Board are set by the Executive Board.

The target value for the Executive Board (zero; deadline for implementation: June 30, 2022) has been achieved. The company also exceeded its target values for the two management levels below the Executive Board (first management level: 16 percent; second management level: 18 percent) by the deadline set (December 31, 2019).

In December 2019, the Executive Board of Wacker Chemie AG set new target values of 21 percent for the management level directly below the Executive Board and 20 percent for the second management level below the Executive Board, with a deadline for implementation of December 31, 2022, in both cases.

Diversity Strategy

1. Diversity Strategy for the Executive Board

The Executive Board of Wacker Chemie AG shall be composed in such a way that all its members have the knowledge, skills and experience required to manage a chemical company that is active in international markets. We are convinced that only a diverse group of individuals can do justice to this task. The decisive factor is achieving a balanced composition that reflects a cross-section of the duties involved.

Proceeding on this basis, the Supervisory Board mainly takes the following aspects of diversity into account when proposing new members of the Executive Board:

- High priority is accorded to different educational backgrounds and professional careers. The executive board of a chemical company must have members with scientific expertise and/or experience in the chemical industry. At the same time, knowledge and experience of accounting, financial management, corporate decision-making, planning and strategy are required, as is a profound understanding of the workings and requirements of the capital markets.
- What is more, in a global company like Wacker Chemie AG, different cultural backgrounds – or at least

obvious international and intercultural experience – are essential.

- A balanced age structure across the entire Executive Board is also important. The Supervisory Board's Rules of Procedure provide for a standard retirement age of 67, which must be taken into account when Executive Board members are appointed.
- We are convinced that mixed teams achieve better results – and that also means having women on the Executive Board. In this context, a whole range of measures has already been put in place across the company to raise the proportion of women in management positions.

The goal of the diversity strategy described above is to give the Executive Board an optimal composition to ensure the company is managed in a manner that is both successful and sustainable. A diverse composition guarantees that the Executive Board can assess all relevant issues with the appropriate expertise, view all material aspects from different standpoints and set the right priorities. The standard retirement age for Executive Board members ensures that the company can profit from the longstanding professional and life experience of individual members. At the same time, it enables younger managers to advance to the Executive Board and contribute new ideas and impetus.

The full Supervisory Board takes the diversity strategy into account when making appointments to the Executive Board. The Executive Committee, which is tasked with preparing the personnel decisions of the Supervisory Board, regularly discusses long-term succession planning for the Executive Board, and also takes account of the company's management staff planning in consultation with the Executive Board members.

The current composition of the Executive Board corresponds to the Supervisory Board's diversity strategy.

2. Diversity Strategy for the Supervisory Board

The diversity that the Supervisory Board wishes to see in its own composition is reflected in the goals and the profile of skills it adopted in September 2017 (see p. 174).

Accordingly, the diversity criteria of international and intercultural experience, a balanced age structure, and different professional experience, expertise and educational backgrounds are considered when positions on the Supervisory Board are filled. In addition, the Supervisory Board's Rules of Procedure provide for a standard retirement age of 80 for its members. In accordance with the statutory requirements, the Supervisory Board must also comprise at least 30 percent female members and 30 percent male members, and must have an equal number of shareholder and employee representatives.

The goal of the diversity strategy is to ensure that the Supervisory Board as a whole is able to effectively oversee and advise the Executive Board. A Supervisory Board whose members are diverse in line with above-mentioned criteria is better placed to assess topics from different standpoints, and to scrutinize the Executive Board's management of the company, its decisions and its strategy in a constructive and comprehensive manner. The retirement-age provision enables members to contribute their longstanding professional and life experience for the good of the company. At the same time, it ensures that younger individuals can advance to the Supervisory Board at regular intervals.

The Supervisory Board gives due consideration to this diversity strategy when presenting its recommendations for candidates to the Annual Shareholders' Meeting – most recently at the Meeting held in 2018. What is more, during its regular examinations of efficiency, the Supervisory Board conducts a self-evaluation that also includes aspects such as its own composition and diversity.

The Supervisory Board currently meets the targets as regards its composition and fulfills both the skills profile and diversity strategy. With the appointment of Ms. Beate Rohrig to the Supervisory Board in July 2019, the latter now has five female members – two shareholder representatives and three employee representatives. This exceeds the statutory requirements for cases where the employer and employee sides must meet the gender requirements separately.

Compensation Report

The following compensation report forms part of the combined management report and of the audited consolidated financial statements.

Compensation System for the Executive Board

On the basis of preparatory input from the Executive Committee, the full Supervisory Board is responsible for determining the individual compensation paid to members of Wacker Chemie AG's Executive Board.

In accordance with the Executive Board compensation system in effect since January 1, 2010, the Executive Board's compensation comprises the following key components:

(i) A fixed annual salary:

The fixed annual salary is paid in equal monthly installments.

(ii) A variable, performance-related bonus:

The amount of the variable bonus (long-term bonus), which is paid annually and in arrears, depends on the achievement of agreed annual Group targets set by the Supervisory Board for all Executive Board members. The bonus is calculated based on target achievement in the reporting year, as well as on average overall target achievement in the two years prior to the reporting year. The targets are based on the following key indicators: business value contribution, cash flow, target return, and return on capital employed (ROCE). The computational target bonus in the event of 100-percent target achievement during the evaluation period amounts to 180 percent of the average annual base salary in the last year of the evaluation period, while the maximum bonus amounts to 220 percent of the average annual base salary in the last year of the evaluation period. The Supervisory Board thus has the discretion to increase or reduce the calculated bonus by as much as 30 percent, taking into account all circumstances and the Executive Board member's individual performance. The Executive Board members are obligated to purchase Wacker Chemie AG shares for an amount equal to 15 percent of their annual gross bonus and to hold these for at least two years. First of all, the annual gross bonus is calculated, 15 percent of which is invested in shares. Any taxes payable are deducted from the remaining 85 percent of the annual gross bonus and the net amount disbursed to the Executive Board members. As a result, around 30 percent of the annual net bonus is accounted for by the stock component

and has a forward-looking, multiyear assessment basis. The exact percentage depends on each Executive Board member's personal tax situation.

(iii) A contribution to retirement benefits:

The members of the Executive Board are entitled to payment of an annual retirement pension should the event insured against occur, i.e. reaching retirement age or suffering permanent occupational disability. The amount of the pension is calculated on the basis of the last pensionable fixed annual salary received and the length of Executive Board membership. A percentage of the pensionable base salary is defined as a basic amount and adjusted by means of an annual percentage rate of increase for each year of service. Entitlement to a pension presupposes at least five years of service on the Executive Board. Since 2016, increases in the annual salaries of Dr. Rudolf Staudigl and Auguste Willems have taken the form of additional fixed, non-pensionable salary components and thus have no influence on the calculation of their pensions – though they do have an effect on the calculation of their long-term bonuses (see (ii) above).

The company grants the members of the Executive Board appropriate insurance coverage, in particular D&O insurance, with a deductible as stipulated in the German Stock Corporation Act (AktG).

If they leave the company, Executive Board members are subject to a twelve-month obligatory waiting period, during which they are paid competitive-restriction compensation. The competitive-restriction compensation is calculated as 50 percent of the member's latest overall annual compensation (average of the last three years). Any pension received is set off against the competitive-restriction compensation.

If Executive Board membership is prematurely terminated without good cause, the contracts with Executive Board members specify that any compensatory payments shall be limited to a maximum of two full annual salaries. This is referred to as the severance payment cap.

Total Compensation for the Members of the Executive Board for 2019

The current level of each Executive Board member's compensation is listed in the tables below, which follow the model tables recommended by the German Corporate Governance Code.

No changes were made to the Executive Board members' compensation in 2019.

The following table shows the payments for fiscal 2019 from fixed compensation, additional benefits and variable compensation, as well as pension expenses.

Payments in the Year under Review (Compensation for 2019 and 2018)

€	2019	2018	2019	2018
	Dr. Rudolf Staudigl President & CEO		Auguste Willems Executive Board member	
Fixed compensation ¹	880,000	850,000	610,000	610,000
Additional benefits ²	64,464	93,416	56,047	49,838
Total	944,464	943,416	666,047	659,838
Multiyear variable compensation ³	1,012,000	1,411,000	701,500	1,012,600
Total	1,956,464	2,354,416	1,367,547	1,672,438
Pension expenses ⁴	—	—	593,979	588,900
Total compensation	1,956,464	2,354,416	1,961,526	2,261,338
	Dr. Tobias Ohler Executive Board member		Dr. Christian Hartel Executive Board member	
Fixed compensation ¹	580,000	580,000	580,000	430,000
Additional benefits ²	81,225	51,591	58,333	52,696
Total	661,225	631,591	638,333	482,696
Multiyear variable compensation ³	667,000	962,800	667,000	600,467
Total	1,328,225	1,594,391	1,305,333	1,083,163
Pension expenses ⁴	491,025	473,620	318,328	207,978
Total compensation	1,819,250	2,068,011	1,623,661	1,291,141

¹ Calculation of the pensionable portion of the compensation excluded an amount of €80,000 (Dr. Staudigl) and €30,000 (Mr. Willems) in 2019.

² Additional benefits include the use of a company car, social insurance allowances and other cost reimbursements.

³ Multiyear refers to the assessment basis. The Executive Board members purchase Wacker Chemie AG shares in the amount of 15 percent of their annual gross bonus (holding period of two years). Once determined, the fixed bonus amount calculated using a three-year assessment basis is not influenced by subsequent developments.

⁴ Service cost, pursuant to IAS 19, from pension commitments and other pension-related benefits.

The following table shows the value of compensation and benefits granted for fiscal 2019. It also lists the minimum and maximum attainable values.

Compensation and Benefits for the Year under Review (Targets)

€	2019 (target)	2019 (min.)	2019 (max.)	2018 (target)	2019 (target)	2019 (min.)	2019 (max.)	2018 (target)
	Dr. Rudolf Staudigl President & CEO				Auguste Willems Executive Board member			
Fixed compensation ¹	880,000	880,000	880,000	850,000	610,000	610,000	610,000	610,000
Additional benefits ²	64,464	64,464	64,464	93,416	56,047	56,047	56,047	49,838
Total	944,464	944,464	944,464	943,416	666,047	666,047	666,047	659,838
Multiyear variable compensation ³	1,434,400	634,480	2,013,440	1,623,500	994,300	439,810	1,395,680	1,165,100
Total	2,378,864	1,578,944	2,957,904	2,566,916	1,660,347	1,105,857	2,061,727	1,824,938
Pension expenses ⁴	—	—	—	—	593,979	593,979	593,979	588,900
Total compensation	2,378,864	1,578,944	2,957,904	2,566,916	2,254,326	1,699,836	2,655,706	2,413,838
	Dr. Tobias Ohler Executive Board member				Dr. Christian Hartel Executive Board member			
Fixed compensation ¹	580,000	580,000	580,000	580,000	580,000	580,000	580,000	430,000
Additional benefits ²	81,225	81,225	81,225	51,591	58,333	58,333	58,333	52,696
Total	661,225	661,225	661,225	631,591	638,333	638,333	638,333	482,696
Multiyear variable compensation ³	945,400	418,180	1,327,040	1,107,800	945,400	418,180	1,327,040	687,967
Total	1,606,625	1,079,405	1,988,265	1,739,391	1,583,733	1,056,513	1,965,373	1,170,663
Pension expenses ⁴	491,025	491,025	491,025	473,620	318,328	318,328	318,328	207,978
Total compensation	2,097,650	1,570,430	2,479,290	2,213,011	1,902,061	1,374,841	2,283,701	1,378,641

¹ Calculation of the pensionable portion of the compensation excluded an amount of €80,000 (Dr. Staudigl) and €30,000 (Mr. Willems) in 2019.

² Additional benefits include the use of a company car, social insurance allowances and other cost reimbursements.

³ Multiyear refers to the assessment basis. The Executive Board members purchase Wacker Chemie AG shares in the amount of 15 percent of their annual gross bonus (holding period of two years). Once determined, the fixed bonus amount calculated using a three-year assessment basis is not influenced by subsequent developments. The actual level of target achievement in the two previous years was taken into consideration when the minimum and maximum values were calculated. The following values were set for 2019: a minimum value of 0 percent and a maximum value of 220 percent. The theoretically achievable minimum or maximum values are also influenced by the Supervisory Board's potential scope of discretion.

⁴ Service cost, pursuant to IAS 19, from pension commitments and other pension-related benefits.

Compensation for Former Members of the Executive Board or Their Surviving Dependents

€	2019	2018
Total	2,255,993	1,963,723

Pension Obligations for Executive Board Members

€	2019	2018
Pension obligations for active Executive Board members		
Total	36,731,498	30,768,564
Pension obligations for former members of the Executive Board or their dependents		
Total	35,727,056	33,981,707

Compensation of Supervisory Board Members

The compensation of Wacker Chemie AG's Supervisory Board members is governed by the company's Articles of Association.

In return for their work, the members of the Supervisory Board receive fixed annual compensation in the amount of €90,000, payable when the fiscal year expires, and are additionally refunded any VAT payable on their compensation. Supervisory Board members who join, or depart from, the Supervisory Board during the fiscal year receive the corresponding compensation pro rata temporis.

The compensation is multiplied by a factor of 3 for the Chairman of the Supervisory Board, by a factor of 2 for the Vice Chairman and for chairs of committees, and by a factor of 1.5 for members of committees. Multiple functions are ignored in this calculation.

The members of the Supervisory Board are compensated for any outlays incurred in connection with the execution of their duties with an annual lump sum of €20,000 and are also reimbursed for any VAT payable on that lump sum.

The company grants the members of the Supervisory Board appropriate insurance coverage; in particular, the company concludes a D&O insurance policy for the benefit of the Supervisory Board's members.

Supervisory Board Compensation

€	2019	2018
Fixed compensation ^{1,2}	2,159,877	2,161,685
Variable compensation	—	—
Total	2,159,877	2,161,685

¹ Fixed compensation includes the above-mentioned annual lump sum for expenses.

² The employee representatives are subject to the rules of the German Trade Union Confederation (DGB) and of the Association of Employed Academics and Executives in the Chemical Industry (VAA) concerning the transfer of supervisory board compensation.

Separate Non-Financial Statement Combined for the WACKER Group and for Wacker Chemie AG

Information on the WACKER Group

The Business Model of Wacker Chemie AG

WACKER is a global company with state-of-the-art specialty chemical products. The Group's business model and legal structure are described in detail in the combined management report in the Group Business Fundamentals section.

Report Framework and Auditing

Our sustainability reporting, as well as this separate non-financial report combined for the Group (hereinafter the "Report"), are guided by the sustainability reporting standards of the Global Reporting Initiative (GRI).

The Report constitutes the separate non-financial statement – as defined in Sections 315b, 315c and 289b through 289e of the German Commercial Code (HGB) – for both the WACKER Group and Wacker Chemie AG for fiscal 2019. The Report was examined by the Supervisory Board of Wacker Chemie AG. In compliance with the revised International Standard on Assurance Engagements 3000 (ISAE 3000 (Revised): "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information"), it was reviewed on behalf of the Executive Board by KPMG AG, Wirtschaftsprüfungsgesellschaft, to obtain a limited assurance engagement relating to the disclosures legally required in accordance with Sections 315b, 315c and 289b through 289e HGB.

All the references in this Report relate to more detailed information, with the exception of those relating to the Group management report.

Significance to WACKER of Sustainability and Other Non-Financial Performance Indicators

Sustainability has been firmly entrenched in our business processes for many years. Sustainable development means balancing economic, ecological and social factors in everything we do. The fact that we have made sustainability one of our strategic goals emphasizes its importance. As an innovative chemical company, WACKER makes a vital contribution to improving the quality of life around the world. We want to continue developing and supplying solutions that meet our own expectations – namely to add value for our customers and shareholders, and to achieve sustainable growth.

Sustainability also lies at the heart of our strategic medium-term plan for the WACKER Group through 2020, which we presented at the Capital Market Day in October 2016. One of our five strategic goals is to "focus even more strongly on sustainability."

Responsible Care® and the UN Global Compact

Our actions are guided by two voluntary global initiatives: the chemical industry's Responsible Care® initiative and the UN Global Compact. These form the basis for sustainable corporate management at WACKER. WACKER has been an active member of the Responsible Care® initiative since 1991 and, as a program participant, the company must act to continually improve health, safety and environmental performance on a voluntary basis – even in the absence of statutory requirements. As a member of the UN Global Compact, we actively support the goals of this, the world's most important and extensive initiative for responsible corporate management. The Global Compact addresses the protection of human rights, social and environmental standards, and the fight against corruption. We submit a progress report every year in April. All of the progress reports of recent years can be viewed on the UN Global Compact website.

» <https://www.unglobalcompact.org/what-is-gc/participants/10060-Wacker-Chemie-AG>

» The current progress report is also published on the WACKER website at: www.wacker.com/cms/en/wacker_group/sustainability/selbstverpflichtungen/global_compact.jsp

Principles of Corporate Ethics

Aside from our vision and goals, our ethical principles form the third pillar of WACKER's corporate policy guidelines. These principles are laid down in five corporate codes – including the Code of Sustainability – and are supplemented by a body of regulations and directives. They are mandatory for all employees worldwide. The content of the codes is described in detail in the corporate governance report.

» The codes can also be viewed on the WACKER website at: www.wacker.com/cms/en/wacker_group/wacker_facts/policy/policy.jsp

Integrated Management System

We control operational processes via our integrated management system (IMS). This system stipulates uniform standards throughout the Group for issues relating to quality, energy, environmental protection, and health and safety. We have our Group management system certified by an international certification organization to ensure its compliance with ISO 9001 (quality) and ISO 14001 (environmental protection) and, at our German sites, also with ISO 50001 (energy).

Our Group certification program helps us implement statutory and customer-specific rules, as well as our corporate standards, at all WACKER sites. Almost every WACKER production site is included in the ISO 9001 (quality) and ISO 14001 (environment) Group certificates. Exceptions are the Kolkata plant of WACKER Metroark Chemicals Pvt. Ltd., India, and the Tsukuba site of Wacker Asahi Kasei Silicone Co., Ltd., Tokyo, Japan, which have corresponding individual certificates. All certificates are available to our customers for download at:

» www.wacker.com/certificates

The regional focus of sustainability management in the reporting year was Europe. Our sites at Jena, Halle, Holla, León, Plzeň and Stetten underwent health and safety audits. In addition, environmental aspects were examined at Holla, Plzeň and Stetten. In 2020, the regional focus will be on Asia.

WACKER Sustainable Solutions

Launched in 2018, the WACKER Sustainable Solutions program puts into effect our goal of focusing on sustainability. The program is intended to anchor sustainability-related aspects more firmly in our business models, to identify new, sustainable business opportunities and to minimize sustainability-related risks at an early stage.

WACKER Sustainable Solutions aims to:

- Promote and expand our existing sustainable business fields
- Establish new sustainable business areas
- Identify and assess sustainability-related risks to our business portfolio at an early stage

The Executive Board convened a Sustainability Council to monitor and coordinate the WACKER Sustainable Solutions Program. Its members, who are drawn from the business divisions and corporate departments, rate the company's sustainability performance. The Sustainability Council coordinates interdepartmental measures and reviews the progress made by the program.

Analysis of Fundamental Sustainability Issues

WACKER communicates regularly with numerous stakeholder groups – ranging from employees, customers, suppliers, analysts, investors and journalists to scientists, neighbors, politicians, associations and NGOs. As part of its sustainability reporting activities, WACKER has for many years regularly surveyed stakeholders worldwide, most recently in 2018. The top five issues were the safety of production plants, product safety, competitiveness/value trends, occupational safety/employee health, and compliance.

As a chemical company, we also prioritize transport and storage safety, risk management, energy consumption, resource conservation and the development of new, sustainable products.

» For more details about resource-saving production and sustainable products, please refer to the section in the combined management report entitled "Further Information on R&D, Employees, Procurement, Production, Sales and Marketing."

» Every two years, we publish a sustainability report to inform our stakeholders about WACKER's sustainability work in an open and comprehensive manner. In 2019, WACKER published its Sustainability Report for 2017/2018.

Environmental Concerns

By setting quantifiable environmental targets, we aim to lower the environmental impact of our production activities. The long-term goals regarding CO₂ emissions and energy consumption that applied at WACKER Germany have been extended to the WACKER Group.

D.1 WACKER's Environmental Targets

Region	Key Environmental Indicator	Base Year	Target Year	Target ¹ (%)
Group	Specific energy consumption (per metric ton of net production) ^{2,3}	2007	2030	– 50
Group	Specific carbon dioxide emissions (per metric ton of net production) ^{2,3}	2012	2030	– 33
Group	Specific dust emissions (per metric ton of gross production) ²	2012	2022	– 50
Group	Specific emissions of relevant VOCs (volatile organic compounds; per metric ton of gross production) ²	2012	2022	– 25
Group	Specific NO _x emissions (nitrogen oxides; per metric ton of gross production) ²	2012	2022	– 25

¹ The target-related success level is not based on linear progression, but on individual projects that are implemented at different stages throughout the target period. This is why no intermediate results are reported.

² Gross production corresponds to the total production (target products and byproducts) of a plant or site. Net production is calculated by subtracting the internal reuse of products from the gross production of a plant or site.

³ New target as of 2019.

Environmental Protection

WACKER attaches particular importance to integrated environmental protection, which begins right at the product-development and plant-planning stage. WACKER is continually working to improve its production processes, with the aim of conserving resources. A key task is to close material loops and recycle byproducts from other areas back into production. This enables us to reduce or prevent energy and resource consumption, emissions and waste, and to integrate environmental protection into our production processes. At WACKER, we monitor resource and waste targets at site and divisional levels.

» The integrated production system is described in the Group Business Fundamentals section of the combined management report.

Our Groupwide standards for protecting the environment apply to all our production sites and technical competence centers. The site managers ensure that environmental protection requirements and environmental standards are met at their particular locations. The Group Coordinator for the Environment looks at how sites implement environmental standards in practice and performs random checks to verify legal compliance.

In 2019, WACKER invested €5.1 million in environmental protection (2018: €5.9 million). Environmental operating costs amounted to €82.9 million (2018: €82.9 million). Examples of capital expenditure on environmental protection: at the Burghausen site, we enhanced the availability of our sludge incineration facility by automating tasks, and thus reduced pollutant emissions. At our wastewater treatment plant in Nünchritz, we automated the inflow of nutrients and additives in order to align them with demand, to avoid excess additions and to lower discharges into waterways.

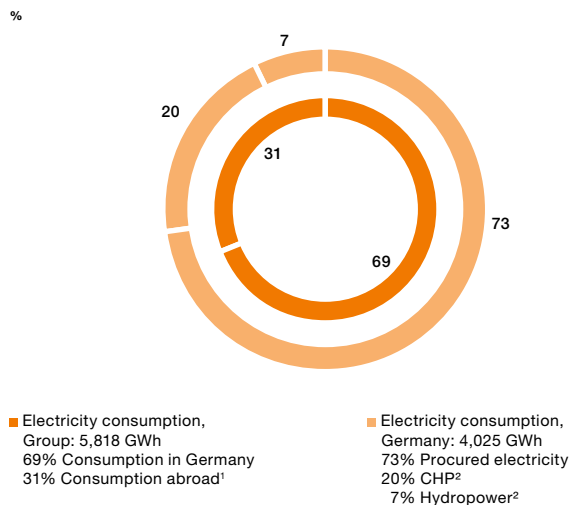
D.2 Environmental Protection Costs

€ million	2019	2018	2017
Operating costs	82.9	82.9	78.3
Capital expenditures	5.1	5.9	4.2

Energy

The chemical industry is one of the most energy-intensive sectors. WACKER's sites in Germany consume around 4,000 GWh of electricity, accounting for about 0.8 percent of the country's electricity consumption. WACKER is continually improving the energy efficiency of its processes. This enables us to remain globally competitive while at the same time contributing to climate protection.

D.3 Electricity Supply



¹ Outside Germany, we purchase electricity from third parties based on the local standard energy mix.

² Burghausen

The Executive Board has defined energy targets for WACKER to further lower specific energy consumption (amount of energy per unit of net production output). Our goal is to reduce the Group's specific energy consumption to one-half of the 2007 level by 2030. The deadline we have set for this energy-reduction target at our German sites is 2022 (also starting from a 2007 baseline figure).

In 2019, we adopted energy-efficiency measures to further reduce specific energy consumption. To this end, we continued to enhance our production plants' heat-recovery processes and integrated systems, and optimize electrical power consumption.

WACKER's German production sites accounted for 69 percent (2018: 77 percent) of the Group's total electricity consumption. The share of procured electricity rose in 2019. This was because we began in August of that year to install a new gas turbine to modernize the Burghausen site's combined heat and power (CHP) plant for electricity and steam generation. During this work, we have been unable to generate our own electricity there, which must be externally procured. This capital expenditure on the upgrade of our CHP plant will substantially reduce our greenhouse gas emissions compared with the public energy mix. The new turbine has an output of over 130 MW, enabling the CHP plant to achieve fuel efficiency of over 86 percent. That means it will operate more efficiently and produce lower emissions than the almost 20-year-old facility it replaces.

Our primary source of energy is natural gas. At Burghausen, our largest site, we produce steam and electricity in the CHP plant using a cogeneration system. This plant, together with Burghausen's hydroelectric plant and Nünchritz's cogeneration plant, produced a total of 1,075 GWh of electricity in 2019 (2018: 1,431 GWh). Thus, WACKER generated about 27 percent of its total electricity requirements in Germany itself.

WACKER is subject to the regulations of the EU emissions trading system because of its power plants at the Burghausen and Nünchritz sites, and its silicon-metal production plant in Holla, Norway. We have covered shortfalls since 2014 by buying emission allowances for facilities subject to emissions trading.

Groupwide, carbon dioxide emissions from captive power plants subject to emissions trading rules and from silicon-metal production in Holla totaled about 0.9 million metric tons in the reporting period (2018: 1.0 million metric tons).

Many chemical reactions generate heat that can be put to use in other production processes. In addition to recovering heat from such chemical reactions, we have been using integrated heat-recovery systems in Burghausen and Nünchritz for years and are continually improving and expanding them. In this way, we reduce the amount of primary energy (natural gas) consumed by our power plants.

D.4 Energy Consumption

GWh	2019	2018	2017
Electricity consumption	5,818	5,178	5,460
Heat consumption	3,325	3,120	3,505
Primary energy use (total)	5,217	5,703	6,055
Of which			
Natural gas	4,029	4,827	5,056
Solid fuels ¹	947	640	750
Heat supplied by third parties ²	241	236	249

¹ Coal, charcoal and wood; used as reducing agents at the silicon-metal plant in Holla, Norway

² Steam and district heating

Explanation of Environmental Indicators

In 2019, direct emissions of carbon dioxide (Scope 1 of the Greenhouse Gas Protocol) declined by 5 percent year over year, mainly due to the new turbine and the five-month shutdown of the CHP plant in Burghausen necessitated by its installation. Commissioning of the new Furnace 8 at the Holla site resulted in a further direct cut in carbon dioxide emissions.

By comparison, nitrogen oxide emissions were virtually unchanged over 2018. The five-month shutdown of the CHP plant at Burghausen brought about a considerable reduction in nitrogen oxide emissions there. Nitrogen oxide emissions at Holla rose by a comparable amount due to commissioning of Furnace 8.

The downward trend in non-methane volatile organic compounds (NMVOC) continued with a reduction of 7 percent. Improvements in existing processes enabled us to more than compensate for rising emissions caused by new facilities and increases in production.

Expansion of the Holla site caused total dust emissions to rise by 24 percent year over year. With its enhanced technology, the new furnace in Holla will help further reduce specific dust emissions per metric ton of product.

Water withdrawal fell by 4 percent due to the weather-dependent normalization of cooling water consumption at Burghausen. Increased production output at the León site was one contributing factor in the 5-percent rise in chemical oxygen demand (COD).

The increase in halogenated organic hydrocarbons (AOX) was partly attributable to the fact that operation of the biological wastewater treatment facility at Burghausen was at times restricted in the first quarter of 2019.

The amount of waste fell by 4 percent across the Group as a whole, with the volume of construction waste, for example, declining substantially. Increased output at the León site added to the volume of non-hazardous waste requiring disposal.

D.5 Environmental Indicators

	2019	2018	2017
Air			
CO ₂ emissions ¹			
Direct (kt) ²	1,133	1,194	1,239
Of which fossil (kt)	1,102	1,166	1,213
Of which biogenic (kt)	31	28	26
Indirect (kt) ³	1,754	1,478	1,606
Nitrogen oxides (NO _x) (t)	1,790	1,810	1,860
Non-methane volatile organic compounds (NMVOCs) (t)	800	860	880
Dust (t)	354	284	278
Water			
Water use (thousand m ³)	218,270	227,510	197,430
Chemical oxygen demand (COD) (t)	1,290	1,230	1,310
Halogenated organic hydrocarbons (AOX) (t)	3.2	2.2	2.6
Waste			
Total	175,870	182,750	161,820
Disposed of (t)	64,370	49,690	41,400
Recycled (t)	111,500	133,060	120,420
Hazardous (t)	71,390	77,070	75,800
Non-hazardous (t)	104,480	105,680	86,020

¹ CO₂ emissions are measured on the basis of 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 CO₂ emissions. Scope 2: indirect emissions from the generation of purchased energy (converted into CO₂ equivalents for purchased electricity, steam and heat). Conversion is based on emission factors of the International Energy Agency (electricity) and from the GEMIS database (steam and heat).

² CO₂ emissions are broken down into fossil and biogenic sources in accordance with the GHG Protocol. Biogenic emissions arise from the combustion or decomposition of renewable raw materials.

³ The amount of electricity supplied by the affiliate Alzwerke GmbH is included in indirect CO₂ emissions in a climate-neutral manner – because it is not fed into the public grid.

Monitoring the Group's carbon footprint is an important tool from which we derive measures to improve climate protection. In addition to tracking our indirect greenhouse gas emissions from procured energy (Scope 2), we also measure all WACKER-relevant emissions along the value chain (Scope 3) that are generated, for example, by the procurement of raw materials, product transport or waste disposal. WACKER discloses Scope 3 data in its Sustainability Report, as well as in the Climate Change Report of the Climate Disclosure Project ([CDP](#)).

Higher production volumes at the Charleston site increased indirect CO₂ emissions in the reporting year. This trend was reinforced by the procurement of additional, externally generated electricity during the modernization of our CHP plant at Burghausen.

The electricity-to-CO₂-emissions conversion factors for power generation in Germany and the USA fell further (data as per CO₂ Emissions from Fuel Combustion, 2019 Edition, International Energy Agency). The procurement of externally generated electricity more than offset the impact of these lower conversion factors. All these effects together resulted in an increase of 19 percent in indirect CO₂ emissions from procured energy (Scope 2).

In 2019, we once again forwarded our emissions data to the [CDP](#), which WACKER joined in 2007. In the CDP's Climate Change Report for the chemical sector, Wacker Chemie AG achieved a B (Management) on a scale from A (Leadership) to D (Disclosure). Registered [CDP](#) users can download the details.

Water

Up to 2018, we had used the Global Water Tool™ (GWT) developed by the World Business Council for Sustainable Development (WBCSD) – or the WRI Aqueduct contained in that tool – to analyze the relative water stress index of the countries where our main production sites are located. The results showed that 99 percent of our annual water use and over 91 percent of our production volume were attributable to regions with adequate water availability levels. This tool was discontinued in 2019, which is why we will henceforth use the [wwf Water Risk Filter](#). In this tool, we scored a maximum of 3.5 (on a scale from 1 for no risk to 5 for high risk) for our production sites and, accordingly, have identified no significant risks to bodies of water.

In 2019, WACKER submitted its second CDP Water Security Report (for the reporting year 2018), improving its overall result to B–. This was made possible by detailed analyses of the company's processes and by more systematic data capture (prior year: D; scale from A to D, representing the levels Leadership (A), Management (B), Awareness (C) and Disclosure (D)). Registered [CDP](#) users can download the details.

Ecological Product Assessment

When assessing the sustainability of products, we take account of economic, environmental and social aspects throughout the entire product life cycle. The instruments we use for this are the WACKER ECOWHEEL® and WACKER Sustainable Solutions. We also perform life cycle assessments, which enable us to track the progress of a product from its manufacture through to when it leaves the factory gate.

- We use the WACKER ECOWHEEL® to identify key sustainability topics at a qualitative level and, together with our customers, set priorities for research projects. Our evaluations factor in the material, water and energy consumption of a product, as well as its ecotoxicity, over the entire life cycle.

- Under the WACKER Sustainable Solutions program, which was launched in 2018, we are assessing our portfolio in accordance with the standards set by the [World Business Council for Sustainable Development \(WBCSD\)](#). Our aim is to continually increase the proportion of products that contribute to sustainability. By the end of 2019, we had assessed over 85 percent of our products (measured by sales share). 75 percent of these make a neutral or positive contribution to sustainability. For the remaining 25 percent, we are identifying starting points for improvements, such as substituting ingredients. We want to raise the share of sustainable products and products for sustainable applications to at least 90 percent by 2025.

- Our life cycle assessments (LCAs) quantify the environmental impact of our products from their manufacture through to the moment they leave the factory gate. Such analyses allow us to evaluate the sustainability of our products and production processes, and to improve them accordingly. In an LCA, we take account of all relevant, potentially harmful effects on soil, air and water, as well as all material flows associated with the system in question. This includes raw-material consumption and emissions from supply

and disposal processes, from energy generation and from transport. In the reporting period, WACKER POLYMERS updated its LCA data for dispersions and for dispersible polymer powders. WACKER SILICONES had LCAs performed for the entire silicone production chain and, where requested, supplied customers with the processed data.

In order to systematically assess raw materials that we use in our products, we have set up our Identifying Substances and Mixtures of Concern (isc) system in a dedicated database. In addition to regulatory factors, we also take issues under public debate into account.

Nature Conservation

As part of the Bavarian Environmental Pact, WACKER and seven other ChemDelta Bavaria companies formed [Verein Naturnahe Alz \(Natural Alz\)](#), an association supporting the state of Bavaria in renaturalizing the Alz river and enhancing its ecosystem in the long term.

In 2019, we launched a project to upgrade the ecological status of unused green spaces at the Burghausen site with the aim of improving the habitat for insects. A section of the embankment of the Alz canal near the Burghausen site is being cultivated as a wildflower meadow to encourage local flora and attract insects. As the owner of the land, we are using this project to stimulate ecological development in partnership with the Landschaftspflegeverband Altötting (Altötting Landscape Conservation Association). The project is supported by the Bavarian Environment Ministry's landscape conservation program.

Plant, Transport and Product Safety

An important goal at WACKER is to operate plants and processes in a manner that poses no risk to people or the environment. To this end, we have installed a groupwide safety management system that addresses both workplace and plant safety.

Plant Safety

The first stage in ensuring the safety of our plants is to systematically identify and assess risks. This includes analyzing not only how well we control the energy present in a process (e.g. pressure, heat), but also what effect a single error might have on a chain of events that could culminate in the escape of a substance or an accident. After completing this comprehensive analysis, we specify safety measures to prevent undesired events.

D.6 Environment- and Safety-Related Incidents

	2019	2018	2017
Groupwide number of environment- and safety-related incidents ¹	29	37	22
Groupwide environment- and safety-related incidents per 1 million hours worked ²	1.3	1.7	1.0

¹ According to European Chemical Industry Council (Cefic) criteria

² WACKER Process Safety Incident Rate (WPSIR)

Our safety management system focuses on prevention. Even so, safety-critical incidents cannot always be prevented. Across the Group, we enter any incident relevant to safety, health or the environment in the IT system we use for sustainability reporting (SPIRIT). The reports are evaluated and measures tracked. Incident reports that offer cross-division or cross-site learning effects are processed and forwarded to any company units with a similar risk potential.

Safety Training and Inspections

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 2019, we audited our European sites in Halle, Holla, Jena, León, Plzeň and Stetten. WACKER awards recognition to facilities that operate for sustained periods of time without a reportable accident.

Safe Transport of Hazardous Materials

WACKER ensures that its products are stored and transported safely, especially where hazardous goods are involved. All sites at which WACKER produces and ships goods must comply with locally and internationally applicable transport regulations, as well as with WACKER's own strict safety standards.

In 2019, roughly 14 percent of total shipments in Germany were shipments of hazardous goods. Some 9,000 trucks for hazardous-goods shipments were inspected pursuant to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) in the shipping areas at our sites and warehouses in Germany (2018: roughly 12,000). We turn away any that are defective. Failure rates have been extremely low for years now. The rate for 2019 was roughly 2.8 percent for hazardous-goods shipments by road from Burghausen, our largest site in Germany (2018: 2.0 percent). As elsewhere, we rely on well-trained personnel for transport safety.

We regularly discuss the issue of transport safety with our logistics providers in Germany at occasions like our annual Supplier Day. If deficiencies are found, we agree improvements and then follow up on their implementation. Contractually defined specifications, including the requirements profile for providers of road transport logistics, enable WACKER to ensure that logistics providers meet its stringent safety requirements. Selected shippers of hazardous goods are audited annually.

For products with a high hazard potential, we use packaging and tanks of the highest quality.

When monitoring the distribution of our products, we also record any transport incidents that do not involve hazardous goods, as well as those that have no negative impact on people or the environment. Such incidents are factored into the annual assessment of our logistics providers. In the reporting year, we recorded a total of five transport incidents involving hazardous goods.

D.7 Transport Accidents in Germany

Number of Accidents	2019	2018	2017
Road	3	3	6
Rail	2	—	2
Sea	—	—	—
Inland waterways	—	—	—
Air	—	—	—

The REACH Regulation, which came into force in 2007, governs the registration, evaluation, authorization and restriction of chemicals within the European Union. REACH involves the collection of extensive data and imposes stringent requirements on the manufacturers, importers and users of chemical products. All substances on the European market that are used or imported in annual quantities exceeding one metric ton must be registered and evaluated. The scope of evaluation work is largely determined by the quantity produced or imported and by the expected risks. Particularly high-risk substances are subject to regulatory approval. As part of REACH, WACKER had submitted 550 registration dossiers, including any revisions, to the European Chemicals Agency (ECHA) by the end of 2019. In the course of its regular evaluation activities, ECHA required additional information for many of the dossiers, all of which we provided on time in 2019.

WACKER's close contact with its suppliers extends to matters relating to substances not yet registered under REACH. We refer to our data when verifying the registration status and, where necessary, request information to ensure that we use only REACH-compliant raw materials.

To promote the safe use of chemicals, the International Council of Chemical Associations (ICCA) developed its Global Product Strategy (GPS), which is a guideline on how to assess chemical properties and provide product safety information. In Europe, most GPS requirements are satisfied by REACH and by the CLP Regulation (Classification, Labeling and Packaging of Substances and Mixtures).

Product Safety

WACKER provides information on the safe use of its products and works continually to prevent or reduce the use in products of any substances harmful to human health and the environment. WACKER complies with the chemical legislation applicable in the destination countries to which it ships its products. The expense involved in following and implementing such legislation worldwide continues to rise steadily.

As a guide for our product developers, we maintain a list of substances that WACKER products may no longer contain. In addition to prohibited and restricted chemicals (such as materials listed in Annexes XIV and XVII to the REACH Regulation), the list includes substances that many companies find undesirable. As far as possible, we avoid substances on the European Chemicals Agency's List of Substances of Very High Concern (SVHC).

Personnel Matters

WACKER's success is a team effort, involving the whole workforce. That is why the company – in the spirit of the UN's Sustainable Development Goal 8: Decent Work and Economic Growth – encourages its employees to realize their potential, assume responsibility and contribute their own ideas. We support their endeavors by providing basic and advanced training opportunities. We want our employees to have secure jobs, generous employee benefits and a work culture that facilitates a positive work-life balance. It is important to us that they all enjoy equality of opportunity. A further aim is to ensure that any employees who are disabled or have chronic health issues are integrated in the workplace over the long term. Vocational training has always been a focus of WACKER's personnel-development activities. We offer our employees attractive compensation, good promotion prospects and a share in our company's success. All key personnel matters are dealt with by the corresponding Executive Board committees.

In our Code of Conduct, we explicitly commit ourselves to the UN Global Compact's Ten Principles. They include the principles on labor standards, namely upholding the freedom of association (Principle 3), eliminating all forms of forced labor (Principle 4), abolishing child labor (Principle 5) and eliminating discrimination (Principle 6). We also make commitments to our customers to uphold these same labor standards.

The sanctions we impose for any proven misconduct in personnel matters are determined by the seriousness of the incident. There were no incidents of note in the reporting year.

Basic and Advanced Training at High Levels

WACKER has made vocational training a focus of its personnel-development activities. In 2019, 201 young people began apprenticeships at WACKER or at the Burghausen Vocational Training Center (BBiW). With a total of 618 apprentices, WACKER had slightly more apprentices than the year before (2018: 599). The percentage of apprentices (ratio of apprentices to Group employees in Germany) was 5.6 percent, marginally higher than the prior-year figure (5.5 percent). In 2019, WACKER kept on virtually all suitably qualified apprentices – 148 graduates – hiring 126 on permanent contracts and 22 on temporary contracts. The Burghausen Vocational Training Center also provides training for partner companies outside the WACKER Group.

To keep abreast of demographic trends and offer young people long-term prospects, a company agreement for WACKER Germany about hiring qualified apprentices is in effect through the end of 2022. Under the agreement, suitable apprentices receive a job offer after graduating. If the offer is for a long-term position, hiring is permanent; for temporary positions, hiring is limited accordingly.

In 2019, WACKER invested a total of €8.5 million in personnel-development activities and advanced training (2018: €8.7 million).

Workplace Safety

Workplace and plant safety are vitally important for WACKER. That is why WACKER defines safety targets together with its executives in Germany (in upper and middle management) during its annual target-setting process.

WACKER's processes and standards for workplace safety are aligned with the international standards OHSAS 18001 and ISO 45001. Systematic workplace safety includes regular evaluation of hazards and work-area monitoring.

All our employees are given safety training tailored to their particular work areas. WACKER Germany, for example, offers over 40 online courses on occupational safety issues. Topics range from general safety guidelines for office and laboratory workers to instruction on safe behavior in potentially explosive atmospheres and the classification of hazardous materials.

In the reporting year, we continued the review of protection plans for compressors begun in the previous year, including any necessary retrofitting. We had initiated the safety program in response to the findings from the investigation of the 2017 explosion at Charleston, USA.

Similarly, the program to improve the safety of pipe bridges was continued. The focus here was on repairing piping that is particularly prone to corrosion, and on labeling and documenting every last pipe bridge.

Workplace accident performance is one of the most important non-financial performance indicators. Compared with the previous year, we changed our workplace safety goal to reduce accidents: the new goal is to ensure that the number of workplace accidents per 1 million hours worked does not exceed 2.0 groupwide in 2020 (prior-year goal: 1.7). The accident rate actually achieved was 3.4 workplace accidents per 1 million hours worked, up somewhat from the previous year. In the reporting period, WACKER again had no fatal workplace accidents in its workforce.

Very few accidents at WACKER involve chemicals. The most common causes are tripping, slipping, falling and lack of care when performing manual activities. We are never satisfied with our accident rate, and we regularly update our workplace safety initiatives. In 2019, we again reviewed how effectively our German sites implement key safety regulations including, for example, updated rules governing the preparation of safe-work permits and a campaign to raise awareness of the accident risks associated with smartphone use. Another initiative is the Safety Days program – focused events aimed at informing and motivating employees on safety issues. Our sites at Plzeň (Czech Republic) and Nanjing (China), as well as those at Adrian and Charleston (USA), organized such Safety Days in 2019.

D.8 Workplace Accidents Involving Permanent Staff and Temporary Workers

	2019	2018	2017
Accident rate across Group: Accidents ¹ per 1 million hours worked	3.4	2.9	2.8
Europe	3.7	3.6	3.3
The Americas	2.9	1.5	2.2
Asia	1.9	0.4	0.4
Accident rate across Group: Reportable accidents ² per 1 million hours worked	1.9	1.3	1.4
Fatal accidents	—	—	—

¹ Accidents leading to at least one day off work

² Accidents leading to over three days off work

We are continuing to implement our WACKER Safety Plus (WSP) program, which looks at sites with particularly low accident rates and makes use of their successful safety measures, such as safety patrols, emergency drills and holding discussions with the workforce. The goal of WACKER Safety Plus is to recognize and avoid unsafe behavior.

Diversity and Equal Opportunity

Equal opportunity: we view human diversity as an asset. We oppose discriminatory or derogatory treatment on the basis 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. Employees can notify their supervisors, even anonymously, of any potential discrimination or report it to a compliance officer, employee representative or designated HR contact person. Complaints are investigated and the reporting party informed of the outcome. Cases of potential discrimination are included in the monthly compliance report submitted to the Executive Board. In addition, they are listed in the regular reports submitted to the Supervisory Board. We require all employees at our German sites to familiarize themselves with the country's General Equal Treatment Act (AGG) by completing an e-learning course.

Promoting diversity: in 2015, WACKER launched a groupwide initiative to promote diversity and inclusion in its workforce, and also signed Germany's nationwide Diversity Charter. Ever since then, WACKER has set yearly priorities to sensitize employees to the opportunities and challenges of a diverse workforce. The focus in 2019 was on age, experience and cultural diversity.

At WACKER, special arrangements are in place for anyone who has severe disabilities, who is of equivalent status or whose health is impaired. WACKER's system of workplace integration management calls for close cooperation between supervisors, employees, Human Resources, employee representatives, representatives of employees with disabilities and Health Services in order to provide targeted support in line with local laws.

Diversity management at WACKER focuses not only on inclusion, but also on the issues of gender and cultural background. People from over 65 different nations work for WACKER. At the end of 2019, 36 out of a total of 174 senior executives groupwide were of non-German nationality, corresponding to 20.7 percent of the total. Overall, 14 nationalities were represented at the senior executive level.

Proportion of Women in Executive Positions

We have set a goal to significantly increase the proportion of women in middle and upper management positions in the medium to long term. WACKER's talent-management process helps systematically identify and nurture women with management potential. The corporate governance report contains additional information about the proportion of women in management and, in particular, about how WACKER is implementing the German statute on equal opportunity for women and men in management that came into force on May 1, 2015.

D.9 Diversity, Inclusion and Equal Opportunity

	2019	2018	2017
Workforce, groupwide	14,658	14,542	13,811
Of whom female	3,456	3,355	3,154
Female employees, groupwide (%)	23.6	23.1	22.8
Workforce in Germany	10,359	10,291	9,984
Of whom non-German	1,047	1,054	1,046
Non-German employees in Germany (%)	10.1	10.2	10.5
Employees in middle management, groupwide (managerial level 3)	3,313	3,212	3,043
Of whom female	810	762	690
Women in middle management, groupwide (%)	24.4	23.7	22.7
Senior executives (OFKs), groupwide¹	174	172	166
Of whom female senior executives	24	23	21
Female senior executives, groupwide (%)	13.8	13.4	12.7

¹ Number of senior executives (OFKs) exclude inactive employment contracts and the Executive Board of Wacker Chemie AG

Work-Life Balance

WACKER offers its employees extensive opportunities to balance their private and professional lives. These range from multiple work-time models, childcare assistance, and school-vacation support at Burghausen (our largest site) through to one week of “family time” for parents of children under eight and support for employees caring for relatives.

WACKER’s membership in the “Familienpakt Bayern” (Family Pact Bavaria) network, sponsored jointly by the Bavarian state government and Bavarian industry, highlights our goal to foster a family-friendly corporate culture. To date, more than 900 companies have joined the Pact.

Initiative to Evolve Corporate Culture

In 2019, the Group’s Executive Board and senior executives launched an initiative to evolve WACKER’s corporate culture and rolled it out across the organization worldwide. The initiative focuses on empowerment (delegating and taking responsibility), collaboration, involvement and performance, all of which rest upon the pillars of trust and purpose. Through this initiative, WACKER is seeking to advance the Group’s transformation into a more flexible organization that relies more strongly on the individual responsibility of its employees.

A Popular Employer in the Chemical Industry

In 2019, WACKER’s own executives again rated it one of the most popular employers in the German chemical industry. In the annual VAA survey of executives in the chemical industry, WACKER came in third out of a total of 23 companies. In the reporting year, VAA member executives

gave the Group an overall score of 2.50 (with 1.0 being the highest), even better than the year before, when WACKER took fourth place.

Employee Turnover

Good social benefits, competitive compensation and motivating tasks make WACKER an attractive employer. That is evident in our employees’ long-standing allegiance to the company. The average length of service in Germany (permanent staff) was 18.1 years (2018: 18.1 years). The average length of service of WACKER’s executive personnel was 21.6 years.

D.10 Employee Turnover Rate

%	2019	2018	2017
Germany	0.5	0.7	0.5
International	8.4	8.4	8.2
Group	2.7	2.8	2.6

Employee Representation

Our employees in Germany make use of their option to unionize. Every WACKER site in Germany has employee representation. WACKER actively nurtures the social partnership. In the interests of the company’s employees, relations between management and employee representatives are close and constructive. Innovative and workable company agreements are one result of this dialogue.

WACKER employees abroad are free to unionize as well. At non-German sites where there is no (statutory or voluntary) employee representation, HR staff members are the contacts for employee interests.

Social Responsibility

WACKER sees itself as a good corporate citizen – as part of the society in which we live and work. That is why we practice social responsibility, especially in the regions where our sites are located.

Social Issues

Neighbors: corporate citizenship is based on good relations with municipalities and neighbors. We speak openly about what happens behind our factory gates. Across the world, our sites address the public's questions. Local residents who turn to us receive prompt, clear answers to their concerns. We achieve this by operating local hotlines and having central contact persons in place.

We publish information about our sites in our environmental reports and brochures. We hold open houses and other outreach events, including WACKER's Knowledge Forum, Burghausen's Environment Information Days and Nünchritz's annual community meeting.

At many of our sites, we offer local communities free services, including health and eye checkups in India and a Household Hazardous Waste Day at Adrian (USA), where neighbors bring in household chemicals that are not allowed in trash cans.

Schools and universities: WACKER wants to get children and young people interested in technology and the natural sciences. As a chemical company, we will need outstanding scientists in the future, and are pursuing multiple strategies to find them.

WACKER supports progressive teaching methods and modern approaches to school management. We are a founding member of the Bavarian Educational Pact, a foundation comprising 143 companies and the state of Bavaria. Its goal is to modernize the Bavarian educational system. In 2019, the number of teachers in Germany and Austria trained in WACKER's CHEM2DO® experiment kit reached 2,500. Now in its sixth year, the kit prepares educators for experiments involving silicones and cyclodextrins that can then be conducted in class.

WACKER places great emphasis on fostering young scientific talent and maintaining close contact with universities. Our researchers are frequently invited to deliver presentations and lectures at universities. University groups visit our locations to gain insights into work at an industrial company. Students can write their bachelor's, master's and doctor's theses at WACKER, work as interns with the company or take vacation jobs.

► Our 2017/2018 Sustainability Report discusses in detail our diverse partnering activities with schools and universities.

Respect for Human Rights

Respect for human rights, and the elimination of human rights abuses, are fundamental to our activities. We are explicitly committed to the UN Global Compact's Ten Principles and, thus, to protecting human rights and avoiding complicity in human rights abuses. We condemn slavery and all other forms of forced or compulsory labor. In this area, we follow the OECD Guidelines for Multinational Enterprises, the ILO Core Labor Standards and the UN Guiding Principles on Business and Human Rights. We are currently in the process of implementing the requirements of the National Action Plan for Business and Human Rights.

In 2018, WACKER founded a Human Rights Committee comprising experts in sustainability, compliance, law, human resources, procurement, logistics and sales, as well as human rights specialists. This committee is tasked with prioritizing potential impacts on human rights at WACKER and throughout the supply chain. It is also responsible for checking existing management approaches in terms of mechanisms that fulfill a protective and monitoring function, as well as for identifying weak points and meeting the need for information.

Preventing Corruption and Bribery

Corruption and bribery have no place in our business model. Our principles on this are contained in our Code of Conduct and all WACKER employees are required to follow them.

D.11 Corruption and Bribery Incidents

	2019	2018	2017
Prevention			
Number of organizational units examined for corruption/bribery risks	29	31	26
Percentage of legal entities examined for corruption/bribery risks	20	20	17
Corruption and Bribery Incidents¹			
Examined	1	2	0
Concluded ²	2	1	0
Measures Taken as a Result of Corruption and Bribery Incidents³			
Written warnings	—	—	—
Termination of employment contract	1	—	—
Number of lawsuits	—	—	—
Level of major fines and number of non-monetary penalties	—	—	—

¹ Only cases of corruption in the narrow sense (e.g. bribery) are taken into account.

² One pending case from 2018 was concluded in 2019.

³ Major fine threshold: €10,000

Training courses on compliance sensitize employees to specific risks and to the rules of conduct that apply at work. Compliance is a compulsory training subject for all WACKER Group employees.

According to Transparency International's Corruption Perceptions Index (CPI), more than half of the countries in which WACKER operates have a low to very low risk of corruption.

Sustainable Supply-Chain Management

With production sites in Europe, the Americas and Asia, WACKER procures goods and services from numerous countries. As a member of both the United Nations Global Compact and the chemical industry's Responsible Care® initiative, we consider it vital to verify that our suppliers fulfill the generally accepted sustainability principles that form part of our General Terms and Conditions of Procurement. Particularly important issues in an audit include working conditions, ethical standards, safety standards (especially for handling hazardous materials) and the management of local resources (water use, energy consumption, etc.).

As verification is vital, WACKER joined the Together for Sustainability (TfS) initiative in January 2015. Launched by the chemical industry, this procurement initiative developed a process for auditing and assessing a supplier's sustainability performance. Because results are standardized and accessible to all TfS members, the program is also attractive for suppliers.

The results of TfS audits and assessments are integral to our process of supplier evaluation. When the results are unsatisfactory, we speak to the supplier about how they could make improvements. Reassessments or repeated audits are used to follow up on progress. Consistently poor results and lack of cooperation have consequences, and may ultimately lead to business relations being terminated. We take a risk-based approach when assessing our suppliers.

Our aim is to use TfS to evaluate the sustainability performance of all our key suppliers, who account for 70 percent of the Group's procurement volume. Since joining TfS, we have made good progress along this path. At the end of 2019, 72 percent of our key suppliers and 84 percent of their procurement volume were covered by a valid TfS assessment or audit (i.e. no more than three years old). Overall, more than 72 percent of our global procurement volume in 2019 was covered by TfS – for raw materials, the figure is actually 88 percent and, for energy, 95 percent. A monthly management report tracks how successfully TfS goals are met.

Further, we expect our suppliers to use a management system that meets the requirements of ISO 9001 (quality) or comparable specifications such as GMP (Good Manufacturing Practice). In the case of industrial suppliers, we also require certification to ISO 14001 (environmental protection).

Risk and Compliance Management

Managing Corporate Risks

Risk and compliance management at WACKER is presented in detail in the risk management report, which forms part of the combined management report. The same is true for the central risk areas affecting WACKER's business and how they are dealt with.

Overall, we see no serious risks that might arise from environmental concerns, personnel matters, social issues, human rights, corruption or bribery. Similarly, we see no serious sustainability risks that might arise from our business relationships or our products.

Information on Wacker Chemie AG

In addition to the information on the WACKER Group provided in the combined non-financial report, the key indicators for Wacker Chemie AG are given below.

Wacker Chemie AG is the parent company of the WACKER Group and has its headquarters in Munich, Germany. It is divided into four business divisions: WACKER SILICONES, WACKER POLYMERS, WACKER BIOSOLUTIONS and WACKER POLYSILICON. Wacker Chemie AG also comprises corporate departments, which provide services to the Group as a whole. Key indicators used in management decision-making are applied across all of the Group's business divisions. Corporate goals are defined and reported for the divisions on a groupwide basis. Even though Wacker Chemie AG is an independent entity, no separate key performance indicators are defined or reported for it. That also applies to matters such as sustainability and non-financial performance indicators. For more information, please refer to the respective details provided for the WACKER Group as a whole.

D.12 Energy Consumption

GWh	2019	2018	2017
Electricity consumption	4,023	3,974	3,944
Heat consumption	1,776	1,936	2,204
Primary energy use (total)	3,635	4,494	4,729
Of which			
Natural gas	3,613	4,472	4,707
Solid fuels ¹	—	—	—
Heat supplied by third parties ²	22	22	22

¹ Coal, charcoal and wood

² Steam and district heating

D.13 Environment- and Safety-Related Incidents

	2019	2018	2017
Number of environment- and safety-related incidents ¹ , Wacker Chemie AG	15	30	14
Environment- and safety-related incidents at Wacker Chemie AG per 1 million hours worked ²	1.0	1.9	0.9

¹ According to European Chemical Industry Council (Cefic) criteria

² WACKER Process Safety Incident Rate (WPSIR)

D.14 Workplace Accidents Involving Permanent Staff and Temporary Workers

	2019	2018	2017
Accident rate at Wacker Chemie AG: accidents ¹ per 1 million hours worked	3.3	3.4	3.1
Accident rate across Wacker Chemie AG: Reportable accidents ² per 1 million hours worked	1.7	1.4	1.5
Fatal accidents	—	—	—

¹ Accidents leading to at least one day off work

² Accidents leading to over three days off work

D.15 Number of Employees and Temporary Workers as of December 31

	2019	2018	2017
Employees	10,093	10,033	9,740
Temporary workers	71	75	138

D.16 Environmental Indicators, 2017–2019

	2019	2018	2017
Air			
CO₂ emissions¹			
Direct (kt) ²	702	848	896
Of which fossil (kt)	702	848	896
Of which biogenic (kt)	—	—	—
Indirect (kt) ³	1,230	1,137	1,110
Nitrogen oxides (NO _x) (t)	460	680	750
Non-methane volatile organic compounds (NMVOCs) (t)	490	560	570
Dust (t)	21	21	22
Water			
Water use (thousand m ³)	204,630	218,280	187,870
Chemical oxygen demand (COD) (t)	980	1,050	1,110
Halogenated organic hydrocarbons (AOX) (t)	3.2	2.2	2.6
Waste			
Total	135,570	154,300	138,340
Disposed of (t)	30,370	25,280	24,090
Recycled (t)	105,200	129,020	114,250
Hazardous (t)	69,000	74,640	73,920
Non-hazardous (t)	66,570	79,660	64,420

¹ CO₂ emissions are measured on the basis of 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 CO₂ emissions. Scope 2: indirect emissions from the generation of purchased energy (converted into CO₂ equivalents for purchased electricity, steam and heat). Conversion is based on emission factors of the International Energy Agency (electricity) and from the GEMIS database (steam and heat).

² CO₂ emissions are broken down into fossil and biogenic sources in accordance with the GHG Protocol. Biogenic emissions arise from the combustion or decomposition of renewable raw materials.

³ The amount of electricity supplied by the affiliate Alzwerke GmbH is included in indirect CO₂ emissions in a climate-neutral manner – because it is not fed into the public grid.

Limited Assurance Report of the Independent Auditor Regarding the Combined Separate Non-Financial Report¹

To the Executive Board of Wacker Chemie Aktiengesellschaft, Munich

We have performed an independent limited assurance engagement on the Combined Separate Non-Financial Report of Wacker Chemie Aktiengesellschaft, Munich and the Group (hereinafter “WACKER”) as well as the parts, qualified by reference, “Group Business Fundamentals”, “Further Information on R&D, Employees, Procurement, Production, Sales and Marketing” and “Risk Management Report” of the Combined Management Report (hereinafter “Report”) according to Sections 315b and 315c in conjunction with 289b to 289e German Commercial Code (HGB) for the business year from January 1 to December 31, 2019.

Management’s Responsibility

The legal representatives of WACKER are responsible for the preparation of the Report in accordance with Sections 315b and 315c in conjunction with 289b to 289e HGB.

This responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the Report and the use of assumptions and estimates for individual sustainability disclosures which are reasonable under the given circumstances. Furthermore, this responsibility includes designing, implementing and maintaining systems and processes relevant for the

preparation of the Report in a way that is free of – intended or unintended – material misstatements.

Independence and Quality Assurance on the Part of the Auditing Firm

We are independent from the entity in accordance with the requirements of independence and quality assurance set out in legal provisions and professional pronouncements and have fulfilled our additional professional obligations in accordance with these requirements.

Our audit firm applies the national statutory provisions and professional pronouncements for quality assurance, in particular the professional code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

Practitioner’s Responsibility

Our responsibility is to express a conclusion on the Report based on our work performed within our limited assurance engagement.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): “Assurance Engagements Other than Audits or Reviews of Historical Financial Information” published by IAASB. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance of whether any matters have come to our attention that cause us to believe that the Report for the period from January 1 to December 31, 2019, has not been prepared, in all material respects, in accordance with Sections 315b and 315c in conjunction with 289b to 289e HGB. We do not, however, provide a separate conclusion for each disclosure. In a limited assurance engagement, the evidence gathering procedures are more limited than in a reasonable assurance engagement and therefore significantly less assurance is obtained than in a reasonable assurance engagement. The choice of audit procedures is subject to the auditor’s own judgement.

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¹ Our engagement applied to the German version of the Report 2019. This text is a translation of the Independent Assurance Report issued in German, whereas the German text is authoritative.

Within the scope of our engagement, we performed amongst others the following procedures:

- Inquiries of personnel on the corporate level who are responsible for the materiality analysis to get an understanding of the process for identifying material topics and respective report boundaries for WACKER
- A risk analysis, including a media search, of relevant information about the sustainability performance of WACKER in the reporting period
- Evaluation of the design and implementation of systems and processes for the collection, processing and monitoring of information on environmental, employee and social matters, respect for human rights, and combating corruption and bribery, including data consolidation
- Inquiries of personnel on the corporate level who are responsible for the collection of the information on concepts, due diligence processes, results and risks, the conduction of internal controls and the information consolidation
- Evaluation of selected internal and external documents
- Analytical evaluation of data and trends of quantitative information which are reported by all sites on the corporate level
- Evaluation of local data collection and reporting processes and reliability of reported data via a sampling survey in Holla (Norway)
- Assessment of the overall presentation of the information

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the Report of WACKER for the business year from January 1 to December 31, 2019 is not prepared, in all material respects, in accordance with Sections 315b and 315c in conjunction with 289b to 289e HGB.

Restriction of Use/Clause on General Engagement Terms

This report is issued for the purposes of the Executive Board of Wacker Chemie Aktiengesellschaft, Munich only. We assume no responsibility with regard to any third parties.

Our assignment for the Executive Board of Wacker Chemie Aktiengesellschaft, Munich, and professional liability is governed by the General Engagement Terms for Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf). By reading and using the information contained in this report, each recipient confirms having taken note of provisions of the General Engagement Terms (including the limitation of our liability for negligence to EUR 4 million as stipulated in No. 9) and accepts the validity of the above-mentioned General Engagement Terms with respect to us.

Munich, February 20, 2020

KPMG AG

Wirtschaftsprüfungsgesellschaft

Original German version signed by:

Andrejewski

Hell

Multiyear Overview

€ million	2019	Change in %	2018	2017	2016	2015
Sales	4,927.6	-1.0	4,978.8	4,924.2	4,634.2	5,296.2
Income before taxes	-591.2	>100	324.4	335.0	246.4	406.7
Net income for the year	-629.6	>100	260.1	884.8	189.3	241.8
EBITDA	783.4	-15.8	930.0	1,014.1	955.5	1,048.8
EBIT	-536.3	>100	389.6	423.7	337.5	473.4
Fixed assets	3,494.1	-19.2	4,324.5	4,209.4	4,765.5	4,964.9
Intangible assets	29.4	-23.2	38.3	41.5	50.4	32.1
Property, plant and equipment	2,652.6	-24.8	3,527.0	3,501.7	4,596.4	4,800.6
Right-of-use assets	119.8	n.a.	—	—	—	—
Financial assets	692.3	-8.8	759.2	666.2	118.7	132.2
Current assets, incl. deferred taxes + prepaid expenses	2,996.9	7.3	2,794.2	2,626.3	2,696.1	2,299.5
Liquidity	435.8	27.8	341.1	286.9	283.5	310.5
Equity	2,029.0	-35.5	3,145.5	3,169.3	2,593.2	2,795.1
Subscribed capital	260.8	—	260.8	260.8	260.8	260.8
Capital reserves	157.4	—	157.4	157.4	157.4	157.4
Treasury shares	-45.1	—	-45.1	-45.1	-45.1	-45.1
Retained earnings, consolidated net income, other equity items	1,593.8	-41.3	2,714.1	2,746.1	2,006.3	2,195.1
Non-controlling interests	62.1	6.5	58.3	50.1	213.8	226.9
Borrowed capital	4,462.0	12.3	3,973.2	3,666.4	4,868.4	4,469.3
Provisions	2,525.0	23.1	2,051.1	2,042.8	2,550.7	1,996.7
Liabilities, incl. deferred taxes + deferred income	1,937.0	0.8	1,922.1	1,623.6	2,317.7	2,472.6
Net financial debt (-)						
Net financial receivables (+)	-713.7	17.1	-609.7	-454.4	-992.5	-1,074.0
Total assets	6,491.0	-8.8	7,118.7	6,835.7	7,461.6	7,264.4
Employees (average for the year)	14,751	3.1	14,301	13,723	13,307	16,937
Employees (Dec. 31)	14,658	0.8	14,542	13,811	13,448	16,972
Employees (total)	14,658	0.8	14,542	13,811	13,448	16,972

€ million	2019	Change in %	2018	2017	2016	2015
Key profitability figures						
Return on sales (EBIT) = EBIT/sales (%)	-10.9	n.a.	7.8	8.6	7.3	8.9
Return on sales (EBITDA) = EBITDA/sales (%)	15.9	n.a.	18.7	20.6	20.6	19.8
Return on equity = net income for the year/equity (as of Dec. 31) (%)	-31.0	n.a.	8.3	27.9	7.3	8.7
ROCE – return on capital employed = EBIT/capital employed (%)	-11.3	n.a.	5.9	7.5	6.4	8.1
Key statement-of-financial-position figures						
Investment intensity of fixed assets = fixed assets/total assets (%)	53.8	n.a.	60.7	61.6	63.9	68.3
Equity ratio = equity/total assets (%)	31.3	n.a.	44.2	46.4	34.8	38.5
Capital structure = equity/borrowed capital (%)	45.5	n.a.	79.2	86.4	53.3	62.5
Cash flow and investments						
Cash flow from operating activities	605.0	18.7	509.6	613.0	621.0	617.2
Cash flow from long-term investing activities – before securities	-420.6	-0.7	-423.4	-325.0	-420.3	-815.6
Cash flow from financing activities	-26.2	-89.1	-240.5	-333.1	-135.8	57.9
Net cash flow = CF from operating activities + CF from investing activities – additions from finance leases	184.4	>100	86.2	358.1	361.1	22.5
Investments	379.5	-17.7	460.9	326.8	338.1	834.0
Share and valuation						
Consolidated net income	-629.6	>100	260.1	884.8	189.3	241.8
Earnings per share (€) = consolidated net income/number of shares	-12.94	>100	4.95	17.45	3.61	4.97
Market capitalization (total number of shares without treasury shares)	3,360.2	-14.5	3,929.5	8,057.8	4,910.7	3,851.0
Number of shares	49,677,983	-	49,677,983	49,677,983	49,677,983	49,677,983
Price as of reporting date (Dec. 31)	67.64	-14.5	79.10	162.20	98.85	77.52
Dividend per share (€)	0.50	-80.0	2.50	4.50	2.00	2.00
Dividend yield (%)	0.7	n.a.	2.1	4.0	2.6	2.2
Capital employed	5,183.5	5.4	4,917.0	5,138.3	5,300.4	5,875.4

Chemical Glossary

Biotechnology

Biotech processes use living cells or enzymes to transform or produce substances. Depending on the application, a distinction is made between red, green and white biotechnology. Red biotechnology: medical and pharmaceutical applications. Green biotechnology: agricultural applications. White biotechnology: biotech-based products and industrial processes, e.g. in the chemical, textile and food industries.

Chlorosilanes

Compounds of silicon, chlorine and, in some cases, hydrogen. The semiconductor industry mainly uses trichlorosilane to make polysilicon and for the epitaxial deposition of silicon.

Combined Heat and Power Plant

Combined heat and power (CHP) plants generate both electricity and useful heat. This system can be much more efficient at using the input energy (e.g. fuel oil or natural gas) than are conventional systems with separate facilities. Because primary energy is conserved, CHP plants emit significantly less carbon dioxide than conventional power plants.

Cyclodextrins

Cyclodextrins belong to the family of cyclic oligosaccharides (i.e. ring-shaped sugar molecules). They are able to encapsulate foreign substances such as fragrances and to release active ingredients at a controlled rate. WACKER BIOSOLUTIONS produces and markets cyclodextrins.

Cysteine

Cysteine is a sulfur-containing amino acid. It belongs to the non-essential amino acids, as it can be formed in the body. It is used, for example, as an additive in foods and cough mixtures. Cysteine and its derivatives are a business field at WACKER BIOSOLUTIONS.

Dispersible Polymer Powders

Created by drying dispersions in spray or disc dryers. VINNAPAS® polymer powders are recommended as binders in the construction industry, e.g. for tile adhesives, self-leveling compounds and repair mortars. They improve adhesion, cohesion, flexibility and flexural strength as well as water-retention and processing properties.

Dispersions

Binary system in which one solid component is finely dispersed in another. VINNAPAS® dispersions are vinyl-acetate-based copolymers and terpolymers in liquid form. They are mainly used as binders in the construction industry, e.g. for grouts, plasters and primers.

Elastomers

Polymers that exhibit almost perfectly elastic behavior, i.e. they deform when acted upon by an external force and return to their exact original shape when the force is removed. While the duration of the force has no effect on perfectly elastic behavior, the temperature does.

Emission

Substance outputs, noise, vibrations, light, heat or radiation emitted into the environment by an industrial plant.

Ethylene

A colorless, slightly sweet-smelling gas that, under normal conditions, is lighter than air. It is needed as a chemical starting product for a great many synthetic materials, including polyethylene and polystyrene. It is used to make products for the household, agricultural, automotive and construction sectors, among others.

Exterior Insulation and Finish Systems (EIFS)/

External Thermal Insulation Composite Systems (ETICS)

Systems for thermally insulating buildings and thus for increasing energy efficiency. These systems have a multilayer structure: adhesive mortar, thermal insulating panels, embedding mortar, glass fiber mesh and finishing coat. VINNAPAS® polymer powders from WACKER POLYMERS ensure that the insulation material bonds firmly to the mortar and finish coat. As a result, the insulating system offers greater durability and much more resistance to weathering and wear.

Fermentation

In biotechnology, fermentation means the conversion of biological materials by means of bacterial, fungal and cell cultures, or by the addition of enzymes. For example, products such as insulin, many different antibiotics and amino acids (e.g. cysteine) can be synthesized on an industrial scale in bioreactors using microorganisms.

Immission

Substance inputs, noise, vibrations, light, heat or radiation that affect humans, animals, plants, soil, water, air, and cultural and other material assets.

Net Production

Net production is calculated by subtracting the internal reuse of products from the gross production of a plant or site. Gross production corresponds to the total production (target products and byproducts) of a plant or site.

Polymer

A polymer is a large molecule made up of smaller molecular units (monomers). It contains between 10,000 and 100,000 monomers. Polymers can be long or ball-shaped.

Polymer Blends

The result of mixing different polymers is known as a polymer blend (polymer alloy). If these polymer blends are composed of biopolymers (biodegradable and/or renewable raw materials), the VINNEX® binder system may enhance compatibility and hence their properties.

Polysilicon

Hyperpure polycrystalline silicon from WACKER POLYSILICON is used for manufacturing wafers for the electronics and solar industries. To produce it, metallurgical-grade silicon is converted into liquid trichlorosilane, highly distilled and deposited in hyperpure form at 1,000 °C.

Primary Energy

Primary energy is obtained from naturally occurring sources such as coal, gas, oil or wind. Secondary energy, in contrast, is derived from primary energy via a transformation process (which often involves energy losses); examples include electricity, heat and hydrogen.

Silanes

Silanes are used as monomers for the synthesis of siloxanes or sold directly as reagents or raw materials. Typical applications include surface treatment, agents (medically active substances) in pharmaceutical synthesis, and coupling agents for coatings.

Silica

Collective term for compounds with the general formula $\text{SiO}_2 \cdot n\text{H}_2\text{O}$. Synthetic silicas are obtained from sand. On the basis of the method of production, a distinction is made between precipitated silicas and pyrogenic silicas (such as HDK®).

Silica, Pyrogenic

White, synthetic, amorphous silicon dioxide (SiO_2) in powder form, made by flame hydrolysis of silicon compounds. Variously used as an additive for silicone rubber grades, sealants, surface coatings, pharmaceuticals and cosmetics.

Silicon

After oxygen, silicon is the most common element in the earth's crust. In nature, it occurs without exception in the form of compounds, chiefly silicon dioxide and silicates. Silicon is obtained through energy-intensive reaction of quartz sand with carbon and is the most important raw material in the electronics industry.

Silicones

General term used to describe compounds of organic molecules and silicon. According to their areas of application, silicones can be classified as fluids, resins or rubber grades. Silicones are characterized by a myriad of outstanding properties. Typical areas of application include construction, the electrical and electronics industries, shipping and transportation, textiles and paper coatings.

Siloxanes

Systematic name given to compounds comprising silicon atoms linked together via oxygen atoms and with the remaining valences occupied by hydrogen or organic groups. Siloxanes are the building blocks for the polymers (polysiloxane and polyorganosiloxane) that form silicones.

VINNAPAS®

VINNAPAS® is WACKER's brand name for dispersions, dispersible polymer powders, solid resins and their associated product solutions. VINNAPAS® dispersions and polymer powders are primarily used in the construction industry as polymeric binders, e.g. in tile adhesives, exterior insulation and finish systems (EIFS)/external thermal insulation composite systems (ETICS), self-leveling compounds, and plasters.

Volatile Organic Compounds (voc)

Volatile organic compounds (voc) are gaseous and vaporous substances of organic origin that are present in the air. They include hydrocarbons, alcohols, aldehydes and organic acids. Solvents, liquid fuels and synthetic substances can be vocs, as can organic compounds originating from biological processes. High voc concentrations can be irritating to the eyes, nose and throat and may cause headaches, dizziness and tiredness.

Wacker Operating System (wos)

The "Wacker Operating System" (wos) program bundles, promotes and processes corporate projects for systematic process improvement. It is the basis for a groupwide improvement initiative by WACKER.

Financial Glossary

Business Value Contribution (BVC)

BVC is a financial performance measurement that determines the value created by the WACKER Group and its units once all capital costs have been deducted. BVC is the difference between profit (EBIT) and cost of capital (WACC x CE). BVC is a profit variable that is adjusted to allow for extraordinary effects (e.g. sale of parts of the company). This makes it an ideal tool for measuring business performance.

Capital Employed (CE)

Capital employed is the sum of average noncurrent assets (less noncurrent securities and deferred tax assets), plus inventories and trade receivables (less trade payables). It is the variable used in calculating the cost of capital.

EBIT

Earnings before interest and taxes: EBIT is a good indicator for comparing companies' profitability, since it is widely used across the corporate world.

EBITDA

Earnings before interest, taxes, depreciation and amortization.

Equity Ratio

The equity ratio is equity as a percentage of a company's total assets. It is a measure of a company's economic and financial stability.

IFRS

The International Financial Reporting Standards (until 2001 International Accounting Standards, IAS) are compiled and published by the London-based International Accounting Standards Board (IASB). Since 2005, publicly listed EU-based companies have been required to use IFRS in accordance with IAS regulations.

Net Cash Flow

Net cash flow is the sum of cash flow from operating activities and cash flow from long-term investing activities (before securities).

Return on Capital Employed (ROCE)

Return on capital employed is the profitability ratio relating to the capital employed. It is defined as earnings before interest and taxes (EBIT) divided by capital employed. Investment income from Siltronic AG and the corresponding carrying amount in equity are not included when calculating ROCE. ROCE is a clear indicator of how profitably the capital required for business operations is being employed. It is influenced not only by profitability, but also by capital intensity with regard to noncurrent assets required for business operations and to working capital. ROCE is reviewed annually as part of our planning process and is a key criterion for managing our capital expenditure budget.

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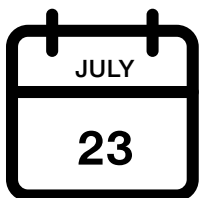
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