WACKER

Annual Report

Health and Nutrition —
The Basis for Good Living

2020

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	Dec. 31, 2020	Dec. 31, 2019	Change in %
Results/Return/Cash Flow			
Sales	**4,692.2**	4,927.6	–4.8
EBITDA[1]	**666.3**	783.4	–14.9
EBITDA margin[2] (%)	**14.2**	15.9	–10.7
EBIT[3]	**262.8**	–536.3	n.a.
EBIT margin[2] (%)	**5.6**	–10.9	n.a.
Financial result	**–44.9**	–54.9	–18.2
Income before income taxes	**217.9**	–591.2	n.a.
Net result for the year	**202.3**	–629.6	n.a.
Earnings per share (basic/diluted) (€)	**3.81**	–12.94	n.a.
ROCE (%)	**5.6**	–11.3	n.a.
Financial Position/Cash Flow			
Total assets	**6,950.5**	6,491.0	7.1
Equity	**1,691.8**	2,029.0	–16.6
Equity ratio (%)	**24.3**	31.3	–22.1
Financing liabilities	**1,405.5**	1,258.9	11.6
Net financial debt[4]	**67.5**	713.7	–90.5
Capital expenditures[5]	**224.4**	379.5	–40.9
Depreciation/amortization and impairments	**–403.5**	–1,319.7	–69.4
Net cash flow[6]	**697.7**	184.4	>100
Research and Development			
Research and development expenses	**156.6**	173.3	–9.6
Employees			
Personnel expenses	**1,329.4**	1,253.8	6.0
Employees (December 31, number)	**14,283**	14,658	–2.6

[1] EBITDA is EBIT before depreciation and amortization.
[2] Margins are calculated based on sales.
[3] EBIT is the result from continuing operations for the period before interest and other financial results, 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

2020

WACKER

Health and Nutrition — The Basis for Good Living

Key Events

2020

January

After being commissioned in 2019, the new gas turbine for the Burghausen site's captive power plant is now in operation. This reduces CO_2 emissions by 300,000 metric tons and nitrogen oxides by 30 percent. The electricity generated is easier to adjust to actual electricity needs. The 135-megawatt power plant is a significant factor in securing the site's supply of electricity and energy.

March

Due to the coronavirus pandemic, WACKER donated 11,000 liters of isopropyl alcohol to make 15,000 liters of disinfectants for Bavarian hospitals and care facilities.

April

Production of silicone cartridges at the company's Nünchritz site, which began late 1998/early 1999, reached one billion units.

May

The pandemic triggered the biggest decline in WACKER's sales in a single month.

July

WACKER invested in its Amsterdam production facilities for biologics, LMPS (live microbial products) and vaccines.

August

The coronavirus pandemic compelled WACKER to hold its first-ever online Annual Shareholders' Meeting.

September

WACKER opened a competence center for thermal interface materials in Shanghai.

It presented SeungA Lee and JungEun Lee of South Korea with the Alexander Wacker Innovation Award for developing new silicone resins for optical bonding applications.

October

WACKER's Executive Board and employee representatives signed a framework agreement on the Shape the Future efficiency program. By 2022, the Group plans to cut about 1,200 jobs and save a total of €250 million, half in personnel and half in non-personnel costs.

WACKER expanded its capacity for making polymer products in China by investing around US$100 million to build two new production plants at its Nanjing site.

November

WACKER and biopharmaceutical company CureVac signed a contract to produce an mRNA-based vaccine against Covid-19. WACKER's Amsterdam site plans to make around 100 million doses of the CureVac vaccine annually.

December

WACKER's Supervisory Board approved an agreement to sell WACKER's stake in Siltronic AG, its publicly listed associate, to Taiwan's GlobalWafers Co., Ltd. WACKER holds a stake of about 30.8 percent in Siltronic AG. The offer price was €125 per share.

The Supervisory Board took key personnel decisions for the future. Dr. Christian Hartel is to become Wacker Chemie AG's new president and CEO in May 2021. He will succeed Dr. Rudolf Staudigl, who retires at the end of the Annual Shareholders' Meeting. Angela Wörl will join the Executive Board as personnel director.

Health and Nutrition

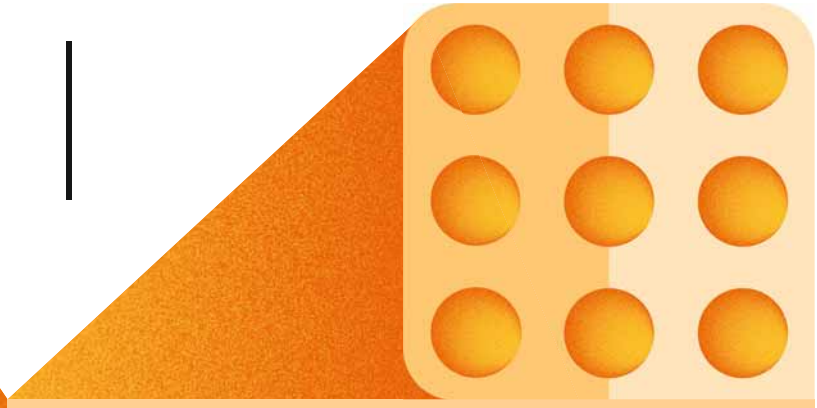
The Basis for Good Living

People prize their health above all else. The ongoing coronavirus pandemic has made the importance of being healthy only too clear to us. Healthy people feel better about themselves, achieve more, take an active part in life, keep in touch socially and ultimately live longer lives. The raw materials, technologies and products that WACKER supplies make a key contribution toward ensuring sound health and – highly topical – combating Covid-19. When we talk about health, we often refer to a healthy diet. Eating well is key to a healthy lifestyle. Here, too, innovative ingredients from WACKER play an invaluable role. They boost heart health, while lowering both cholesterol and blood sugar levels. Our current annual report tells you all about WACKER's expertise in health and nutrition, as well as about the products we make and the potential applications they open up.

Products and Applications

Protecting Your Hands

Skin is damaged by frequent handwashing and the use of disinfectant. Our silicones protect your hands and make them soft and supple.

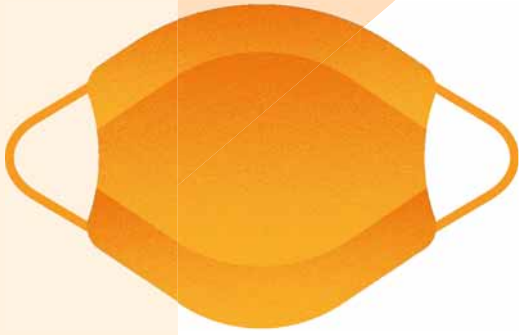


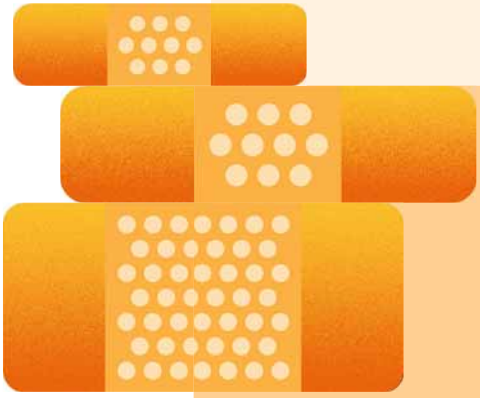
The Right Packaging for Medicine

Our resins help ensure that drugs reach patients safely and intact. When used in tablet blister packs, these resins make sure that the aluminum foil and plastic adhere firmly to each other, yet make it easy to open the pack. Germs and air humidity, which might adversely affect the medicine, don't stand a chance.

Safety's the Name of the Game

Polymer binders make the nonwoven fabrics in protective clothing comfortable and hard-wearing. Thanks to their antiviral properties, cyclodextrins provide additional safety.





Painless Separation Guaranteed

It's not always easy to take optimum care of injuries and wounds. That's why doctors and the chronically ill use silicone-coated wound dressings. This kind of dressing can be changed more conveniently and ensures optimum healing of wounds.

14
Si
Silicium
28,085

Elemental Building Block for All Silicones

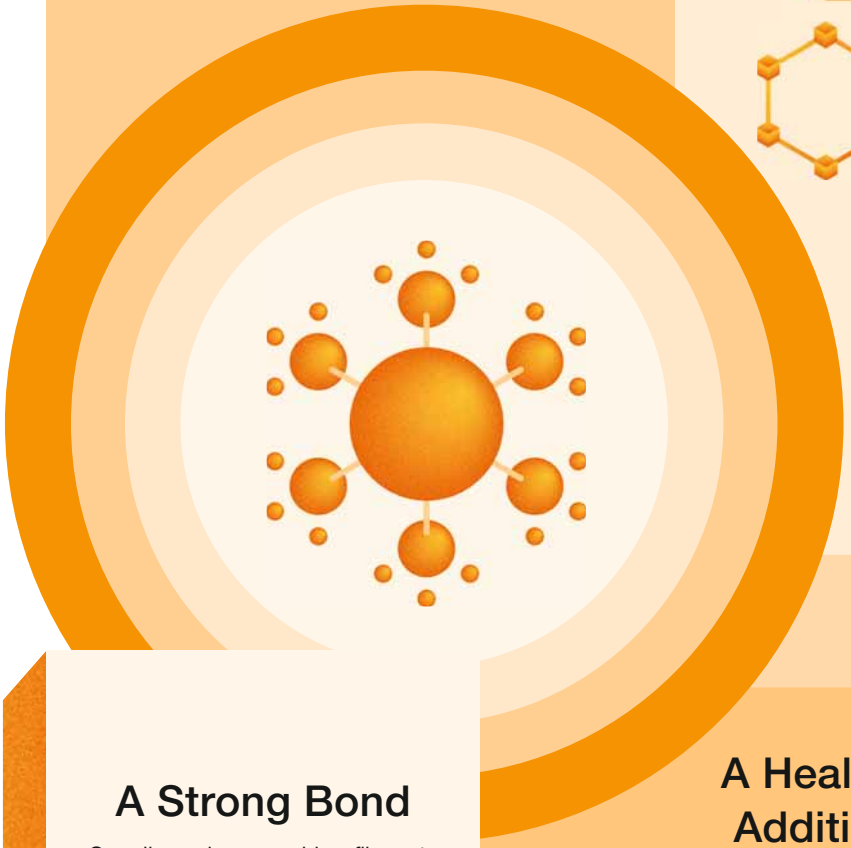
Silicon and oxygen form the backbone of silicones. The same goes for our medical silicone rubber compounds. Their elasticity, purity and ready compatibility mean they are often used in respirators, ventilators and infusion sets. Manufacturers of artificial limbs and orthopedic aids are among those who rely on silicone rubber.

Get Healthy, Stay Healthy

Pharmaceutical companies contract us to manufacture biopharmaceuticals: therapeutic proteins, vaccines and live microbial products.

Microtransporters

Our cyclodextrins help convey hard-to-dissolve drugs into a patient's body, where they can take effect. These ring-shaped sugar molecules enhance the solubility and bioavailability of such substances.



A Strong Bond

Our dispersions combine fibers to form nonwoven fabrics that are used to make disposable wipes: tear-resistant, absorbent and versatile.

A Healthy Addition

We produce nature-identical plant compounds and improve the bioavailability of naturally occurring substances. Our bioactive ingredients provide solutions for formulating effective food supplements – thereby promoting a healthy lifestyle.

Staying Fit and Healthy

Fitness trackers and smart fabrics measure your heartbeat, or send electrical impulses to help build muscle. Our high-tech silicones make sure there is an ideal connection between your skin and the sensors.

Active Ingredients

Producing Vaccines by the Second

A lot of pieces need to fall into place on the journey from a vaccine to a global victory over the coronavirus pandemic. One of those pieces is Wacker Biotech. As a contract manufacturer, the company produces drug substances for pharmaceutical companies, and will also soon be making an active ingredient that will form part of a vaccine candidate for the SARS-CoV-2 coronavirus.

When Alexander Fleming discovered penicillin nearly 100 years ago, he felt that he was on the cusp of a major breakthrough. And it turned out he was right, as antibiotics have since saved millions of lives. Of course, putting Fleming's discovery to therapeutic use took more than a decade. The production process and manufacturing capacity held up implementation, forfeiting valuable time.

As the history of penicillin shows, the struggle against bacteria and viruses plays out in more than just test tubes. From the development of a drug substance to production and distribution – diseases are conquered only when a considerable number of pieces fall into place.

"We're incredibly proud that we can play a role in the fight against the pandemic."

Sandra Verhaagh,
Production Head at Wacker Biotech

Over the past months, an entire army of scientists has once again found itself on the cusp of a major breakthrough, with the search for a vaccine for SARS-CoV-2 shifting into high gear. The search was a success. We now have multiple vaccines that have been proven effective, and instead of taking eight to ten years, the vaccine development phase was cut to just twelve months.

– B

A
I
Wacker Biotech has more than 20 years of experience in manufacturing vaccines.

B
I
Production facilities in Amsterdam cover several floors.

The next step is production. We will need billions of doses to rein in the pandemic, and the race for available production capacity is well underway. A few candidates have been in production for months in anticipation of official authorization. But if they aren't approved, that work will have been in vain. Pharmaceutical companies, researchers and governments throughout the world are working hand in hand to make these endeavors a success.

Twenty Years of Experience Producing Vaccines

One of the pieces of the vaccine puzzle is Wacker Biotech. For 20 years now, this subsidiary of Wacker Chemie AG has been working behind the scenes to produce vaccines. The experts at Biotech develop production processes on a laboratory scale, while their plants produce drug substances that subsequently form part of vaccines and other innovative biopharmaceuticals. Their customers operate in the pharmaceutical and biotech industries.

One of them is CureVac, a Tübingen-based biotech company that has contracted Wacker Biotech to produce the drug substance for its Covid-19 vaccine candidate CVnCoV. Production is set to begin at Wacker Biotech's Amsterdam site in the first half of 2021, and preparations are already underway.

The brick building housing Wacker Biotech is located in the Zuid Oost district of Amsterdam. A transparent, glass dome in the middle of the building lets in daylight. It is lined with reactors, stainless-steel tanks and computer monitors. In recent months, production has been set up here especially for manufacturing what are known as mRNA vaccines – a new class of vaccine that has raised tremendous hopes in the fight against the coronavirus pandemic. If approval is granted, there are plans to produce more than 100 million doses of CureVac's mRNA drug substance per year at Wacker Biotech. That's three doses of vaccine per second.

"We're incredibly proud that we can play a role in the fight against the pandemic," says Sandra Verhaagh, who heads up production at Wacker Biotech. It normally takes several months to transfer the production process for a customer's vaccine so that initial test runs can begin at Wacker Biotech. But CVnCoV is following a very different timeline. "You might say we transferred the process at light speed," she observes. The company procured special equipment for the production process, purchased raw materials and established analytical and documentation processes – a major feat for everyone involved.

A Broad Vaccine Portfolio

mRNA vaccines are new territory for Wacker Biotech too. Up to now, the company's portfolio comprised conventional live and killed vaccines as well as protein-based, polysaccharide and conjugate vaccines, such as those that combat cholera or meningitis A.

"It fascinates me that we can make something that doesn't just heal people – it is a preventive measure that keeps them healthy too," says Verhaagh, a molecular biologist who has spent nearly her entire career working on vaccines in all of their forms. "Not all vaccines are created equal," she explains. "One option is to use the pathogen itself as a vaccine – in either a weakened or inactive form." The organisms in live vaccines are capable of reproducing, but they can no longer cause illness. Many of these vaccines – those that prevent childhood diseases such as mumps, measles and rubella – confer life-long immunity. Inactivated vaccines on the other hand, which are also referred to as killed vaccines, contain either a dead pathogen or part of an inactive virus to which the immune system responds. The protective immunity provided by killed vaccines generally only lasts for a few years, after which it will need to be refreshed.

Most of today's vaccines are killed varieties developed from only select molecules of a pathogen, and these are commonly genetically engineered. These kinds of vaccines contain individual characteristic proteins of a pathogen that are intended to produce an immune response within the body. For these to work, boosters known as adjuvants usually need to be added. The same applies to what are known as polysaccharide vaccines, which use polysaccharides

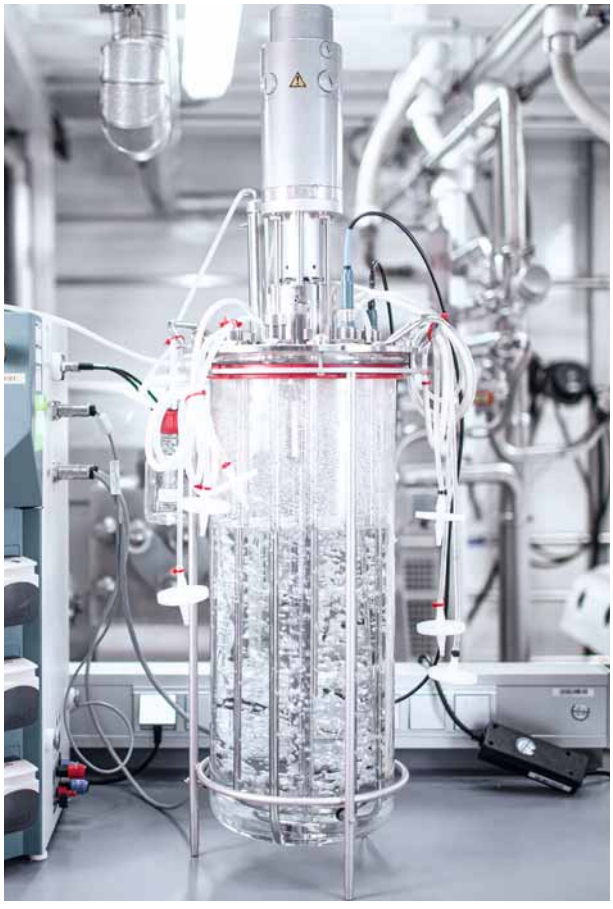
Wacker Biotech

As a CDMO (contract development and manufacturing organization), Wacker Biotech pools the WACKER Group's biopharmaceutical activities. The company works on behalf of pharmaceutical and biotech firms to make therapeutic proteins, live microbial products (LMPS) and vaccines based on microbial systems. Its portfolio extends from strain/process development and analytical testing through to production for clinical and commercial applications in compliance with good manufacturing practice (GMP) guidelines. Wacker Biotech maintains three production sites: Jena and Halle in Germany (Wacker Biotech GmbH) as well as Amsterdam in the Netherlands (Wacker Biotech B.V.).

C —

D —

E —



— F

— G

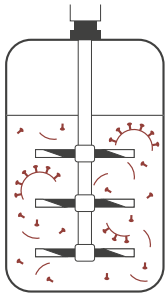
C/D/G
I
Regular quality control: vaccine samples undergoing analysis.

E
I
Fermenters are used to make conventional vaccines.

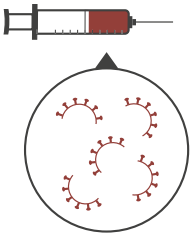
F
I
Taking samples from a fermenter: with a capacity of 1,500 liters, this is the site's largest bioreactor.

How mRNA Vaccines Differ from Conventional Ones

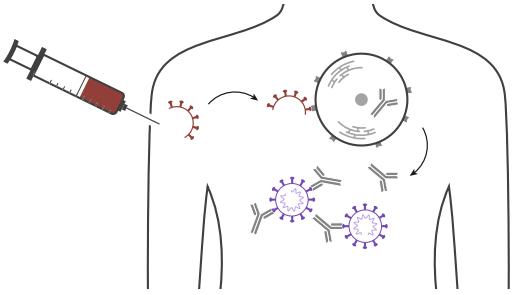
Conventional vaccine



Antigens (parts of the pathogen) are produced industrially, for example in bioreactors.



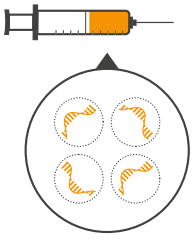
The vaccine contains the antigen.



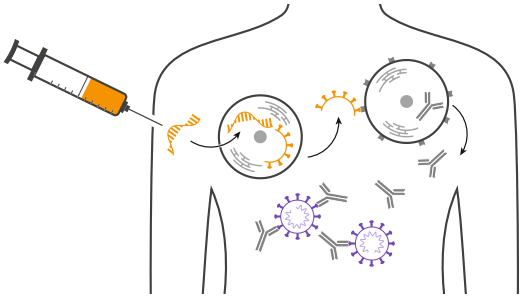
The antigen is injected. The immune system produces antibodies, resulting in immunization.

mRNA vaccine

The mRNA is generated by enzymes and a DNA template.



The vaccine contains only the blueprint for an antigen.



The mRNA gives the cell instructions for producing the antigen and stimulates the immune system.

taken from the shell of a pathogen to prompt an immune response. In order to amplify the effect, polysaccharides are often bound to proteins, in which case they are referred to as conjugate vaccines.

A New Class of Vaccines

Gene-based vaccines offer a new approach. In this case, immunization does not involve injecting pathogens or parts of pathogens – patients instead merely receive the genetic information needed to produce an individual antigen. The vaccines come in three categories: mRNA, DNA and vector vaccines.

The concept behind mRNA vaccines revolves entirely around messenger ribonucleic acid, a key molecule in the human body. As a messenger, its role is to transport assembly instructions between our genetic material and the protein factories in our cells. By synthesizing mRNA and transporting it into cells, scientists could instruct the body to manufacture a specific protein that would trigger an immune response. In the example of CureVac's vaccine CVnCoV, the mRNA is encoded for the spike protein of the SARS-CoV-2 virus. A key issue: when an mRNA vaccine is injected into a patient, the mRNA does not enter the cell nucleus. What is more, single-stranded RNA is not compatible with double-stranded DNA. In other words, the vaccine cannot alter our genetic material. Scientists confirm this, including those from the Paul-Ehrlich-Institut, which is responsible for approving vaccines in Germany.

Vaccine Production: A Science unto Itself

The processes for manufacturing different classes of vaccines are as diverse as the vaccines themselves. "Vaccine production is a science unto itself," says Verhaagh. "Every vaccine is different, and every production process is unique, involving a considerable degree of scientific and technical expertise." Production proceeds in multiple steps, which vary depending on the type of vaccine. In the first step, precultures of the vaccine candidate provided by the customer are prepared on a small scale. For a conventional vaccine, this is followed by scaling up production in stainless-steel tanks called fermenters or in single-use reactors. Here, bacteria multiply and produce the target active substance – in the case of a conjugate vaccine, they build the desired polysaccharides. In the next stage, the polysaccharides undergo multiple purification steps,

after which they are chemically activated and lyophilized (i.e. freeze-dried) and, in the final step, bound to the carrier protein to form the finished conjugate vaccine. It's a long, drawn-out process.

By comparison, production of an mRNA-based vaccine is more efficient. "You don't have to culture the pathogen itself. And that eliminates a very time-consuming step," Verhaagh explains. The starting material for production is plasmid DNA with parts of the pathogen DNA. It is transcribed by enzymes into mRNA. The active substance is then purified using chromatography. "You can't have any kind of impurities in the production process," she adds. Vaccine production is therefore subject to very strict hygiene regulations.

From Clinical Trials to Supplying the Market

Multiple fermenters with capacities of up to 1,500 liters are available for producing biopharmaceutical therapeutic agents and conventional vaccines in Amsterdam and at Jena and Halle, the two Biotech sites in Germany. This allows the company to adapt production volumes as needed – small quantities for clinical trials, larger amounts for supplying the market later on – all depending on the phase of development that the customer's vaccine has reached. These facilities are about to be complemented by a new production line for mRNA-based vaccines, which will soon go on stream in Amsterdam.

Ultrapure Production Conditions

Cleanroom conditions apply to the entire production process, and spaces where finished vaccines are dispensed are subject to the most stringent cleanroom category. After production in Amsterdam, the different vaccines can either be freeze-dried or dispensed into vials. "The general rule of thumb is: the closer you get to the end product, the stricter the regulations," says Verhaagh. For employees, this means protective clothing from head to toe. Even one grain of dust is one too many.

Several vaccine projects are currently underway in Amsterdam: while Verhaagh and her colleagues prepare for the CVnCoV production launch, the company is producing a conventional conjugate vaccine in parallel. This vaccine will soon be approved, too – though not for use against SARS-CoV-2. If CVnCoV is successfully approved, production will be expanded to include the manufacture of the mRNA drug substance. The huge number of vaccine doses needed cannot be produced any other way. For Sandra Verhaagh, that means conducting a lot of interviews these days. Whether in production, quality control or quality assurance, Wacker Biotech needs additional personnel at its Amsterdam site – in order to finally complete the vaccine puzzle.

Vaccines made at the Amsterdam site can be dispensed into vials if required.

Cornerstones of Modern Medicine

They're on your skin, in your digestive tract, in the air and on the sea floor: we're surrounded by billions of bacteria and viruses. Invisible to the naked eye, most of these tiny organisms are harmless, and some of them are even critical to our survival. Some, however, make us sick, potentially triggering severe, even life-threatening illnesses. Vaccines offer long-lasting protection from an array of infectious diseases, tricking the body into believing it has been infected with a pathogen. The immune system responds by producing antibodies to fight the pathogen. If an individual is then infected at some later point in time, their immune system will remember the pathogen and reactivate. This is how the vaccines work that protect us from polio, typhoid fever, cholera, hepatitis A and B, HPV and smallpox, which has been eradicated since 1980 thanks to a global immunization campaign. The list is long. And it brings home one important lesson: alongside the development of antibiotics, vaccines are the cornerstones of modern medicine. The World Health Organization estimates that vaccines save two to three million lives each year and prevent countless people from falling ill.

Personal Care

Effective Skin Protection

Skin creams, make-up and hair-care products are key applications in WACKER's silicones business. The Consumer Care segment's high-margin specialty silicones are essential ingredients in such products. Last year saw the emergence of skin care as a major issue worldwide, with increased hand hygiene in response to coronavirus taking its toll on the human body's largest organ.

A

Cássia Picirili, like many people in Brazil and elsewhere these days, is living her life at home. For months now, the only place she has seen the five women in her team is on her laptop. "We're being good and staying at home," she says, with a laugh. The silicones expert, who has worked at WACKER's South American headquarters near São Paulo for three years, is trying to stay positive.

Despite having to work from home, her team has developed a whole range of ideas for personal-care and cosmetic products aimed specifically at routines altered by the pandemic. She is proud to have formulated a new hand sanitizer that protects the skin. Frequent handwashing leaves the skin rough and cracked, and the alcohol in sanitizers does its own damage. In response, Picirili's team tested disinfectants containing silicones on blackberry leaves. In the presence of protective silicone, the test leaf stayed fresh and green after 24 hours; where there was no silicone, the leaf darkened and dried up.

A

Cássia Picirili from São Paulo is an expert in silicones. She has developed skin-friendly hand sanitizers.

B

Blackberry leaves react extremely sensitively to strong disinfectants – just as human skin does.

B

C –

C
I
The products that WACKER makes in São Paulo include silicone emulsions for the cosmetics and personal-care sectors.

“We are all affected by current market developments, and knowledge is transferred in all directions.”

Dr. Timo Hagemeister, Director of Consumer Silicones, Europe, Middle East and Africa

The ideas of her team are being picked up globally. WACKER colleagues in Germany repeated the experiment, using raspberry leaves instead of blackberry, and got similarly good results. “We are all affected by current market developments, and knowledge gets transferred in all directions,” says Dr. Timo Hagemeister, responsible for WACKER’s consumer-related silicone business in Europe, Africa and the Middle East. “Our Consumer Care team offers the worldwide product and application expertise in silicones expected by the likes of Unilever or L’Oréal.”

Sustainably manufactured products are gaining in popularity in the segment. With the introduction of BELSIL® eco, WACKER can now offer ingredients for such products. Biobased methanol is used for manufacturing, compensating for fossil-based components. The process is climate-friendly and conserves resources – an ideal starting point for the sustainable manufacture of skin creams, shampoos, conditioners and lotions. More and more WACKER customers are ordering such silicones. For personal-care companies whose customers demand products that are more climate-friendly, “fossil-free” is a key message. “We’re talking to all the majors about this,” says Hagemeister.

Silicones are also capable of protecting the skin under maximum stress conditions. Poor air quality is one of worst problems affecting the populations of Asian megacities. Day after day, the skin is damaged by particulate matter, ozone, exhaust fumes and cigarette smoke. In response, technical service engineers at WACKER developed a formulation containing its nature-identical hydroxytyrosol HTEssence®. It counteracts harmful environmental factors, decreases oxidative stress and promotes the regeneration of the skin.

In Cássia Picirili’s homeland Brazil, protecting the skin from sunlight is crucial. To that end, her team has developed new specialty-silicone formulations in the laboratory. Such creams are highly repellent to water and sand and are easy to apply to the skin. The easier it is to spread the vital UV filter, the better the protection. Scientific studies have shown that the more easily a sunscreen can be applied to the skin, the more widely it is used.

Microinjection

Precisely Pumped Dosages

Handy medical devices make life easier for people with chronic conditions. Automated dosing systems are gradually replacing regular injections of essential medication. At the heart of such devices is a microinjection pump made with a housing of the kind developed by Trelleborg, a polymer processor. This required a new silicone elastomer with very special properties.

Morning, noon and night – no matter the hour, people with chronic illnesses always need to monitor their bodies. Diabetics have to check their insulin level. People suffering from Parkinson's need to adjust their apomorphine dosage. Incorrect dosage of medication can be life-threatening. Some of the diseases mentioned can be managed well with drugs that must be injected subcutaneously: small jabs that perform a vital function. Portable medical devices such as insulin pens are especially convenient, enabling the fast and safe injection of liquid medication in everyday situations. They fit in every purse and can be used without attracting attention. The patient, however, still needs to remember the dosage and timing precisely.

Automated dosing systems now go one step further. These palm-sized medical devices can be attached directly to the skin with adhesive plasters, for example. Located on the surface in contact with the patient is an extremely fine needle that extends automatically to inject a preprogrammed quantity of medicine subcutaneously – without the patient having to make a single move. Precise control regulates even delivery of as little as a few microliters of active ingredient over a period of minutes, hours or even several days. This improves the quality of life of those affected, granting them more flexibility and making their lives worry-free.

The centerpiece of these medical devices is a tiny microinjection pump that reliably delivers precise doses of the essential medication. Trelleborg was commissioned by

A
I
An inconspicuous, albeit technically perfect part: the plastic pump cylinder is lined with a fine, yet multifunctional, layer of silicone elastomer.

“The pump’s ability to administer extremely precise doses of drugs was crucial to the success of the entire device.”

Felix Schädler, Project Manager for Innovation and Technology at Trelleborg

B I The microinjection pump developed by Felix Schädler and his team at Trelleborg is not much bigger than a fingernail.

one of the world’s leading suppliers of pharmaceutical and medical products to help develop a pump housing made of plastic and silicone. Deep inside this part, a unique, innovative material from WACKER ensures smooth operation. Felix Schädler, who is project manager for innovation and technology at Trelleborg and played a key role in the development, reports that “the pump’s extremely precise dosage of drugs was crucial to the success of the entire device.”

Tiny Parts in Mass Production

The delicate microinjection pump consists of a cylindrical hollow body in which a plunger is moved up and down electrically. It draws the drug from a supply vessel and conveys it to the injection needle. The pump housing comes in different versions that can deliver 2 µl or 10 µl of liquid medication. With a length of 15 mm, the smaller pump is not much bigger than a fingernail. Friction, sealing and the bonding of two different materials in a very tight space posed a challenge to the developers from the start. In addition to wanting a compact design, the customer also attached importance to the lowest possible cost, as the injection pump in the final medical device is a single-use product. For safety reasons, all those elements of the dosing system that come into contact with the medication or the patient must be disposed of after use. That also includes the injection pump. But other components, like the housing, motor and battery, can be reused.

“Due to the compact dimensions and low tolerances involved, the part could only be manufactured using two-component injection molding with seals made of liquid silicone rubber,” Schädler says. Diameters the size of a pin make it impossible to insert localized seals subsequently. The special two-component processing method efficiently bonds two different materials in a single step. The idea was that an almost complete inner lining of the pump cylinder with elastomer should seal the moving plunger and lubricate it at the same time.

Processing liquid silicone rubber (LSR) is the field of expertise at Trelleborg’s Stein am Rhein site in Switzerland, where one- and multicomponent injection-molded LSR parts are manufactured in a fully automated process. In addition to products for the automotive and industrial sectors, Stein am Rhein has a comprehensive cleanroom production facility for medical technology applications. The facility, whose capacity is set to expand, currently has four cleanrooms, where production takes place under strictly controlled and monitored conditions. “The capacity created by the most recent cleanroom expansion five years ago is already being fully utilized, so we are currently expanding again,” Schädler reveals. Two-component injection molding was already common for automotive parts but was less in demand for medical applications. Citing increased pressure on the sector in terms of risk and cost reduction, Schädler explained that that was beginning to change. “What’s more, self-adhesive LSR grades have now become available for food-contact and medical applications,” he adds, “making two-component injection molding possible for these applications for the first time.” Dr. Ulrich Frenzel and Dr. Florian Liesener, who both work in technical marketing at WACKER, couldn’t agree more. They collaborate closely with Trelleborg and, looking back, they consider their microinjection pump to be a very special achievement in materials development.

I
C

— D

C
I
View of the two-component injection-molding tool. In one production cycle, the plastic part is first manufactured on the two mold halves, and the silicone elastomer is injected immediately afterwards.

D
I
Dr. Florian Liesener is an expert in silicones. Here, he is testing a two-component compound. The self-adhesive silicone bonds reliably with the thermoplastic base part.

E
I
An innovative material consisting of a silicone resin and a crosslinker component, SILPURAN® 6760/50 enables sealing and high friction in the smallest of spaces.

When thermoplastic elastomer (TPE) proved unsuitable for this specific application, Schädler and his team initially turned to SILPURAN® 6700 self-adhesive liquid silicone rubber. WACKER has marketed specially developed silicones for medical technology under the SILPURAN® brand for a little over 10 years. Frenzel, a trained chemist, explains: "In this LSR line for sensitive applications, we use special formulations that can satisfy particularly demanding purity requirements, setting them apart from our silicones for engineering products."

Specialty Line Enables Efficient Production

When it launched in 2008, SILPURAN® 6700 was WACKER's first self-adhesive LSR line marketed specifically for applications in medical technology. Their exceptional adhesion to any number of thermoplastic materials makes these LSR grades ideal for two-component injection molding. Functional parts that have been directly injection-molded and firmly bonded can now also be mass-produced inexpensively, quickly and reliably for medical technology.

Tests conducted with the medical-device manufacturer and Trelleborg's elastomer laboratory in Stuttgart demonstrated, among other things, that SILPURAN® 6700 can withstand long-term storage with the medication. Since the drugs come into direct contact with the seals, interactions of any kind had to be ruled out. When the pump's functionality was put to the test, however, it turned out that the friction between the plunger and the cylinder surfaces made of SILPURAN® 6700 was too high. Even the slightest over- or under-dosage of medication can lead to life-threatening situations for the patient; it is therefore essential for the pump to operate smoothly. If friction between the plunger and cylinder were high, more force would have been required for the pumping action, which in turn would have necessitated a different drive and thus a larger device overall. Alternatively, the customer could have used lubricants. Those, however, would inevitably come into contact with the drug being delivered and possibly impair or, in the worst case, contaminate it. For the same reason, the use of oil-bleeding silicones such as those offered by WACKER for automotive applications was ruled out. While these automotive grades do have very low friction values, they cannot be used for medical applications. It is imperative to prevent oil from mixing with the drug and inadvertently being injected into the patient. WACKER's materials specialists found a solution that works without oil.

"In view of our strong, longstanding partnership with WACKER's materials developers, we presented them with this challenge," Schädler says. They very quickly came up with some initial ideas for an innovation that might work. A wholly new materials technology was developed and ready for marketing within just one year.

Opposing Properties

"We already had liquid silicone rubbers with self-adhesive properties in our portfolio, as well as products with low coefficients of friction, but none for sensitive applications that offer both together," Liesener recalls. "The micropump was thus the perfect opportunity for us to combine both properties in one silicone." The resulting LSR would have to have properties that appear physically incompatible: high adhesion and low sliding friction – in other words, holding on and letting go at the same time. Impossible, one might think, "and yet WACKER demonstrably solved this chemical conundrum, without any problems," Schädler says with admiration.

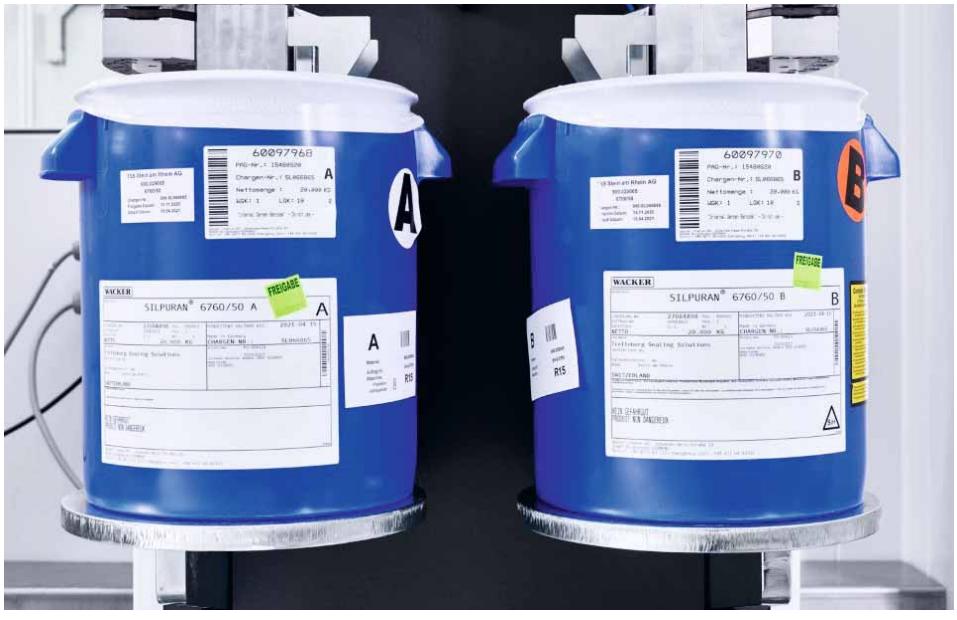
The materials specialists want to reveal only this much about the technology: an additional formulation component modifies the self-adhesive silicone in such a way as to significantly reduce the friction with the surface of the other material. This creates a permanently friction-modified surface even without the addition of exuding oil. "That is the key requirement for this application," Liesener says.

The material developed made its public debut under the name SILPURAN® 6760/50 in 2016. To this day, it is the only market-ready, self-adhesive, friction-modified liquid silicone rubber with biocompatibility certificates.

"The micropump was a good opportunity to combine different material properties."

Dr. Florian Liesener,
Technical Marketing, WACKER

Complementing their successful collaboration in developing the material, Liesener, himself a silicones expert, found that the Trelleborg specialists possessed extensive know-how and experience in the production process. The fixed pump cylinder consists of a glass-fiber-reinforced engineering plastic. It is initially manufactured in an injection mold. In a second step, the inner wall of the cylinder is then lined with an extremely thin layer of SILPURAN® 6760/50. "We had to adhere to manufacturing tolerances of two hundredths of a millimeter," Schädler remembers, "with the materials themselves already shrinking by as much as 35 percent." To solve this and other critical production problems, Trelleborg worked with its customer to improve the part's design in a way that would make it technically feasible. "That compelled us to refine our manufacturing technology," Schädler says. The injection pump is manufactured in a cleanroom and is currently one of the smallest two-component parts that Trelleborg manufactures on site. The experts involved agree that, given the current state of the art in manufacturing, it could not be made any smaller. SILPURAN® 6760/50 plays an important, and reliable, dual function in the compact drug-delivery device. It may be invisible to its users, but it gives them completely new freedoms.



Hygiene and Cleanliness

Protective, Safe and Clean

Improving living standards in emerging economies had spurred growth in the global cosmetics and personal-care market for years. Then, in 2020, a new, powerful growth driver appeared on the global stage: consumers' need to protect themselves and their families from an invisible danger – the novel coronavirus (SARS-CoV-2). Not only have sales of disinfectants skyrocketed – demand for cleaning wipes and protective clothing is also on the rise. Not to mention toilet paper.

A
I
The fabric used for medical protective suits is subject to stringent requirements. WACKER binders help meet them.

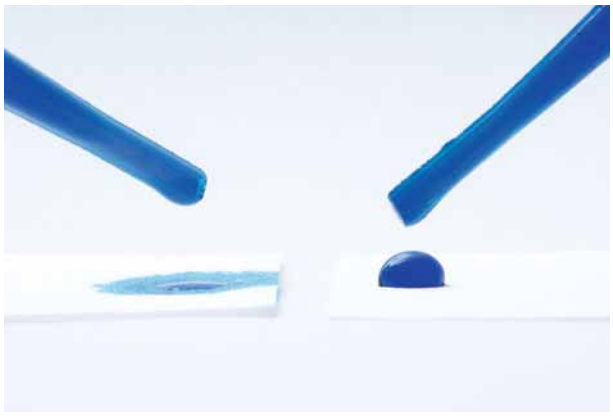
The sales figures on Russell Thorpe's laptop are a good measure of how our lives have been turned inside out by the coronavirus pandemic. According to Thorpe, marketing manager for the Nonwovens and Technical Textile markets in WACKER's POLYMERS division, the pandemic has impacted certain end-use product segments more than others. Demand for products used in the restaurant industry, such as paper napkins and paper tablecloths, was negatively impacted, while global demand for paper towels, wet wipes and moist toilet tissues was higher than normal. "Cleanliness has become the issue of the day," he says.

Dispersions Combine Fibers into Nonwovens

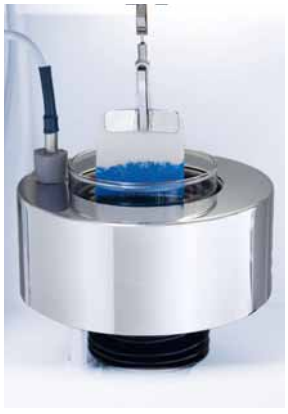
The trend is front and center in supermarkets and drug stores – browse the shelves on any aisle and you'll find the new buzzwords: protective, safe, clean. Emblazoned in all caps on shampoos, boxes of laundry detergent and even socks: hygienic.

It's a trend that benefits WACKER's polymer business. VINNAPAS® binders generate a bond between short fibers of wood pulp or viscose to create huge rolls of nonwoven fabric. These are then made into an extraordinarily wide

B —



C —



B/C
I
VINNAPAS® dispersions ensure controlled absorbency.

D
I
The nonwoven fabric retains its tear resistance even when wet.

— D

range of products, from absorbent hygiene products to moist toilet tissues. As Thorpe notes, “In 2020, some of our customers who produce wet wipes and industrial cleaning cloths experienced such a sharp increase in demand that they were running at capacity just to keep pace with what the market needs.”

Dry wipes are normally used in workshops, stores and filling stations. In the coronavirus era, however, they can be combined with a disinfectant spray to provide clean, virus-free surfaces. They can replace less hygienic fabric hand towels when you dry your hands.

Absorbent, Tear-Resistant, Yet Flexible

Production of disposable medical gowns and the demand for polymer binders for this application have soared as well. “Manufacturers who would normally sell their nonwoven fabrics for agricultural or automotive applications have adapted their production within a matter of days,” recalls Zoltan Sattler, who manages sales of binders for consumer products and industrial applications in Western Europe for WACKER. WACKER’s VINNAPAS® binders contribute to good fluid absorption and combine strong binding power with good flexibility. They make protective clothing pleasantly soft yet tear-resistant, and thus more comfortable to wear for paramedics, hospital personnel and caregivers for the elderly. “By using renewable raw materials, we can further support our customers in their sustainability initiatives. Under the VINNECO® trade name, our binders are available in identical format. A biomass balance approach is used to illustrate the contribution to the overall reduction in carbon dioxide emissions,” Sattler explains.

Cyclodextrins Afford Additional Protection

What’s more, cyclodextrins from WACKER are destined to make surfaces and protective clothing even safer. According to early scientific studies, these ring-shaped sugar molecules made from corn starch perfectly capture the fatty lipids on the surface of viruses, disrupting functioning of the viral membrane and inactivating the virus. “The goal is to destroy viruses,” says Dr. Mark Harrison, who is responsible for industrial applications of cyclodextrins at WACKER. Unlike highly concentrated alcohol or bleach, research has shown that cyclodextrins do not irritate the skin or mucous membranes. After all, these utterly harmless jacks-of-all-trades have been used in foods and cosmetics for years.

Wound Dressings

Optimum Wound Care

Injuries and wounds are a part of life. But taking care of them appropriately is not always simple. That is where wound dressings coated with silicones can offer valuable help. They are breathable, adhere gently to the skin and prevent the wound from drying out. The patient also experiences much less pain when dressings are changed. Silicones can provide optimal conditions for wound healing and help accelerate recovery.

Life expectancy is rising worldwide, which should be good news for everyone everywhere. This demographic change, however, also presents immense challenges to society. “As more people reach advanced age, the population suffering from large or chronic wounds also rises,” says Dr. Manuela Beckmann, who was responsible for global marketing of wound-care silicones at WACKER until the end of last year.

The human skin loses its resilience as we get older. It becomes more sensitive, thinner and more prone to injuries. There is also less blood circulation, and skin cells don’t divide as rapidly as in youth. The result: wounds take longer to heal, and they don’t heal as well anymore. That makes proper care all the more important.

Wound Care with Less Pain

Silicone-coated wound dressings and bandages have enabled new options in wound care. WACKER has produced medical-grade silicones for a broad range of customers for some 25 years and is Europe’s leading manufacturer in the field.

Professional wound care without silicones is now virtually inconceivable, for several reasons. Silicone adhesives are applied directly to the wound. Being hydrophobic, i.e. water-repellent, they will adhere to dry skin only – not to moist skin. Wounds are generally moist, so silicone dressings won’t stick to them or to their edges. The dressings also cannot knit with newly formed tissue. The breathable

I
B

A
I
Attaching a release film to a silicone-coated backing material. As is the case with wound dressings, the film must be easy to detach and must not leave any residue when peeled off.

B
I
Dr. Thomas Gröer is a technical service manager based in Burghausen who develops silicone adhesives for wound and stoma care.

silicone layer offers protection from external influences such as bacteria and moisture. Because it enables permeation of water vapor, fluids and air, the protective layer provides an ideal environment for wounds to heal. It also prevents exudates coming into contact with and softening healthy skin.

But silicone-coated dressings offer even more advantages: they adhere less strongly, which makes them more pleasant to remove. Removal causes hardly any pain or wound trauma – a huge relief for patients with large or chronic wounds. In addition, silicone bandages are soft and flexible, making them more comfortable to wear than conventional adhesive bandages.

“Customers increasingly opt for the adhesive with higher added value. That means our silicones, without question.”

Egbert Klaassen,
Wound Care Segment Manager

Yet another distinguishing feature of silicone is that, if a dressing with a silicone layer is applied incorrectly, it can be easily removed and repositioned without impairing adhesion in any way. That is a major advantage compared with conventional dressings, which can strip skin cells as the dressing is being removed and then will not adhere properly when reapplied.

WACKER has worked hard on developing silicones with these outstanding properties for use in medical wound care. That meant making hydrophobic silicones usable for this application. “The silicone dressing must absorb moisture and then be able to wick, i.e. draw off, that moisture to the outside,” explains Dr. Thomas Gröer, who is in charge of application technology for these innovative silicone adhesives at WACKER’s Burghausen site.

Silicones – the Product of Choice for Professional Wound Care

High-tech wound dressings usually comprise several layers, and each one performs an important function. Facing the skin, the silicone adhesive layer is placed directly on the wound. It is secured to a polyurethane carrier film and perforated, which makes sure that wound fluid and blood are able to permeate to the absorbing layer. The film is followed by a thin acrylate layer and a layer that absorbs the exudate from the wound. Some dressings also feature an extra polyurethane foam layer for stabilization.

“Such silicone bandages are essential for treating chronic wounds,” says Sascha Casu, who heads the Hamburg-based Acute Wound Care division of Swedish bandage manufacturer Essity. Specializing in medical products for wound care, compression therapy and orthopedics, Essity sells both conventional bandages and plasters with acrylate-based adhesives and high-tech products featuring silicones. “There is a case to be made for both technologies,” says Casu, who has worked closely with WACKER for years. “Silicones are much kinder to the skin and have better adhesive and release properties. Acrylates, on the other hand, are comparatively inexpensive and adhere more securely on the first application.”

C

I
D

C
I
More and more often, the large plasters needed to treat chronic wounds are being coated with silicone. As the coating is breathable, it enhances the healing process.

D
I
Silicone adhesives are skin compatible and do not stick to wounds. This makes them ideal for sensitive skin.

Silicones with Increased Adhesive Strength

Silicone-coated wound dressings are the preferred choice for professional treatment of severe or weeping wounds, especially in hospital settings, Casu notes. But they are also being used increasingly for the treatment of chronic wounds and on persons with skin conditions and sensitive skin. “The demand for professional wound-care material for home use is rising, and pharmacies are selling more and more of it,” Manuela Beckmann says.

For a very long time, silicone dressings were used mainly in hospitals to treat chronic wounds. Now, silicone adhesives for acute wound therapy are making inroads into the retail market. “We’ve successfully developed silicone adhesives that stick reliably even when less silicone is used,” Thomas Gröer says.

WACKER conducted many trials to achieve the same adhesive strength with less material. The breakthrough wasn’t long in coming. “We were able to adapt the silicone adhesives to make them adhere much more strongly. With that improvement, a thinner silicone layer is quite sufficient,” Gröer concludes. This opens up completely new possibilities for manufacturers of wound dressings. “Customers increasingly opt for the adhesive with higher added value. That means our silicones, without question,” emphasizes Egbert Klaassen, who succeeded Beckmann as WACKER’s new wound care segment manager this year.

Opportunities in Stoma Care

WACKER has established a foothold in another medical field as well: the treatment of people with colostomies, ileostomies and urostomies. To enable mobility and free movement, patients wear a bag that is attached directly to the body and encloses the stoma. That puts the skin under constant stress.

Gentle care of these skin areas is key to the patients’ well-being. The most innovative development in this field comes from Trio Healthcare. This British company is the first manufacturer to market a complete line of stoma care products with patented, custom-formulated silicone

“Such silicone bandages are essential for treating chronic wounds.”

Sascha Casu,
Director of Acute Wound Care, Essity

adhesives. WACKER supplies the base silicone material used. “Developing the requisite adhesives was a challenge,” as Thomas Gröer explains. “No fluids must leak. All moisture must be absorbed in order to prevent skin irritation.”

To achieve this, Trio Healthcare developed the first breathable silicone ostomy base plate. It is affixed to the skin and secures the ostomy bag to the body. However, the skin under this plate, which is 12–15 centimeters in diameter, will quickly begin to sweat. The adhesive on the plate must be able to absorb the sweat rapidly, without impairing adhesive strength. “Our new silicone adhesives can do this, making them suitable for stoma care,” says Gröer.

Stoma Care Reimagined

This improves the quality of life of stoma patients immensely. For Lloyd Pearce, CEO of Trio Healthcare, finding new solutions for stoma care was a personal mission, with a member of his own family affected. “One-half of all stoma patients suffer from skin conditions and irritated skin. I wanted to do something about that.”

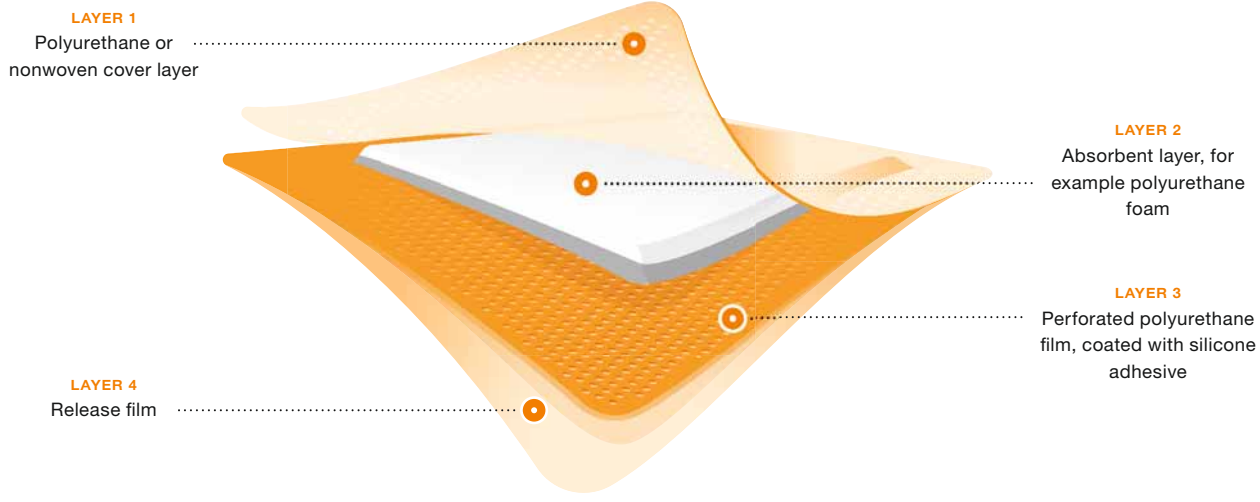
That is why he founded Trio Healthcare in 2006. He and his colleagues have since pulled out all the stops to replace the hydrocolloid technology so widespread in stoma care. Hydrocolloids do adhere well, and they also absorb moisture well. But they are not breathable. The result: the skin slowly softens, leaving it prone to injury and damage from body wastes. That can’t happen with the company’s new products using WACKER’s medical silicone adhesives. They are moisture-permeable and allow the skin to breathe, preventing skin irritations and wounds from occurring in the first place. The base plates adhere safely and tightly to the skin without irritating it.

Huge Development Potential

Trio Healthcare’s products are now available in 22 countries. Pearce sees lots of additional potential. “We won’t stop researching and trying out new things. No ostomate, i.e. stoma patient, should be left having to deal with severe skin irritation.”

The use of skin-friendly silicone adhesives in medical applications is by no means exhausted. “There are still lots of opportunities,” says Thomas Gröer. Silicones are suitable for anything humans attach to their bodies: insulin pumps, EEG sensors, position sensors for dementia patients – even wearables are now affixed using silicone, he says. “So, there is still plenty for us to do.”

Gentle Support – The Structure of a Wound Dressing



Prosthetics

Like a Second Skin

In order to stay mobile, many people are dependent upon orthopedic aids or prostheses. High-performance materials like silicone are what make a perfect fit possible for prostheses, shoe orthotics and bandages, allowing affected individuals to live as normally as possible.

Mobility means life. But many people fail to realize that until movement becomes difficult for them or causes pain. The problems start with what seem like "trivial complaints," such as tennis elbow or aching feet. In the worst-case scenario, the loss of a body part can mean severe limitations on an individual's mobility.

There are many different reasons why a person would need an arm or leg prosthesis or an artificial ear. Thanks to modern medicine, however, we can now offset many of these losses, both visually and functionally. Artificial body parts can never replace the real thing. But they can help affected individuals navigate their day-to-day routines and improve their quality of life. Ideally, wearers will not feel their prostheses and those around them will not even notice the difference.

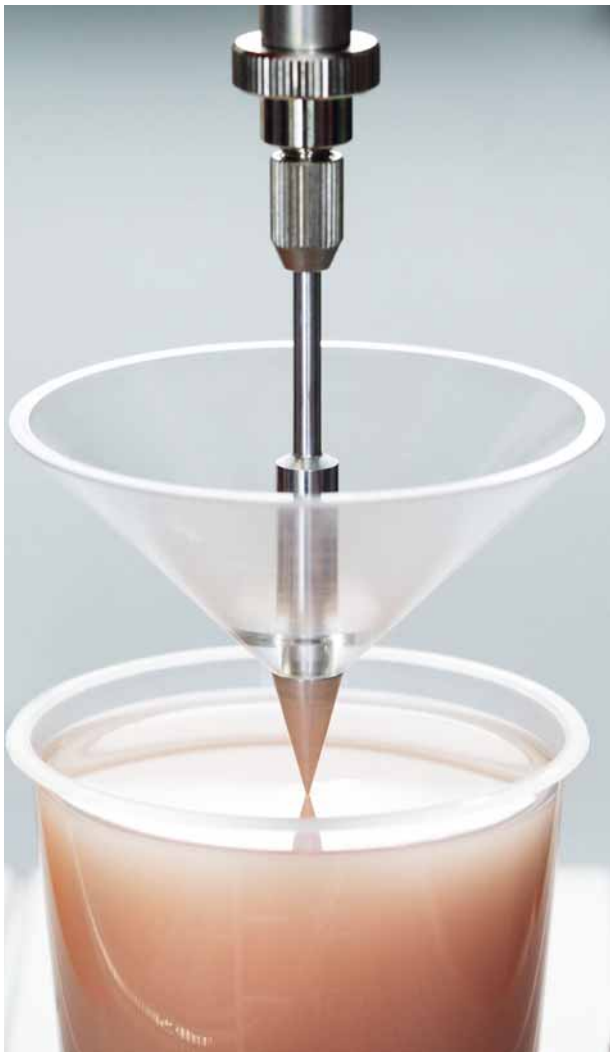
The Closest Possible Resemblance to Human Tissue

In order to maximize the benefit to wearers, today's prosthesis makers work with the best materials – and that includes silicones. No matter how flexible, firm or robust the material needs to be, manufacturers can turn to WACKER's comprehensive portfolio of silicones to fine-tune the desired application and properties of the prosthesis. Uses range from cosmetic replacements to hand and partial-foot prostheses. "The replacement should resemble human tissue as much as possible to make it a perfect match for the body – and the wearer should barely feel it at all," explains Dr. Manuela Beckmann, who worked as WACKER's global prosthetics coordinator up until last year.

This also applies to cosmetic reconstructions such as breast implants, which need to imitate the way a natural breast feels and moves. These are made by filling a polyurethane envelope with silicone gel, which is then placed in a negative mold, where it cures to the proper shape and size. "To keep the implant from being too heavy, we blend the silicone gels with lightweight fillers like hollow polypropylene beads," explains Dr. Thomas Gröer, a technical service manager and silicone specialist at WACKER. Tricks like these allow engineers to create imitation breast material that feels more and more like human tissue.

A Material You Can Rely On

Silicones are extremely diverse. Depending on the formulation, they can be flexible or insulating, or they can relieve pressure or absorb vibrations. These properties are what make silicone rubber compounds the perfect starting materials for prosthetic liners, which can be pulled over a residual limb like a sock to limit contact pressure and friction. "Silicone liners are the perfect interface between the residual limb and the prosthesis. They absorb pressure and relieve the strain on the tissue," says Gröer.



I
A

— B

— C

A
I
Flexibility, softness and damping properties are essential for an artificial limb to be worn comfortably. Silicones are selectively adjusted to suit this application.

B
I
The color of the silicone rubber matches the patient's own skin. Before the silicone is processed further, it is rolled out to remove any bubbles.

C
I
Artificial legs and hands are still made manually. Silicones from WACKER ensure a perfect fit.

"Silicone liners are the perfect interface between the residual limb and the prosthesis. They absorb pressure and relieve the strain on the tissue."

Dr. Thomas Gröer,
Technical Service Manager for Prosthetics

Orthopedic products such as shoe inserts, orthotic devices and toe separators, too, benefit from the flexibility and mechanical properties of silicone. The silicone rubber compounds used most often in orthopedics are those that absorb shocks and vibrations well. Products like these are heat- and cold-resistant, do not age and can withstand any weather. Thanks to silicone, orthopedic aids and prostheses retain long-term functionality, providing patients with years of valuable service.

Fitness and Health

Clothing That Thinks for You

Ideally, whenever human meets wearable technology, there is always a piece of fabric in between. Smart textile fabrics are used in medicine and in sports. They can measure heartbeat with sensors, or send electrical impulses to help build muscle. To make the ideal connection, a textile pioneer from southwestern Germany uses high-tech silicones from WACKER in its intelligent fabrics. WACKER developed the first silicone products for the textiles and leather sectors 50 years ago.

A —

In more normal times, sports multinationals and textile companies the world over would make their way to Hans Bauer's showroom to develop new items of clothing with the textile specialist. Now he sits there all alone, surrounded by mannequins dressed in futuristic sports clothing, demonstrating his samples and prototypes in videoconferences. He says that it's business as usual. And his business – innovative clothing – is booming.

"We were the first to make the electronics and silicones part of the fabric."

Hans R. Bauer,
Founder and Managing Director of NTT

Bauer holds up a sports bra from a well-known sporting-goods manufacturer. "We were the first in the world to integrate a heartbeat monitor in 2004," he relates. For the interface between the electronics and the body, he used liquid silicones that conduct electricity. "We were the first to make the electronics and silicones part of the fabric," the inventor explains. Silicones protect the electrodes from abrasion and when the fabric is washed; they are also extremely elastic, skin-compatible and easy to process.

I
B

A/B
I
Training with electro-stimulation: electrodes integrated in a skintight body suit and coated with conductive silicone promote muscle growth.

C
I
Polyamide-reinforced silicone makes sports textiles more comfortable to wear. Silicone can be used to integrate sensors, too.

I
C

The industry was ecstatic. The word was out: smart fabrics would revolutionize the fitness market. But then, for a long time, nothing happened. Many sports manufacturers who jumped on the bandwagon ended up disappointed. Hans Bauer took it all in his stride. He had already learned that the initial hype elicited by an innovation was often followed by a phase of disillusionment. Now, he says, smart fabrics have reached a point where their advantages truly come to the fore.

Ideas for Occupational Safety

For several years now, the textile expert has been fielding inquiries mainly relating to workplace safety – but he's also received some from the military. Custom undershirts for power electricians can detect when the worker falls and sound the alarm. In South America, sensors in the clothing worn by mineworkers can detect when blood-oxygen levels are too low. Soldiers wear integrated sensors that can detect and report critical injuries. These are just a few examples of clothing that can save lives. Bauer is convinced that "there will be many more meaningful applications in this area."

Exercise That Doesn't Stress Your Joints

Functioning business models have also emerged in the fitness sector. One of these is the booming electrical muscle stimulation (EMS) market. Athletes wear skintight body suits equipped with electrodes that stimulate muscle growth. The suppliers of these suits promise effective muscle buildup in as little as 20 minutes of EMS training per week. Because it doesn't stress the joints, EMS is a good alternative to the bench press, especially for old, frail and overweight persons. Hans Bauer is currently working with several manufacturers on novel EMS suits in which the electrodes are coated entirely with WACKER's specialty conductive silicones. Perspiration under the silicone rubber connects electrodes to the skin so well that they no longer need to be moistened beforehand – something wearers appreciate a lot.

Helping Senior Citizens to Live Independently at Home

Analysts believe that the elderly and the infirm will become a major market for smart fabrics. For example, wearing clothing that can monitor vital functions can help senior citizens live independently in their own homes for longer. Electrode suits can enable people suffering from spastic paralysis to walk again unaided. With his company, Hans Bauer is participating in these developments, and here, too, he relies on products and support from Burghausen: "WACKER is just exceptionally innovative in this field, with a giant range of silicones to choose from – and working with the technical service managers in the lab is simply a pleasure."

Nutrition

Help for a Healthy Heart

It beats tirelessly – some 100,000 times a day: the heart, our body's engine and most important organ. It pumps our blood, delivering nutrients and vital oxygen throughout the body. If it fails in its job, the likely culprit is cardiovascular disease, our perennial number-one cause of death. Each year, cardiovascular disease claims the lives of nearly 18 million people throughout the world. One particularly challenging aspect of this condition is that many people go a long time with little awareness that their cardiovascular health is at risk – these illnesses creep up on us with virtually no warning.

A
I
Tumeric contains curcumin, a natural antioxidant.

B
I
Up to now, hydroxytyrosol has been extracted from olives.

Reining in Cholesterol – and Protecting the Heart

If we have a toothache or tense muscles, we immediately notice that something is amiss and usually know what to do about it. Problems with the heart and circulatory system, on the other hand, are difficult to self-diagnose. Health screenings generally reveal whether everything is – or isn't – as it should be, and preventive measures play a huge role in keeping the heart and circulatory system healthy: giving up smoking, drinking less alcohol and exercising are good for us and for our hearts. More and more people are also recognizing that a healthy diet likewise plays an important role in keeping us healthy. This includes eating foods that are low in fat in order to keep cholesterol values within the normal range. Elevated LDL cholesterol values, in particular, are associated with an increased risk of coronary heart disease and arteriosclerosis. LDL stands for low-density lipoprotein, a fat-protein compound. Nutritional supplements and functional ingredients can have a positive impact on the concentration of LDL cholesterol – also commonly referred to as "bad" cholesterol – in our blood. In one survey, consumers aged 55 and older indicated that heart health was one of their most important reasons for buying functional foods.

The Super Molecule from Olives

WACKER is responding to that trend with two products – one of which is HTEssence® hydroxytyrosol, a secondary metabolite found in olives and olive leaves. Not only is the substance an effective antioxidant, it is also believed to lower blood pressure and reduce inflammation. Two studies have confirmed that the WACKER ingredient can decrease "bad" LDL cholesterol levels in the blood by as much as 8 percent, which, in turn, lowers the risk of cardiovascular disease. The US National Cholesterol Education Program (NCEP) estimates that the risk of cardiovascular disease decreases by as much as 2 percent for every 1 percent drop in LDL cholesterol levels. It follows that HTEssence® can reduce the risk of heart disease by as much as 16 percent.

In order to obtain hydroxytyrosol directly from olives, however, the substance must first be extracted through a complex, expensive process. Another disadvantage is that the concentration of the desired natural compound in the resulting extract is very low. WACKER has been able to improve on that considerably: the company has developed a patented proprietary process for manufacturing exceptionally pure, nature-identical hydroxytyrosol – with no undesirable byproducts, of consistently high quality and with a defined concentration of active ingredient. The process yields either a liquid or an odorless, water-soluble powder, making the resulting hydroxytyrosol suitable for use in functional foods and nutritional supplements.

A Vital Material for the Body's Engine

It should go without saying that we all need to keep our heart healthy; after all, it is on the job 24/7 for our entire lives. The most important muscle in the body consumes a great deal of energy, which is provided by the mitochondria – the microscopic power plants in every cell. The coenzyme Q10 molecule, or CoQ10 for short, is one of the substances that play a key role in energy metabolism, which is why it is often compared to a spark plug: it delivers the spark needed for cellular energy production and is what allows the cell's power plant to do its work in the first place. Coenzyme Q10 is similar to a vitamin, and the body can generate it to a certain degree on its own. But production in the body declines as we age. Additional factors with adverse effects on CoQ10 levels are chronic disease and the use of certain medications. Statins in particular, which are regularly prescribed to combat high cholesterol, have a negative impact on coenzyme Q10 biosynthesis in the body. Research has also shown that CoQ10 values are lower in patients with heart failure. Nutritional supplements are playing an increasingly important role in compensating for this deficit and for making a supply of this important molecule available for the heart muscle and for energy metabolism in older individuals.

Making Beneficial Actives Accessible

Adding coenzyme Q10 to our diet is no easy task, because the substance is fat-soluble, whereas the environment in the intestinal tract is aqueous. As a result, individual CoQ10 molecules combine to form larger structures that are very difficult for our cells to absorb. The experts at WACKER were therefore keen on increasing bioavailability. Their strategy was to formulate a new product – CAVAQ10® – by combining coenzyme Q10 with cyclodextrins, ring-shaped carbohydrates that WACKER bioengineers produce through the enzymatic degradation of starch. Their three-dimensional structure allows them to draw a lipophilic, i.e. fat-soluble,

molecule into their inner cavity, provided that this molecule has the right size and shape – and CoQ10 does. The cyclodextrin shell, by contrast, is hydrophilic, i.e. drawn to water. These rings of sugar thus encapsulate individual CoQ10 molecules, making them more readily soluble. At the same time, they also separate molecules from each other to create a molecular dispersion. In other words, cyclodextrins prevent agglomeration while ensuring that a relatively large number of molecules are available for the body's cells. This makes CoQ10 more likely to enter cells, thereby increasing bioavailability. In the case of CAVAQ10®, bioavailability grows by a factor of 18 relative to traditional products.

That cyclodextrins open the doors of our cells to health-promoting molecules is evidenced by a second example: curcumin. The biologically active component of turmeric is a true jack-of-all-trades when it comes to the range of its therapeutic and prophylactic powers. While the antioxidant has been shown to possess anti-inflammatory, antibacterial and other health-promoting properties, it does not dissolve readily in water, resulting in very poor bioavailability. The body actually eliminates up to 90 percent of curcumin taken orally. Much as they do with coenzyme Q10, cyclodextrins from WACKER also help ensure that the beneficial properties of curcumin can take effect in the body. When the active compound in turmeric forms complexes with the sugar rings, its bioavailability increases immensely. This was demonstrated in a clinical study in which CAVACURMIN®, a product formulated by combining curcumin with cyclodextrin, was found to yield a 40-fold improvement in absorption.

A Muscle Reviver

Dr. Wolz, a traditional German manufacturer of nutritional supplements, has been selling the curcumin-cyclodextrin complex for several years now – and it has become one of the company's most successful products. A wide array of preventive benefits is attributed to plant compounds, especially to secondary metabolites like curcumin, with anti-inflammatory and antioxidant properties playing a prominent role in many applications. In exercise-related muscle injuries, for example, curcumin has been found to reduce inflammatory markers and to delay the resulting soreness. The affected muscles regenerate more effectively as well. What's more, the active agent in turmeric helps control an insidious phenomenon known as silent inflammation, in which inflammation goes undetected in the body. As with hypertension or high cholesterol, by the time we even notice gradual disorders like this, it is usually too late. That makes preventive measures all the more important for keeping our heart and muscles healthy.

CAVACURMIN® in capsule form

The Benefits of Roughage

What your body needs is sometimes hard for it to digest. Indeed, because our body cannot digest roughage – also known as dietary fiber – it simply eliminates it with our stool. Yet fiber is anything but unnecessary: a diet rich in roughage can prevent metabolic disorders and diseases of both the gastrointestinal tract and the cardiovascular system. Insoluble fiber, for example, binds large amounts of water and acts as a swelling agent, stimulating bowel movements and preventing constipation. Soluble fiber, which also includes CAVAMAX® W6 alpha-dextrin from WACKER, plays a role in metabolism. In one clinical study, this type of cyclodextrin was shown to have a positive effect on what is known as the glycemic index (GI), reducing the GI of white bread by 50 percent. Why is that good? The body needs more time to digest food with a low glycemic index – and that results in more stable blood sugar levels. The European Commission has certified that alpha-cyclodextrins have a proven health benefit (health claim). In other words, CAVAMAX® W6 alpha-dextrin can support a healthy lifestyle by serving as an additional source of fiber.

For Our Shareholders

31 — 48

WACKER is a contract manufacturer for pharmaceutical companies, producing vaccines that help the body combat pathogens.

a

For Our Shareholders

2020 was an extraordinary year. The coronavirus pandemic caught the economy unawares and with considerable force. Public life ground to a halt in many countries around the world and, today, the pandemic still poses enormous economic, political and social challenges for us all. To overcome this exceptional situation, we focused – and continue to focus – on three priorities:

- Protecting the health of our employees
- Keeping production running and supplying our customers
- Safeguarding the company's long-term future

A year has passed since the initial shock wave and, today, we can see that we have steered WACKER soundly amid the pandemic turmoil. Our ability to keep the company operating without interruptions under these critical conditions is due to the efforts of our employees. They delivered a strong performance. On behalf of the entire Executive Board, I would like to thank each of them for their exceptional commitment and flexibility, and for their self-discipline and sense of responsibility in dealing with coronavirus.

When the world comes to a virtual standstill, WACKER cannot expect to emerge unscathed. Our sales of €4.69 billion were 4.8 percent lower than the year before. The sales downturn was strongest in Q2 2020. In the second half of the year, we made up for most of that decline thanks to growing demand for our products. At €666.3 million, EBITDA (earnings before interest, taxes, depreciation and amortization) fell 14.9 percent year over year. However, in 2019, our EBITDA had included special income of €112.5 million in insurance compensation. Adjusted for that income, EBITDA declined by a slight 0.7 percent year over year despite coronavirus. A very positive fact is that WACKER has returned to profit, posting net income of €202.3 million, after a loss in 2019.

Various other key financial indicators also show how well we weathered the adversities of 2020. WACKER has always paid particular attention to having stable finances. They are the basis for investments and profitable growth – the foundation on which the company's future is built. In the reporting year, we aligned our investment budget with the financially challenging situation, paring back our capital expenditures to roughly €225 million, though not at the expense of future opportunities. In addition, we systematically reduced our inventories, which lowered current assets significantly. Both actions bolstered our net cash flow, which almost quadrupled to roughly €700 million. High cash inflows from operating activities coupled with sufficient liquidity were the key factors in bringing our net financial debt down to only about €68 million.

The company's financial stability is the basis of our dividend policy, which is to distribute some 50 percent of our net income to you, our shareholders. Consequently, at the Annual Shareholders' Meeting in May 2021, the Supervisory Board and Executive Board will propose a dividend payment of €2.00 per share. This corresponds to more than half of our net income for 2020.

WACKER's chemical business is our sales and earnings engine. That remains true even though WACKER did not post sales growth in 2020. Lower average prices for standard silicones and reduced volumes due to the pandemic slowed sales and earnings at WACKER SILICONES. WACKER POLYMERS raised its EBITDA amid robust demand from the construction industry and lower raw-material prices. At WACKER BIOSOLUTIONS, both sales and EBITDA grew.

After two difficult years, our polysilicon business stabilized in 2020, for several reasons.

First: average prices for solar-grade polysilicon stopped falling.

Second: we expanded our market share with semiconductor-sector customers.

Third: we significantly reduced our production costs.

As a result, EBITDA – measured on a comparable basis – improved by roughly €60 million and came in slightly positive.

Aside from the coronavirus pandemic, the second major topic at WACKER in 2020 was our Shape the Future program. Its objectives are clearly defined: leaner business processes and structures, stronger regional responsibility and markedly lower costs. We aim to save €250 million per year by the end of 2022. Non-personnel costs will account for about half of this amount and personnel costs for the other half. Worldwide, a total of around 1,200 jobs will go, some 1,000 of them in Germany. Following intensive negotiations with employee representatives, we signed an agreement to that end in late October 2020. This company agreement provides for a socially responsible reduction in the workforce by means of phased early retirement, voluntary severance packages and natural employee turnover. I am certain that this program will help us effectively counter the intense competition facing our business and the cost pressures.

The third major issue in 2020 was the sale of our Siltronic shares to Taiwan's GlobalWafers. After the successful IPO of Siltronic AG in 2015, the disposal of our remaining 30.8 percent stake in the company now marks the end of an association spanning more than 50 years. We are convinced that the planned merger of the two companies will secure them a strong top-three position in the silicon-wafer market.

Coronavirus has shown that our world has become even more unpredictable, even more volatile. That volatility will remain with us. Permanent change has become the new normal. WACKER is skilled at transformative change and proved this once again in 2020. Our courage to embrace change has made us stronger and is exactly what is needed in challenging times.

We have entered 2021 with optimism while taking all the precautions necessary against coronavirus. The new organizational structure for our business divisions and corporate departments has been in place since the start of the year.

Our acquisition of plasmid DNA manufacturer Genopis, Inc. gives us our own production site in the all-important US biologics market. It also complements the product portfolio of WACKER BIOSOLUTIONS in the field of microbial technologies. It is precisely in this area that biotech company CureVac relies on our expertise and has contracted us to produce part of its mRNA-based Covid-19 vaccine candidate once it receives regulatory approval.

We also got off to a dynamic start in the new year in operational terms. All our business divisions generated sales growth in the first few weeks. We expect full-year sales to grow by a mid-single-digit percentage. Headwinds will come especially from raw-material prices. They are rising markedly at the moment, which dampens EBITDA. Year over year, EBITDA should climb between 10 and 20 percent. If the economy gains further impetus during the year, there will be additional opportunities for us. After deliberately cutting back our capital expenditures in the previous year, we intend to invest more again this year. Our investment focus will be on our chemical divisions and on polysilicon for semiconductor applications.

One issue of particular concern is our pension obligations. Accounting for almost 40 percent of total equity and liabilities, they now amount to roughly €2.7 billion. You all know the reason: the European Central Bank's zero-interest policy. In the past two years alone, we had to additionally pay some €150 million into the WACKER pension fund. That is money we cannot use for capital-spending projects for our company's future growth. For this reason, we are currently working on a fundamental reform of our company pension system.

With our Shape the Future program, we have created the framework for WACKER's continued success. We have a clear strategy and know where we want to go. We strongly believe in sustainable solutions – for our products, in our production processes, and in the supply chain. We have the right products and we maintain close relations with our customers. Without chemicals, it will not be possible to solve the problems of our time – whether the coronavirus battle, climate change or the digital transformation. That is what drives us. That is what we work for every single day.

In closing, allow me to say a few words concerning myself. This time next year, my fellow board member Dr. Christian Hartel will be the one reporting to you on 2021 and explaining the company's prospects. For more than five years now, it has been my pleasure to work closely with Christian Hartel. I know that he will keep WACKER firmly on its successful course. At the end of the Annual Shareholders' Meeting on May 12, 2021, I will be retiring from the company after more than 38 years. It has been an honor for me to lead WACKER for 13 of those years. It has been both my duty and my passion.

Leading a company effectively can't be accomplished by one person alone. A CEO is only as good as his or her team – and the WACKER team is an outstanding one. I sincerely thank all our employees for their support. With their skills, dedication and achievements, they have been crucial to the company's success. For everything they have contributed, I owe them my utmost respect and recognition. My thanks also go to our customers and suppliers, for their trust in me during my time as president and CEO. I am also grateful to you, our shareholders, for the confidence you have placed in me. And last, but by no means least, my thanks to the Supervisory Board and the Wacker family shareholders. Your commitment to WACKER and your long-term thinking and actions for the company are truly unique.

There will be much to shape in the future – by my successor and by the entire team.

I am certain that WACKER will move forward on this path successfully.

Munich, March 2021

Dr. Rudolf Staudigl

President & 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

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

Dear Shareholders,

For WACKER, 2020 was a year of relentless effort. The coronavirus pandemic confronted the world with challenges that could not be solved with any Modern Age blueprint. In facing this critical situation, we focused chiefly on the company's financial stability. Three levers were especially important: strong cash flow, substantial cost cuts, and a reduced capital expenditure budget aligned with economic conditions. Another success factor was that we swiftly secured WACKER's long-term financing.

Our reporting-year results show that WACKER remained very stable through this difficult time. Net cash flow almost quadrupled to some €700 million and net financial debt was extremely low at about €70 million.

All parts of the company performed exceptionally well and were crucial in delivering our very good results. The Supervisory Board thanks every employee for this great achievement in such unusual times.

Another factor of huge importance for the company's future was an agreement we reached with employee representatives about the Shape the Future program. It enables WACKER to remain on par with its competitors internationally. I sincerely thank all of the company's employee representatives, who fully support this outcome.

Transferring our Siltronic stake to Taiwan-based GlobalWafers will enable us to realize the strategic goal of focusing our energy on our original core business – chemicals. GlobalWafers was able to secure a majority shareholding in Siltronic AG by early February 2021. Although the takeover has not been finalized yet, as various merger-control and foreign-trade clearances are still outstanding, we have passed a major hurdle. We are confident that the merger will go ahead as planned and that Siltronic and GlobalWafers will be able to chart their future path to success together.

WACKER's priority now is to make the right investments for the future. A good example of this is WACKER BIOSOLUTIONS. Its acquisition of plasmid DNA manufacturer Genopis, Inc. rounds out our product portfolio in the field of microbial technologies and gives us our own production site in America's large biologics market.

One issue that still needs to be resolved is WACKER's high pension obligations. To secure the company's future, it is vital to mitigate the burden of these obligations. The low-interest-rate environment for capital investments weighs heavily on WACKER's financial strength. Special pension-fund payments, which the company has made and will need to make, are amounts no longer at our disposal for growth investments. Over time, this will endanger the company's economic substance, as we cannot use this money for innovation and expanding our operations. That is why we must find ways to ease the burden on the company. We have no other alternative.

At the end of the Annual Shareholders' Meeting on May 12, 2021, there will be a change at the helm of the company. Dr. Rudolf Staudigl is retiring after 25 years on the Executive Board, 13 of them as president and CEO, and after a total of 38 years at the company.

The Supervisory Board thanks Dr. Rudolf Staudigl for his tireless commitment to WACKER's interests. He has helped shape the company like few before him. His successor is Dr. Christian Hartel, who has been with WACKER since 2003. We are thus filling the top executive position from among the company's own ranks. This underscores WACKER's ability to produce outstanding leaders who are capable of taking on such a role. Our decision ensures continuity in top management and realizes a generational change at the company's helm.

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 2020, 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 2020, 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.

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 effects of the coronavirus pandemic and the corresponding measures that had to be taken
- Further challenges affecting the global 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 appropriate courses of action
- The sale of WACKER's stake in Siltronic to Taiwan's GlobalWafers
- Various M&A projects
- The Shape the Future project
- The increase in pension provisions amid low discount rates, and the reorganization of the company pension systems
- Financing activities
- Personnel matters relating to the Executive Board (renewal of Dr. Ohler's contract for a further five years and personnel changes on the Executive Board in 2021)
- The new Executive Board compensation system
- The German Act implementing the Second Shareholder Rights Directive, and the revision of the German Corporate Governance Code

The Supervisory Board discussed the WACKER Group's plans for 2021 at its meeting of December 9, 2020. On that occasion, the Supervisory Board also dealt with medium-term corporate plans for 2021 – 2025. In addition, it discussed and approved the capital-expenditure budget for 2021.

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)). The tasks and the members of these committees are detailed in the Declaration on Corporate Management on page 189.

The Audit Committee met four times in the last fiscal year. Its work included the audit of the annual financial statements of Wacker Chemie AG and the Group for 2020 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, accounting processes, the internal control systems, 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 2020. It then awarded the auditing contract for 2020 and determined the focus of auditing.

The Executive Committee met twice in 2020. At each meeting the committee members discussed personnel matters relating to the Executive Board (e.g. determining overall compensation and the performance goals for variable compensation, the renewal of Dr. Ohler's contract for a further five years until December 31, 2025, the new Executive Board compensation system, and personnel changes on the Executive Board in 2021).

The Mediation Committee did not need to be convened in the reporting year.

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

Initial and Advanced Training

The members of the Supervisory Board are called upon to take part in training courses at regular intervals. The company supports the members in their educational endeavors, in particular by granting them generous expense allowances, which can and should be used for further training, among other things. When they take office, new Supervisory Board members receive an information package about their rights and obligations; it also includes information sheets on insider-trading bans and on personal transactions by managers. In addition, Supervisory Board members are regularly informed about court rulings and key changes in laws that have an impact on their work. Last year, for instance, they were given information on the German Act implementing the Second Shareholder Rights Directive, and on the revision of the German Corporate Governance Code.

Personalized Disclosure of Attendance at Meetings

In 2020, all members attended the meetings of the Supervisory Board, while all committee members attended their respective committee meetings. Members' attendance at meetings of the Supervisory Board and at their respective committee meetings is disclosed in personalized form below:

Full Supervisory Board	Attendance at meetings during period of office
Dr. Peter-Alexander Wacker	4/4
Manfred Köppl	4/4
Peter Áldozó	4/4
Dr. Andreas H. Biagosch	4/4
Dr. Gregor Biebl	4/4
Matthias Biebl	4/4
Markus Hautmann	0/0
Ingrid Heindl	4/4
Konrad Kammergruber*	3/3
Jörg Kammermann**	4/4
Eduard-Harald Klein	4/4
Franz-Josef Kortüm	4/4
Barbara Kraller	4/4
Beate Rohrig	4/4
Dr. Birgit Schwab***	1/1
Ann-Sophie Wacker	4/4
Dr. Susanne Weiss	4/4
Prof. Ernst-Ludwig Winnacker	4/4
Executive Committee	
Dr. Peter-Alexander Wacker	2/2
Manfred Köppl	2/2
Franz-Josef Kortüm	2/2
Audit Committee	
Dr. Peter-Alexander Wacker	4/4
Manfred Köppl	4/4
Franz-Josef Kortüm	4/4
Mediation Committee	
Dr. Peter-Alexander Wacker	0/0
Manfred Köppl	0/0
Franz-Josef Kortüm	0/0
Eduard-Harald Klein	0/0

* Until September 30, 2020
** Until December 31, 2020
*** Since October 1, 2020

Corporate Governance

Last year, the Supervisory Board again looked closely at corporate governance standards. At its meeting of December 9, 2020, 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). The Declaration is available to shareholders on the company's website and is also included in the Declaration on Corporate Management on page 189.

Further information on corporate governance at WACKER can likewise be found in the Declaration on Corporate Management on page 189.

At its meeting in December 2020, 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. Further information on the Supervisory Board's regular self-assessments can be found in the Declaration on Corporate Management on page 189.

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 2020, the consolidated financial statements and the combined management report (as of Dec. 31, 2020), as prepared by the Executive Board.

The Supervisory Board's Audit Committee had awarded the auditing contract in accordance with the resolution of the Annual Shareholders' Meeting of August 4, 2020. The auditors conducted their audit in accordance with Section 317 of the German Commercial Code (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). They issued unqualified audit reports.

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 23, 2021, 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 4, 2021, 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, 2020 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

Konrad Kammergruber, who served as an employee representative on the Supervisory Board for many years, stepped down from the Board after reaching retirement age at the end of September 2020. The Supervisory Board would like to thank Mr. Kammergruber for all his valuable, enriching and collegial work over the years, and wishes him all the best for the future.

Dr. Birgit Schwab, who had already been elected as an alternate member, replaced him as an employee representative on the Supervisory Board.

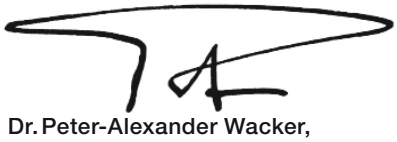
Employee representative Jörg Kammermann stepped down from the Supervisory Board with effect from December 31, 2020. We wish to thank Mr. Kammermann for his constructive and valued participation in the Supervisory Board.

At the Executive Board's request, Markus Hautmann was appointed to replace Mr. Kammermann by order of the District Court of Munich with effect from January 1, 2021.

Changes are expected in the composition of the Executive Board as well in 2021. At its meeting of December 9, 2020, the Supervisory Board took key personnel decisions with a view to ensuring long-term continuity in the company's management. Dr. Rudolf Staudigl, President & CEO of the Executive Board of Wacker Chemie AG, will retire at the end of the next Annual Shareholders' Meeting, scheduled for May 12, 2021. The Supervisory Board appointed Dr. Christian Hartel, an Executive Board member since 2015, to succeed Dr. Staudigl as of the same date. Also with effect from the end of the Annual Shareholders' Meeting of 2021, Angela Wörl will be appointed to Wacker Chemie AG's Executive Board in the position of Personnel Director. Ms. Wörl is currently head of WACKER's Human Resources corporate department. Her Executive Board contract is set to run for three years.

The Supervisory Board thanks the Executive Board and the company's employees and employee representatives for their dedicated work in 2020 – a year that, in every way, was challenging for all of us.

Munich, March 4, 2021
The Supervisory Board



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

WACKER Stock in 2020

After getting off to a good start in 2020, stock markets around the world suffered massive declines due to the coronavirus pandemic. In just a few weeks, trillions of dollars in market capitalization were wiped out. Share prices recovered again early in the second quarter, supported by government aid packages and major central banks' emergency measures. As the pandemic-induced restrictions gradually eased, the economy picked up again at the start of the third quarter. That had a positive impact on share prices worldwide. Additionally, WACKER stock benefited from improvements in the demand and earnings situation for solar-grade polysilicon and from a pick-up in demand at our chemical divisions, especially in the construction industry.

While Germany's DAX and MDAX indices gained 4 and 9 percent respectively in 2020, WACKER's share price grew 73 percent over the same period.

As the year started, WACKER stock stood at €67.64 (year-end closing price on Dec. 30, 2019). Its reporting-period low of €33.03 was on March 19 when WACKER presented its final 2019 figures and issued guidance for 2020, detailing the company's operating risks for the rest of the year. After a marked sales decline in April through June, sales started picking up again early in the third quarter, a trend reflected in the stock price.

On September 3, 2020, Deutsche Börse announced in its quarterly review of the composition of the DAX, MDAX, SDAX and TECDAX indices that WACKER stock would exit the SDAX and return to the MDAX effective September 21, 2020.

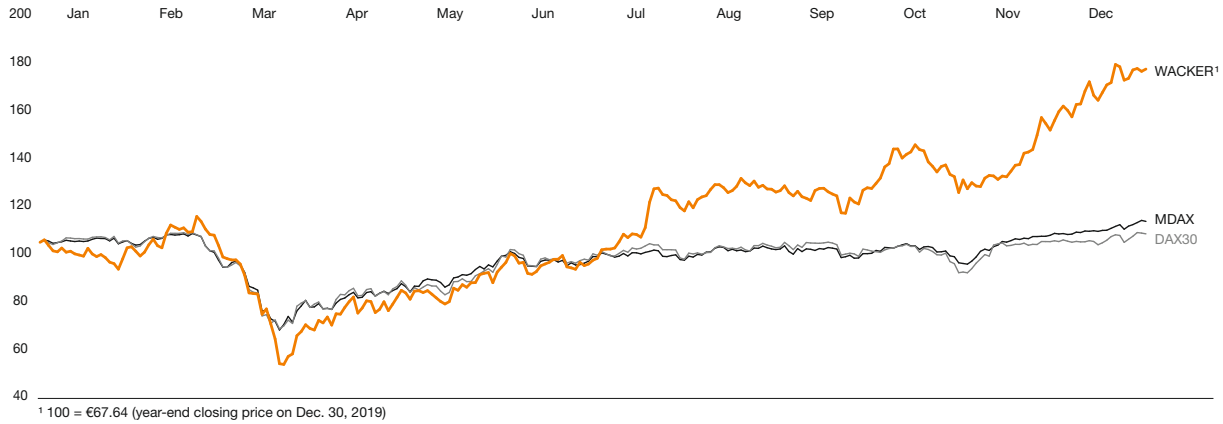
WACKER stock continued recovering through to the end of the year, responding with price gains to a variety of positive news items from the business divisions, such as the production of Covid-19 vaccines for CureVac, a biopharmaceutical company. Capital markets also reacted positively to WACKER's strategic decision to divest its remaining stake in Siltronic AG. WACKER stock reached its year-high of €118.05 on December 17, 2020. It closed 2020 at €116.75 on December 30.

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

€	
Year-high (on Dec. 17, 2020)	118.05
Year-low (on March 19, 2020)	33.03
Year-end closing price (on Dec. 30, 2019)	67.64
Year-end closing price (on Dec. 30, 2020)	116.75
Performance for the year (without dividend) (%)	72.6
Year-end market capitalization (shares outstanding; prior year: 3.36) (billion)	5.80
Average daily trading volume[1] (prior year: 16.6) (million)	22.0
Earnings per share from continuing operations (prior year: –12.94)	3.81
Dividend per share (proposal)	2.00
Dividend yield[2] (%)	2.9

[1] Trading platforms (Xetra, Germany's regional exchanges, Tradegate and Quotrix)
[2] Dividend proposal based on an average weighted share price of €69.58 in 2020

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



[1] 100 = €67.64 (year-end closing price on Dec. 30, 2019)

Dividend Payment of €0.50 per Share

At the Annual Shareholders' Meeting of Wacker Chemie AG on August 4, 2020, which was conducted online due to the pandemic, all Executive Board and Supervisory Board proposals were adopted by large majorities. The dividend per dividend-bearing share was €0.50 (2018: €2.50). The dividend yield based on WACKER's average share price in 2019 was 0.7 percent (2018: 2.1 percent).

A.3 Dividend Trends

€	2019	2018	2017
Dividend	0.50	2.50	2.50
Special bonus from the sale of Siltronic shares	—	—	2.00
Total dividend	0.50	2.50	4.50
Dividend yield (%)	0.7	2.1	4.0
Net result for the year (allocable to WACKER's shareholders) (million)	–642.6	246.1	866.7
Net result for the year from continuing operations (allocable to WACKER's shareholders) (million)	–642.6	246.1	240.5
Dividend payout (million)	24.8	124.2	223.6
Distribution ratio (%)[1]	n.a.	50.5	51.6

[1] Excluding special bonus; in relation to net income 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 (2019: over 50 percent). Blue Elephant Holding GmbH (Bad Wiessee, Germany) also had no voting-share changes to report in 2020, with its holding in Wacker Chemie AG remaining at over 10 percent (2019: over 10 percent).

A.4 Useful Information on WACKER Stock

ISIN	DE000WCH8881
WKN	WCH888
Frankfurt Stock Exchange	WCH
Bloomberg	CHM/WCH.GR
Reuters	CHE/WCHG.DE
Initial public offering	April 10, 2006
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, 2020)	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, 2020)

WACKER's year-end market capitalization increased from €3.36 billion to €5.80 billion (total stock without treasury shares). WACKER thus has a weighting of 0.6 percent in the MDAX, and is currently ranked 55th (by market capitalization) and 45th (by 12-month trading volume) among the 60 companies included in the index.

Trading Volume

In the reporting year, the average daily trading volume for WACKER stock on Xetra, Germany's regional exchanges, Tradegate and Quotrix was approximately 315,000 shares, which was around 40 percent above the prior-year figure of around 225,000 shares.

WACKER Communicates Closely with Capital Markets

Key elements of corporate strategy include sustainable growth, innovative strength, and lower capital intensity across all segments. These priorities are reinforced through continuous and open communication with institutional and private investors and with analysts. During our many talks, we answered questions from capital-market participants. The latest communication and virtual conferencing technologies enabled us to maintain and even intensify our contacts with investors despite the pandemic and associated travel restrictions. We organized two virtual Capital Market Days in 2020, both of which met with great interest from our investors. Discussions during the year centered on questions about the pandemic's business implications and about the sustainability of the price recovery in solar-grade polysilicon in the second half-year. Investors responded particularly positively to news about the good third-quarter performance and the plans to divest our remaining stake in Siltronic AG. BIOSOLUTIONS' biopharmaceutical activities attracted investor interest after WACKER announced in late November that it was building up capacity to produce CureVac's mRNA-based Covid-19 vaccine at the WACKER Biotech site in Amsterdam.

In 2020, the number of analysts covering WACKER increased slightly to 20 (2019: 19). During the year, analysts' consensus price target for WACKER stock rose markedly. At the beginning of the year, the average price target for WACKER stock was €73 (20 estimates, February 2020). At year-end, analysts set their fair-value price target at €108 on average (18 estimates), roughly 48 percent higher than at the start of the year.

A.5 Banks and Investment Firms Covering and Rating WACKER

Baader Helvea	HSBC
Bank of America	J.P. Morgan Cazenove Ltd.
Berenberg	Kepler Cheuvreux
Citigroup	Landesbank Baden-Württemberg
Commerzbank Corporates & Markets	Morgan Stanley
Credit Suisse	On Field Investment Research
DZ Bank AG	Société Générale
Exane BNP Paribas	Stifel
Fairesearch GmbH & Co. KG	UBS Ltd.
Hauck & Aufhäuser Privatbankiers AG	Warburg Research GmbH

As of the end of December 2020

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

49 — 106

Olives contain hydroxytyrosol – a very powerful antioxidant that has a positive effect on heart health.

b

Combined Management Report

Group Business Fundamentals

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 2020, we opened a technical center in Shanghai for thermally conductive silicones and silicone-based solutions for a growing number of applications in consumer electronics and in the telecommunication industry.

26 Production Sites

WACKER's integrated global production system consists of 26 production sites. Ten are in Europe, eight in the Americas and eight in Asia. The Group's key production site is Burghausen, Germany.

» See Figure B.2 on page 52

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.

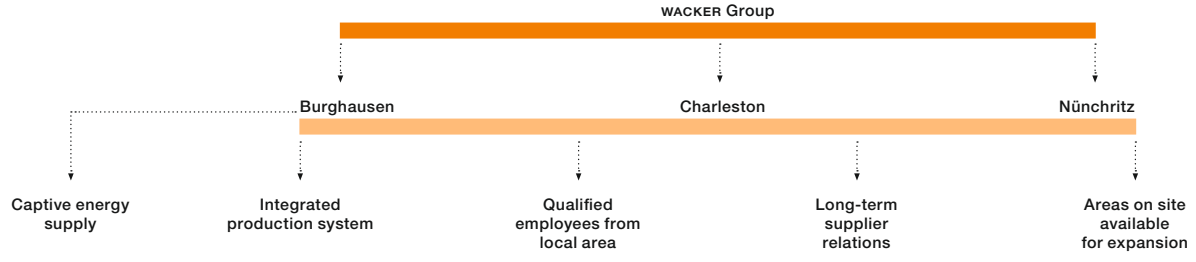
Four Business Divisions

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

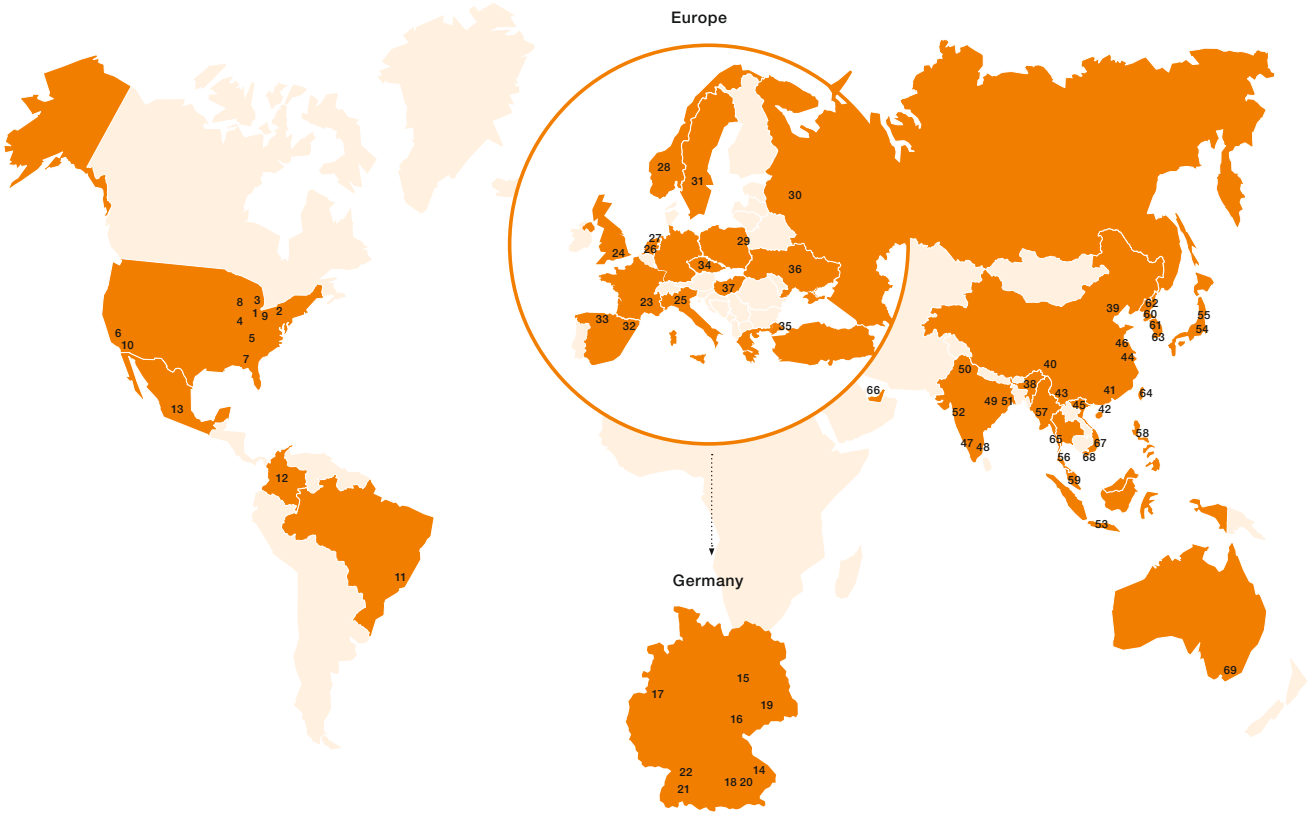
Each business division has global responsibility for its products, manufacturing facilities, markets, customers and results. Regional organizations are responsible for all business in their respective countries. WACKER's corporate departments primarily provide services for the whole Group, although some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

» See Figure B.4 on page 54

B.1 Key Factors for Multidivisional Sites



B.2 WACKER's Production and Sales Sites and Technical Competence Centers[1]



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 San Diego, California, USA
11 Jandira, São Paulo, Brazil
12 Bogotá, Colombia
13 Mexico City, Mexico

Europe

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

Asia

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

Australia

69 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 2020

Due to retirement, a long-standing member of Wacker Chemie AG's Supervisory Board, Konrad Kammergruber, stepped down on September 30, 2020. Dr. Birgit Schwab, who had already been elected as an alternate member, replaced him as an employee representative on the Supervisory Board. With effect from December 31, 2020, Jörg Kammermann, former district chairman of the IG BCE labor union Altötting, stepped down from Wacker Chemie AG's Supervisory Board. Markus Hautmann, new district chairman of the IG BCE labor union Altötting, was appointed as his successor effective January 1, 2021.

There were no changes to the composition of Wacker Chemie AG's Executive Board in 2020. At its meeting on March 11, 2020, the Supervisory Board renewed Dr. Tobias Ohler's contract for five years until 2025.

At another meeting on December 9, 2020, it made key personnel decisions. Dr. Rudolf Staudigl, President & CEO of the Executive Board, will retire at the end of the next Annual Shareholders' Meeting on May 12, 2021. The Supervisory Board appointed Dr. Christian Hartel to succeed him as President & CEO of the Executive Board as of that date. At the same time, Angela Wörl will join the Executive Board as Personnel Director.

» 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.

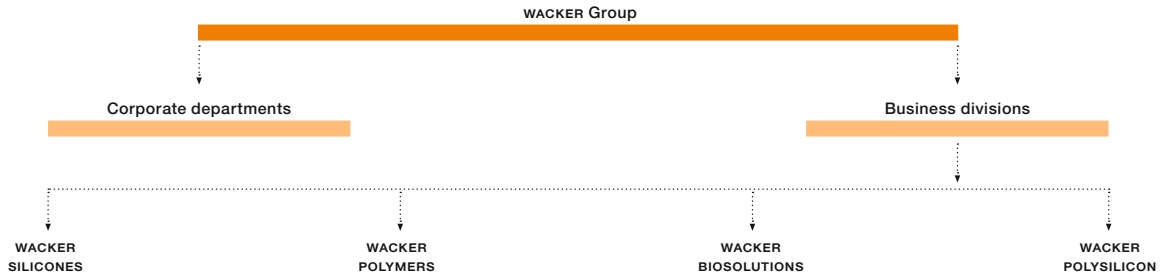
» www.wacker.com/corporate-governance

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 2020. 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.

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

B.3 Group Structure



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 2020. In several application areas, though, we expanded our product portfolio.

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 numerous chemical, mechanical and tactile properties that can be precisely adjusted and newly combined time and again. No other synthetic material offers this kind of versatility and range of applications. Silicones are extremely durable, stress-resistant, water-repellent and UV-resistant. They are just as indispensable in everyday applications as they are in developing innovative, new technologies.

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, vaccines, 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 by products 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.

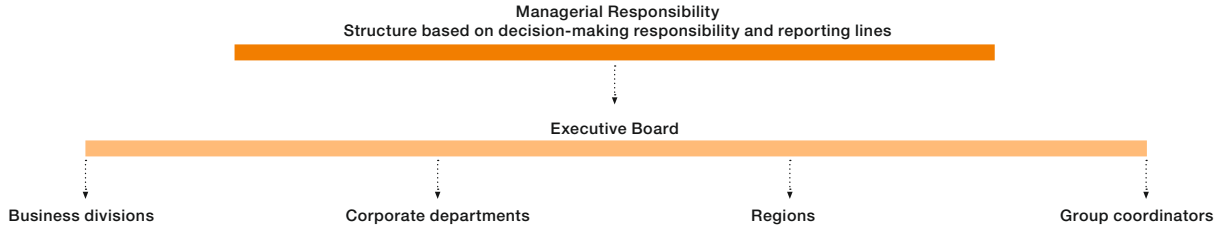
Major Sales Markets and Competitive Positions (unaudited section)

WACKER's three largest divisions rank among the top 3 suppliers worldwide.

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.

B.4 Group Structure in Terms of Managerial Responsibility



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. We consider Asia to offer the largest growth potential.

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 long-term contracts. A 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.

Raw-Material and Energy Costs

As a chemical company, we belong to an energy-intensive industry and require diverse raw materials to manufacture our products. Consequently, increases in raw-material and energy 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 CO_2 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 competitive disadvantages for WACKER. That is why

B.5 WACKER's Competitive Positions

	Number 1	Number 2	Number 3
WACKER SILICONES	Dow	WACKER	KCC + Momentive
WACKER POLYMERS	WACKER	Celanese	Dairen
WACKER POLYSILICON solar applications	Yongxiang	Daqo	WACKER
WACKER POLYSILICON semiconductor applications	WACKER	Hemlock	Tokuyama

(Table B.5 unaudited)

we advocate introducing an industrial electricity price and 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 €39 million. In 2020, we also concluded hedging transactions in Japanese yen (JPY).

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 US manufacturers of solar-grade polysilicon. These tariffs currently affect solar-grade 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 ongoing strategic business goals are to:

- Expand our production capacities, with capital expenditures below depreciation/amortization
- Generate higher growth than the average rate for the chemical industry
- Focus strongly on sustainability
- Achieve attractive margins throughout the economic cycle
- Increase 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 CO_2 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.

The aim of our Shape the Future program, launched in late 2019, is to cut costs and enhance efficiency. Our business divisions and corporate departments are reorganizing themselves and, in the process, streamlining their workflows and structures. At the same time, we are strengthening the responsibility of our regional entities. By the end of 2022, WACKER intends to save a total of €250 million. This includes cutting more than 1,000 jobs, mainly in Germany.

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.

In polysilicon, our WACKER POLYSILICON division is concentrating on business-process efficiency. Top priorities are cutting production costs markedly, bolstering the output of existing manufacturing plants, and reducing energy and raw-material consumption. At the same time, we will maintain the high standard of quality that has made us an industry benchmark. Our business is focused on increasing output for semiconductor customers and on satisfying the growing demand for monocrystalline applications in 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 2020, 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 from 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.

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 2020

EBITDA margin: in 2020, the target margin was 20 percent. The Group actually achieved an EBITDA margin of 14.2 percent.

B.6 Planned and Actual Figures

€ million	Reported for 2020	Forecast 2020	2019
EBITDA margin (%)	**14.2**	Somewhat lower than last year	15.9
EBITDA	**666.3**	About 20% lower than last year	783.4
ROCE (%)	**5.6**	Clearly positive, substantially higher than last year	–11.3
Net cash flow	**697.7**	Clearly positive, substantially higher than last year	184.4

EBITDA: we expected EBITDA to be some 20 percent lower in 2020 than a year earlier. The 14.9 percent contraction in EBITDA was in line with our expectations. The main reason for this drop was the special income of €112.5 million in insurance compensation we had booked in 2019. Adjusted for this income, the year-over-year decline in EBITDA was 0.7 percent. The pre-tax cost of capital was 10 percent in 2020. We reached our BVC target for the Group in 2020. At €–169 million, BVC was still negative but significantly better than in the prior year (2019: €–1.1 billion).

B.7 ROCE and BVC

€ million	2020	2019
EBIT	**262.8**	–536.3
Capital employed[1]	**4,111.4**	5,183.5
ROCE[2] (%)	**5.6**	–11.3
Pre-tax cost of capital (%)	**–10.1**	10.0
BVC[3]	**–169.3**	–1,102.4

[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.

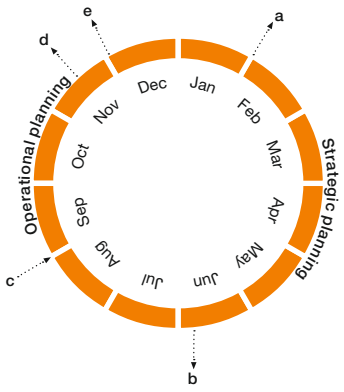
ROCE: WACKER's ROCE in 2020 was 5.6 percent. In our March 2020 forecast, we had expected ROCE to be positive and substantially above the prior-year level.

Net cash flow: our 2020 guidance was for a clearly positive figure, substantially higher than the year before. At €697.7 million, net cash flow was much better than we had forecast. The reason for the improvement were lower investment spending and significant reductions in current assets.

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 2020, please refer to the Financial Position section on page 74.

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)

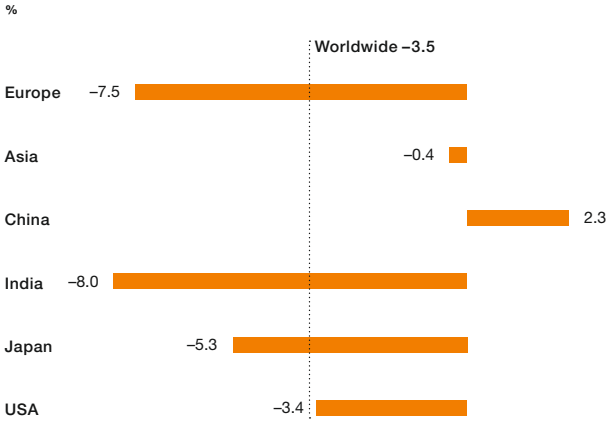
	The following table contains information required by Section 315a (1) of the German Commercial Code (HGB):	
§ 315a (1) 1	Composition of subscribed capital:	Wacker Chemie AG's subscribed capital comprises 52,152,600 non-par value voting shares. No other share classes have been issued. The total number 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 August 4, 2020 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

In 2020, the coronavirus pandemic resulted in the deepest recession in almost a century. According to the International Monetary Fund (IMF), the global economy contracted by 3.5 percent. The decline in economic activity was particularly pronounced in the eurozone. According to economists, GDP in Italy was down by some 9.2 percent and, in Spain, by 11.1 percent year over year. Despite some extensive government aid packages, the pandemic significantly increased unemployment and poverty in many countries. Even in China, where the pandemic originated at the start of the year, the economy collapsed for a time. But the country posted growth again as early as Q2 2020.

B.10 GDP Trends in 2020



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.

Pandemic Hits the Chemical Industry

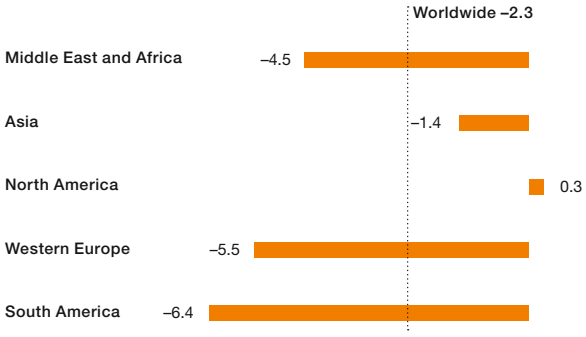
Due to the coronavirus pandemic, global chemical-industry sales fell in the first half of 2020. A recovery started in the summer and lasted until year-end. Demand for chemicals and pharmaceuticals stabilized. According to the German Chemical Industry Association (VCI), the chemical industry's global sales (including pharmaceuticals) totaled €5.1 trillion in 2019, with Asia accounting for over 50 percent. In recent years, the centers of growth have shifted increasingly toward emerging markets. Investment activities are intensifying in countries with low energy and raw-material costs. Europe benefits from these growth markets through foreign trade. This trend continued in 2020.

For Germany's chemical industry, 2020 was a difficult year. Based on VCI figures, sales in this sector, Germany's third-largest industry, contracted 6 percent to €186 billion (2019: €193 billion). The pandemic-related decline in orders impacted not only international business in nearly every export market (–6.5 percent), but also sales in Germany (–5.5 percent). Production fell 3 percent. The chemical industry alone, excluding the almost stable pharmaceutical sector, saw a 4 percent drop.

Construction Expenditure Decreases

Even though other economic sectors were hit much harder by the coronavirus pandemic, the construction industry was not spared in 2020. Projects were delayed and investment spending postponed. According to market research institute B+L Marktdaten GmbH, construction expenditure fell in nearly all markets. Globally, construction volume decreased by –2.3 percent to US$ 9.11 trillion (2019: US$ 9.32 trillion). The strongest drop was in South America at –6.4 percent. But in Western Europe, too, construction volume was significantly below the prior-year level (down 5.5 percent).

B.11 Growth Rate in Construction by Region in 2020



Source: B+L Marktdaten GmbH, November 2020

Electrical and Electronics Industry Posts Decline

According to estimates of Germany's Electrical and Electronic Manufacturers' Association (ZVEI), the global electrical and electronics market declined 3 percent to about €4.37 trillion in 2020 (2019: €4.51 trillion). While the pandemic caused a drop of around 7 percent in advanced economies, the decline in emerging-market countries was comparatively moderate at 1 percent.

Photovoltaics Pivotal to Global Energy Supply

The global solar industry expanded further in 2020. Various market studies and our own market surveys show that some 140 gigawatts (GW) were newly installed worldwide (2019: about 120 GW). That was around 17 percent more than the year before. The amount of installed PV capacity worldwide exceeded 700 GW at year-end 2020. About half of the new capacity in 2020 was added in China, Japan and the USA. Global PV markets thus grew year over year despite the pandemic's negative impact. Key factors in the global expansion of PV installations were incentives coupled with substantially lower system costs. Today, photovoltaics are already competitive compared with electricity generated from conventional energy sources. The non-incentivized cost of solar energy has continued to fall. In several solar auctions in sun-rich regions, the electricity-trading price was down to below US$ 15 per megawatt hour.

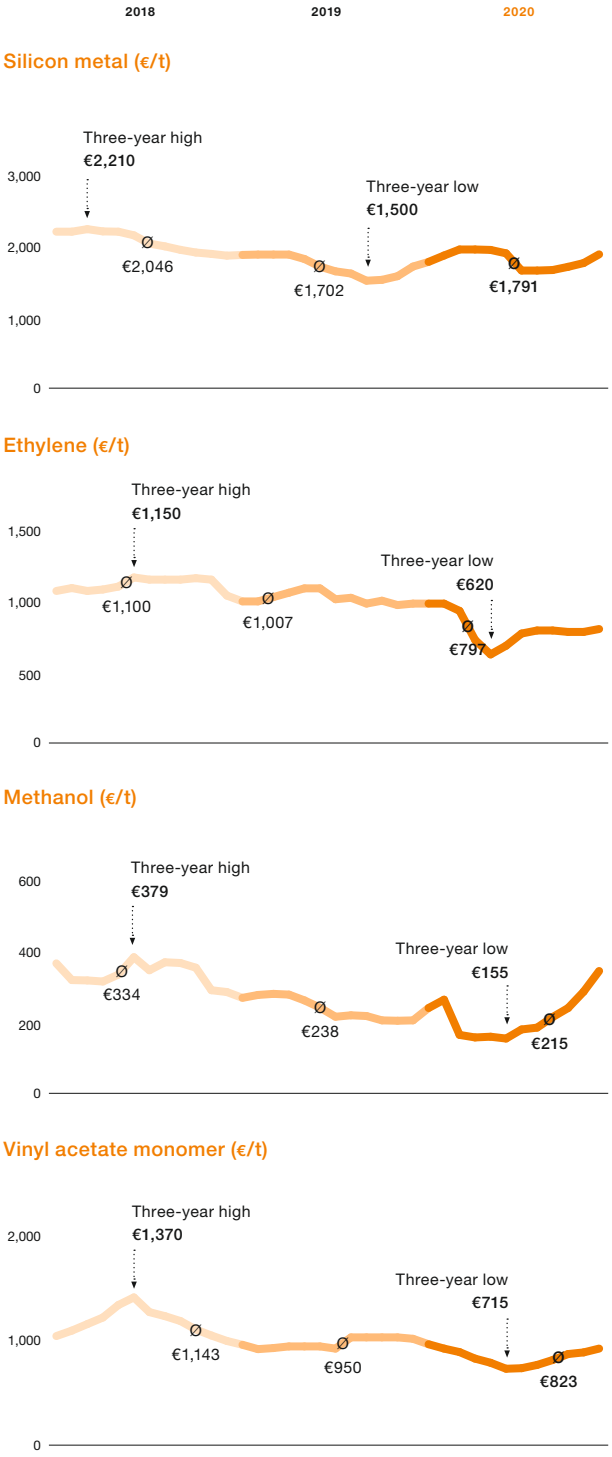
B.12 Installation of New PV Capacity in 2020 and 2019

	Installation of New PV Capacity (MW)		Growth in 2020
	2020	2019	%
Germany	4,800	4,000	20
Spain	2,600	4,700	–45
Rest of Europe	13,000	13,000	0
USA	19,000	13,300	43
Japan	8,200	7,500	9
China	48,200	30,100	60
India	3,500	7,300	–52
Other regions	40,700	40,100	1
Total	140,000	120,000	17

Sources: Germany's Federal Network Agency, Solar Energy Industries Association (SEIA), 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 China, year-over-year growth was stable despite the difficult underlying conditions. Strong competitive pressure persists throughout the supply chain.

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

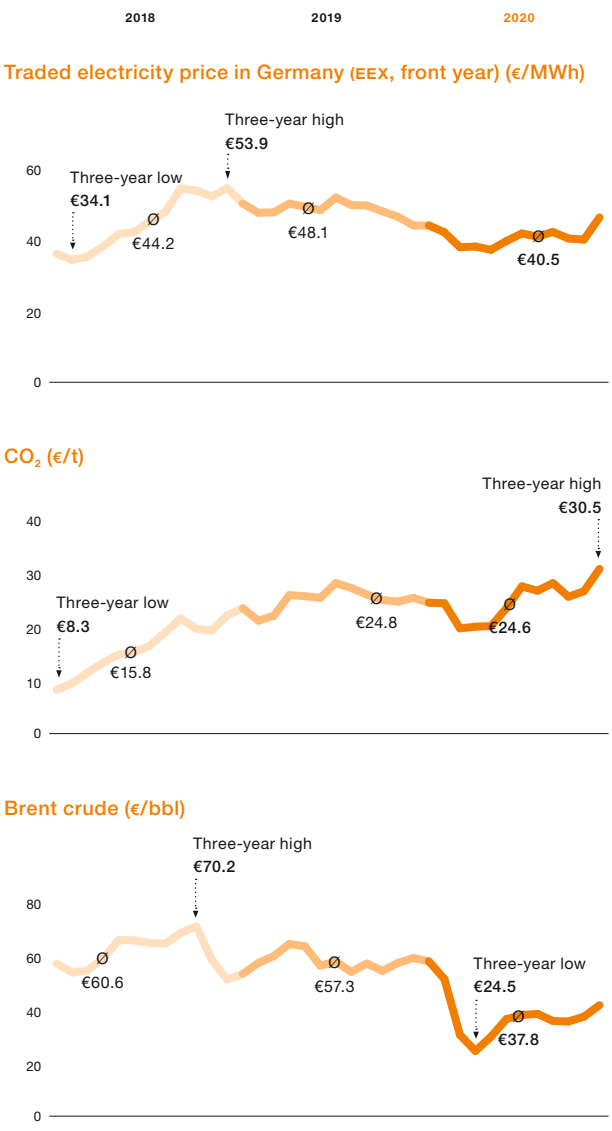
In 2020, raw-material prices were lower on balance than a year earlier, with prices developing differently for certain materials. Price trends reflected pandemic-driven demand shifts, which were sometimes abrupt. Entire supply chains were impacted. After rising at the start of the year, metallurgical-grade silicon prices fell in the second and third quarters due to lower demand, particularly for aluminum applications. Prices then recovered toward year-end. Ethylene prices in Europe were largely determined by naphtha, which is the main cost factor, and thus by the price trend for crude oil. Methanol prices dropped steeply until mid-year, reflecting not only the buoyant supply situation, but also movements in coal and oil prices, which are decisive for methanol pricing. Subsequently, prices climbed strongly due to higher precursor prices and lower volume availability. The trend for vinyl acetate monomer was similar. Prices initially fell due to both weaker demand amid the pandemic and lower prices for upstream products, before picking up in the second half-year.

Electricity and CO_2 Prices Fall

The coronavirus pandemic triggered a pronounced but temporary drop in prices for WACKER's key energy sources in spring 2020. On the global crude oil market, prices fell to a three-year low amid the demand slump. After OPEC cut production and the pandemic-related restrictions eased, prices recovered slowly during the year, but did not reach their previous level. Germany's electricity prices initially continued dropping, impacted by historically low gas and coal prices, by high feed-in levels of renewable electricity and by lower industrial demand. They then stabilized during the year at a price of around €40/MWh. Electricity prices reached their annual high at year-end, driven by soaring gas, coal and CO_2 prices. Electricity prices in Germany are also subject to levies and fees, including grid fees, electricity taxes and the German EEG surcharge for renewables.

Prices for CO_2 emission allowances fell to a daily low of around €16 per metric ton in the first quarter. Then, a nascent recovery lifted daily prices above €30 per metric ton for the first time in more than ten years. In the second half of the year, prices initially stabilized at around €25 per metric ton, before surpassing €30 per metric ton in December. The overall price trend showed significant volatility.

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



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

Overall Statement by the Executive Board on Underlying Conditions

In 2020, economic and political risks rose significantly, primarily due to the coronavirus pandemic. As a result, global economic growth slowed markedly. Aside from China, every major economy reported a decrease in economic activity. The last time a global downturn had been so strong was during the financial crisis of 2009.

WACKER's chemical business delivered a solid performance in 2020 given such difficult underlying conditions. In the second quarter of 2020, WACKER posted an especially steep sales contraction. A recovery began early in the third quarter and continued in the fourth quarter. Sales at WACKER SILICONES were well below the year-earlier figure. WACKER POLYMERS, on the other hand, posted only slightly lower sales. At WACKER BIOSOLUTIONS, sales edged up. The operating result for our chemical divisions was slightly lower year over year. The main reason was 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, sales grew slightly due to higher volumes. WACKER POLYSILICON posted significantly lower earnings year over year due to the special income from insurance compensation recognized in 2019. Measured on a comparable basis, its operating result improved significantly.

Due to the pandemic, sales declined in the three major regions: Europe, Asia and the Americas. Sales fell by a mid-single-digit percentage year over year in Europe and Asia and by a high-single-digit percentage in the Americas.

Key Events Affecting Business Performance

Acquisitions and Investments

In 2020, WACKER neither took over nor acquired a stake in any companies.

Divestitures

In 2020, WACKER concluded an agreement to transfer its stake of 30.83 percent in Siltronic AG to GlobalWafers Co. Ltd., Taiwan. The agreement remains subject to various merger-control and foreign-trade clearances.

Capital Expenditures

Capital expenditures decreased year over year, as planned. They amounted to €224.4 million in the reporting year (2019: €379.5 million).

The focus of our investing activities was on the three chemical divisions, with several projects in different countries. In Ulsan, South Korea, we completed a new dispersion reactor. We are expanding our capacities in Nanjing, China, with a new reactor for dispersions and a spray dryer for dispersible polymer powders. In Amsterdam, we invested in setting up coronavirus vaccine production capacity and in biopharmaceutical production plants. 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

During the year, WACKER adjusted its targets for 2020 (published in its 2019 Annual Report) to take account of the pandemic's effects. The main factor here was the steep slump in the global economy in the second quarter. When the company presented its 2019 Annual Report in mid-March, it already made its annual guidance conditional because of the difficulty of reliably estimating the pandemic's implications for its earnings and financial position.

No Guidance after Close of the First Quarter

At the start of 2020, WACKER projected that its sales would increase by a low-single-digit percentage. The EBITDA margin was likely to be slightly lower than a year earlier, with EBITDA about 20 percent lower. ROCE was expected to be positive and substantially higher than the year before. Net cash flow would be clearly positive and substantially higher than the previous year. Capital expenditures would reach around €350 million, with depreciation and amortization amounting to around €425 million. Net financial debt would be substantially lower than the year before.

In its Q1 Interim Report of April 2020, WACKER refrained from issuing full-year guidance. At the time, it was not possible to reliably estimate either how strongly or for how long government measures to contain the global spread of the virus would dampen the company's business.

In its Q2 Interim Report, WACKER again refrained from providing specific guidance for full-year 2020, as it was still not possible to adequately quantify how the global spread of the virus would affect the company's business. But WACKER made it clear that it expected its sales, EBITDA and EBITDA margin for 2020 to be below the previous year's levels due to the pandemic. Net cash flow was likely to be above the year-earlier figure.

In its Q3 Interim Report, WACKER reiterated its expectations for sales, EBITDA and EBITDA margin for 2020. Net cash flow was now likely to be substantially higher than a year earlier.

WACKER Closes 2020 in Line with Its Expectations

In 2020, WACKER posted sales of €4.69 billion (2019: €4.93 billion), down 4.8 percent year over year. The company's sales contracted sharply in Q2 2020 due to the effects of the pandemic. Although WACKER regained some ground in Q3 and Q4, supported mainly by robust demand from the construction industry and for polysilicon, it did not fully make up for that sales slump. WACKER's sales trend was slowed not only by somewhat lower volumes year over year, but also by price changes and exchange-rate effects.

EBITDA was €666.3 million, down 14.9 percent (2019: €783.4 million). The EBITDA margin was correspondingly lower than in the prior year. The main reason for the EBITDA decline was prior-year special income of €112.5 million in insurance compensation. Adjusted for this income, the year-over-year fall in EBITDA was 0.7 percent.

At €697.7 million, net cash flow was substantially higher year over year (2019: €184.4 million). Factors prompting this strong rise included a marked reduction in current assets and much lower capital expenditures. ROCE of 5.6 percent was clearly positive and significantly higher than in the prior year.

In 2020, capital expenditures reached €224.4 million, well below the year-earlier figure of €379.5 million.

At year-end, net financial debt amounted to €67.5 million, down significantly versus the previous year (2019: €713.7 million).

B.15 Expenses by Cost Type

% of sales	2020	2019
Personnel costs	**28.4**	25.6
Raw-material costs	**28.1**	30.0
Energy costs	**7.7**	8.1
Depreciation/amortization and impairments	**8.6**	26.8

B.16 Comparing Actual with Forecast Performance

Key Financial Performance Indicators	Results in 2019	Forecast March 2020	Forecast April 2020	Forecast July 2020	Forecast October 2020	Results in 2020
EBITDA margin (%)	15.9	Somewhat lower than last year	—	Below last year's level	Below last year's level	**14.2**
EBITDA (€ million)	783.4	About 20% lower than last year	—	Below last year's level	Below last year's level	**666.3**
ROCE (%)	–11.3	Clearly positive, substantially higher than last year	—	—	—	**5.6**
Net cash flow (€ million)	184.4	Clearly positive, substantially higher than last year	—	Above last year's level	Substantially higher than last year	**697.7**
Supplementary Financial Performance Indicators						
Sales (€ million)	4,927.6	Low-single-digit percentage increase	—	Below last year's level	Below last year's level	**4,692.2**
Capital expenditures (€ million)	379.5	Around 350	<300	<250	<250	**224.4**
Net financial debt (€ million)	713.7	Substantially lower than last year	—	—	—	**67.5**
Depreciation/amortization and impairments (€ million)	1,319.7	Around 425	—	—	—	**403.5**

Earnings

At €4.69 Billion, Group Sales 5 Percent Below Prior-Year Figure of €4.93 Billion

The WACKER Group's sales in 2020 were lower than the year before. Especially from April through June, sales dropped markedly due to the coronavirus pandemic. The main reasons for the decrease were lower prices and reduced volumes, especially at WACKER SILICONES. Changes in the product mix also had an impact, as did exchange-rate effects attributable to the year-over-year decline in value of the US dollar. The sales contraction was only slight at WACKER POLYMERS, while WACKER BIOSOLUTIONS posted marginal sales growth. WACKER SILICONES recorded sales of €2.24 billion (2019: €2.45 billion), down 9 percent year over year due to reduced volumes and lower prices for standard products. Sales at WACKER POLYMERS came in at €1.30 billion in 2020 (2019: €1.32 billion), down by a slight 1 percent. Sales at WACKER BIOSOLUTIONS edged up 1 percent to €246.1 million (2019: €243.0 million). WACKER POLYSILICON's sales rose 2 percent to €792.2 million (2019: €780.0 million), particularly due to higher volumes in the second half of the year.

» For further information on the business divisions, please refer to the Segments section starting on page 68.

WACKER generated the majority of its sales outside of Germany. International sales came in at €3.91 billion (2019: €4.13 billion), accounting for 83 percent of the total.

» For further information, please refer to the Regions section starting on page 70.

Group EBITDA at €666.3 Million, with EBITDA Margin of 14.2 Percent

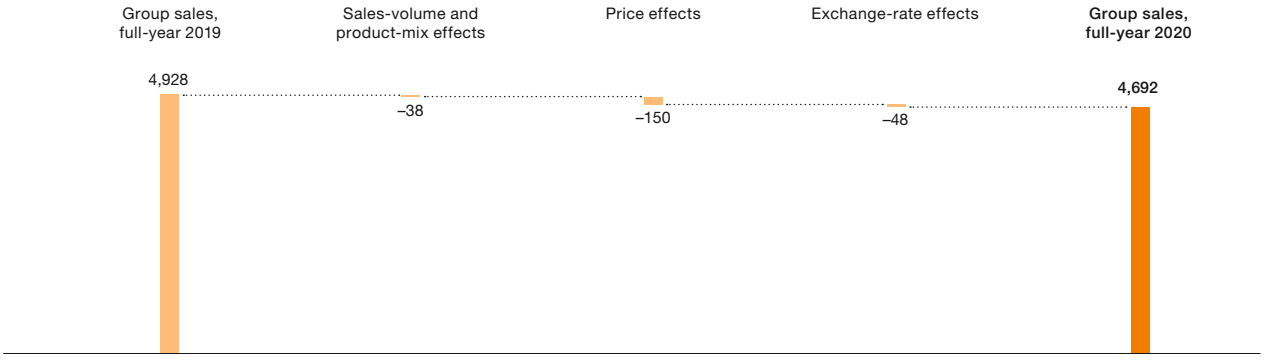
Group EBITDA declined 15 percent year over year, coming it at €666.3 million (2019: €783.4 million). The EBITDA margin of 14.2 percent was lower than in the previous year (2019: 15.9 percent). Prior-year EBITDA included special income in insurance compensation for the damage incurred following the incident at the Charleston (USA) site in 2017. WACKER recognized this special income of €112.5 million under cost of goods sold. Adjusted for this amount, EBITDA totaled €670.9 million in 2020. Measured on a comparable basis, EBITDA fell 1 percent year over year. Despite the marked decline in sales in the second quarter due to the coronavirus pandemic, WACKER reduced its cost of goods sold and functional costs thanks to savings made in current non-personnel costs and to lower raw-material costs. That had a positive effect on EBITDA. The efficiency program also includes job reductions. WACKER set aside €48.0 million for voluntary termination benefits in the fourth quarter. These costs had a negative impact on EBITDA.

A positive factor influencing EBITDA was the Group's income from investments in joint ventures and associates, which amounted to €34.9 million (2019: €54.3 million). Investment income from Siltronic contributed €32.7 million (2019: €51.4 million) to the result from investments in joint ventures and associates.

» For further information on the business divisions, please refer to the Segments section starting on page 68.

B.17 Year-over-Year Sales Comparison

€ million



B.18 Reconciliation of EBITDA to EBIT

€ million	2020	2019	Change in %
EBITDA	666.3	783.4	–14.9
Depreciation/ amortization and (reversals of) impairments of fixed assets	**–403.5**	–1,319.7	–69.4
EBIT	262.8	–536.3	n.a.

EBIT Reaches €262.8 Million

Group earnings before interest and taxes (EBIT) totaled €262.8 million in the reporting period (2019: €–536.3 million), yielding an EBIT margin of 5.6 percent (2019: –10.9 percent). The negative prior-year EBIT was attributable to an impairment charge of €760.0 million recognized on WACKER POLYSILICON's fixed assets because of low polysilicon prices. In 2020, depreciation and amortization totaled €403.5 million (2019: €1.32 billion, including impairment charge).

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

€ million	2020	2019	Change in %
EBIT	262.8	–536.3	n.a.
Financial result	**–44.9**	–54.9	–18.2
Income before income taxes	217.9	–591.2	n.a.
Income taxes	**–15.6**	–38.4	–59.4
Net result for the year	202.3	–629.6	n.a.
Of which			
Attributable to Wacker Chemie AG shareholders	**189.2**	–642.6	n.a.
Attributable to non-controlling interests	**13.1**	13.0	0.8
Earnings per share (€) (basic/diluted)	3.81	–12.94	n.a.
Average number of shares outstanding (weighted)	**49,677,983**	49,677,983	–

Cost of Goods Sold Lower Year over Year

At €869.9 million, gross profit from sales was 8 percent higher than a year earlier (2019: €803.2 million). The cost of goods sold came in at €3.82 billion (2019: €4.12 billion). The gross margin was 18.5 percent (2019: 16.3 percent). WACKER reduced the cost of goods sold by means of efficiency gains, with lower raw-material and energy costs also having a positive effect. The prior-year figure for cost of goods sold included insurance compensation of €112.5 million posted in September 2019 for the incident at the Charleston site. Inventory valuation adjustments increased the cost of goods sold by €22.5 million (2019: €46.3 million). The Group's cost-of-sales ratio declined from 84 percent to 81 percent.

Substantial Decline in Functional Costs

Other functional costs (selling, R&D and general administrative expenses) dropped 7 percent year over year to €586.7 million (2019: €633.4 million). This decline stemmed chiefly from a reduction in non-personnel and travel costs and from efficiency gains across all departments.

Other Operating Income and Expenses

In 2020, the balance of other operating income and expenses was €–57.4 million (2019: €–760.4 million). Other operating expenses included €48.9 million for termination benefits under the voluntary program. Most of these benefits will be paid out in 2021. In the previous year, other operating expenses had included an impairment charge of €760 million on WACKER POLYSILICON's fixed assets. Foreign currency losses of €–7.8 million (2019: €–12.7 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, coming in at €34.9 million (2019: €54.3 million). Investment income from Siltronic was €32.7 million (2019: €51.4 million).

Financial and Net Interest Result

WACKER's financial result improved year over year, amounting to €–44.9 million (2019: €–54.9 million). Interest income was €8.1 million (2019: €10.6 million) and interest expenses reached €22.0 million (2019: €20.3 million). The net interest result was thus €–13.9 million (2019: €–9.7 million). WACKER took on further financial liabilities in 2020 in order to enhance its liquidity.

The other financial result was €–31.0 million (2019: €–45.2 million) and included lower interest-rate effects from provisions for pensions and other provisions as well as exchange-rate effects and the cost of derivative financial instruments used to hedge Group loans.

Income Taxes

WACKER reported tax expenses of €15.6 million for 2020 (2019: €38.4 million). The Group's effective tax rate was 7.1 percent (2019: 22.7 percent, adjusted for the impairment charge of €760 million). Recognized after tax, the investment income from Siltronic AG, which formed part of pre-tax income, reduced the effective tax rate, as did tax-free income and taxes relating to other periods.

Group Net Income

As a result of the effects mentioned, Group net income was €202.3 million, compared with a net loss of €–629.6 million in the previous year.

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 calculating ROCE.

In the reporting year, ROCE was 5.6 percent (2019: –11.3 percent). The main reason for this rise was a marked improvement in EBIT. Capital employed declined due to higher working capital, decreasing from €5,183.5 million to €4,111.4 million in the year under review.

Segments

WACKER SILICONES

Sales at WACKER SILICONES decreased substantially in 2020. At €2.24 billion (2019: €2.45 billion), they were down 8.5 percent year over year. The decline was attributable to lower prices for standard silicones, to reduced volumes and to negative exchange-rate effects. In regional terms, WACKER SILICONES' sales fell in the Americas, Asia and Europe.

EBITDA also decreased year over year. It fell 19.0 percent to €387.8 million (2019: €478.5 million) due to a significant fall in volumes and prices for standard silicones and to reduced volumes in general. The EBITDA margin was 17.3 percent (2019: 19.5 percent).

Capital expenditures dropped 49.9 percent year over year to €96.9 million (2019: €193.6 million). The funds were invested in new facilities, predominantly at sites in Germany. As of December 31, 2020, the division had 5,076 employees (Dec. 31, 2019: 5,267).

B.20 Key Data: WACKER SILICONES

€ million	2020	2019	2018	2017	2016
Total sales	**2,244.0**	2,453.0	2,499.6	2,200.2	2,001.1
EBITDA	**387.8**	478.5	616.6	444.9	361.2
EBITDA margin (%)	**17.3**	19.5	24.7	20.2	18.1
EBIT	**276.8**	375.3	536.7	362.2	280.8
Capital expenditures	**96.9**	193.6	222.7	142.8	88.6
R&D expenses	**60.2**	65.0	60.9	58.6	53.7
Employees (December 31, number)	**5,076**	5,267	5,114	4,737	4,566

WACKER POLYMERS

Sales at WACKER POLYMERS fell by a slight 1.3 percent in 2020, coming in at €1.30 billion (2019: €1.32 billion). Lower prices and negative exchange-rate effects dampened sales growth. While the division sold higher volumes of dispersible polymer powders, its volumes for dispersions decreased.

WACKER POLYMERS' sales in Europe and Asia were on par with the prior year, while sales in the Americas fell. Polymer applications for the construction industry performed well in 2020.

EBITDA came in at €270.5 million, up 39.3 percent versus 2019 (€194.2 million). The rise was prompted by an improvement in the cost of goods sold and by raw-material prices that were lower than a year earlier. The EBITDA margin was 20.8 percent (2019: 14.8 percent).

Capital expenditures declined significantly versus the prior year, amounting to €35.6 million (2019: €62.4 million). These expenditures focused on capacity expansion at Nanjing (China) and on Germany. The number of employees as of December 31, 2020, was lower at 1,540 (Dec. 31, 2019: 1,630).

B.21 Key Data: WACKER POLYMERS

€ million	2020	2019	2018	2017	2016
Total sales	**1,298.5**	1,315.1	1,282.2	1,245.1	1,194.8
EBITDA	**270.5**	194.2	147.7	205.6	261.0
EBITDA margin (%)	**20.8**	14.8	11.5	16.5	21.8
EBIT	**229.3**	153.7	108.0	168.1	223.7
Capital expenditures	**35.6**	62.4	71.0	48.1	37.5
R&D expenses	**32.2**	33.9	30.0	29.3	30.3
Employees (December 31, number)	**1,540**	1,630	1,600	1,539	1,484

WACKER BIOSOLUTIONS

In 2020, WACKER BIOSOLUTIONS lifted its sales 1.3 percent to €246.1 million (2019: €243.0 million), chiefly due to volume growth in biologics and cyclodextrins. Reduced volumes for a number of products had a dampening effect on sales growth. In regional terms, sales were very positive in Europe, but declined in the Americas and Asia.

At €38.1 million, EBITDA was significantly higher year over year (2019: €31.1 million). The increase was due to volume growth and an improved cost structure. The EBITDA margin was 15.5 percent (2019: 12.8 percent).

Capital expenditures climbed year over year to €19.9 million (2019: €13.2 million). That was a rise of 50.8 percent. One investment focus was the new biologics production plant in Amsterdam.

As of December 31, 2020, the division had 764 employees (Dec. 31, 2019: 754).

B.22 Key Data: WACKER BIOSOLUTIONS

€ million	2020	2019	2018	2017	2016
Total sales	**246.1**	243.0	227.0	205.9	206.4
EBITDA	**38.1**	31.1	23.5	37.5	37.0
EBITDA margin (%)	**15.5**	12.8	10.4	18.2	17.9
EBIT	**21.6**	14.0	9.8	26.1	25.7
Capital expenditures	**19.9**	13.2	17.9	15.7	9.1
R&D expenses	**5.7**	6.4	6.3	6.0	6.2
Employees (December 31, number)	**764**	754	709	533	510

WACKER POLYSILICON

WACKER POLYSILICON's sales were slightly higher in 2020, coming in at €792.2 million (2019: €780.0 million). That was a gain of 1.6 percent. The chief reasons for the increase were volume growth and a better product mix. Asia was once again the division's key sales region.

EBITDA at WACKER POLYSILICON totaled €4.7 million (2019: €56.9 million), down 91.7 percent year over year. When the prior-year figure is adjusted for the special income of €112.5 million in insurance compensation for the Charleston incident, EBITDA actually increased by about €60.3 million. In particular, further improvements in the cost of goods sold had a positive impact on EBITDA. The EBITDA margin was 0.6 percent (2019: 7.3 percent).

WACKER POLYSILICON's capital expenditures were once again lower at €24.9 million (2019: €35.3 million). The number of employees declined to 2,180 (Dec. 31, 2019: 2,333).

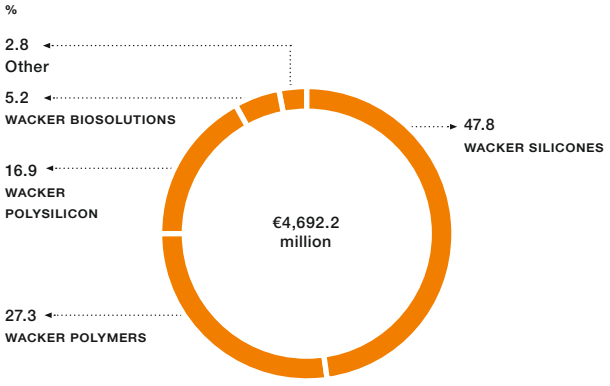
B.23 Key Data: WACKER POLYSILICON

€ million	2020	2019	2018	2017	2016
Total sales	**792.2**	780.0	823.5	1,124.0	1,095.5
EBITDA	**4.7**	56.9	72.4	290.4	285.9
EBITDA margin (%)	**0.6**	7.3	8.8	25.8	26.1
EBIT	**–147.8**	–1,012.9	–257.3	–87.6	–117.1
Capital expenditures	**24.9**	35.3	62.2	57.6	130.0
R&D expenses	**21.3**	30.0	32.8	22.6	18.3
Employees (December 31, number)	**2,180**	2,333	2,549	2,538	2,490

Other

Sales reported under "Other" totaled €128.0 million in 2020 (2019: €157.6 million), down 18.8 percent year over year.

B.24 Divisional Shares in External Sales



"Other" EBITDA amounted to €–35.3 million in the reporting year (2019: €22.4 million). The decline was due to reduced investment income from Siltronic and to one-off costs in connection with the Shape the Future program.

"Other" EBIT was €–117.6 million (2019: €–66.7 million).

As of December 31, 2020, "Other" had 4,723 employees (Dec. 31, 2019: 4,674). 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 €4.69 billion in sales (2019: €4.93 billion), 83.3 percent came from international business (2019: 83.8 percent). Germany accounted for 16.7 percent.

Sales Decline in Asia

In 2020, WACKER's sales in Asia decreased by 4.3 percent to €1.69 billion (2019: €1.76 billion). Sales in Greater China totaled €1.02 billion (2019: €1.05 billion), marginally lower than a year earlier. WACKER's sales in Southeast Asia declined markedly. Asia accounted for 36.0 percent of Group sales (2019: 35.8 percent).

Business Also Weaker in Europe

WACKER's business slowed in Europe. Sales decreased 3.8 percent to €1.93 billion (2019: €2.00 billion). The region delivered 41.1 percent of Group sales (2019: 40.7 percent).

B.25 External Sales by Customer Location

€ million	2020	2019	2018	2017	2016
Europe	**1,927.2**	2,004.0	2,096.7	1,970.4	1,850.9
The Americas	**832.9**	919.5	878.2	838.7	825.6
Asia	**1,687.7**	1,763.8	1,756.9	1,886.2	1,751.6
Other regions	**244.4**	240.3	247.0	228.9	206.1
Total sales	4,692.2	4,927.6	4,978.8	4,924.2	4,634.2

Sales in the Americas Fall Significantly

Sales in the Americas declined 9.4 percent to €832.9 million (2019: €919.5 million) and accounted for 17.8 percent of Group sales (2019: 18.7 percent).

B.26 External Sales by Group Company Location

€ million	2020	2019	2018	2017	2016
Europe	**3,798.2**	3,977.5	4,018.3	4,029.5	3,825.2
The Americas	**1,134.6**	1,249.7	1,106.1	1,167.7	1,116.2
Asia	**918.2**	980.5	979.5	859.5	731.2
Other regions	**11.2**	13.1	13.0	12.1	10.4
Consolidation	**–1,170.0**	–1,293.2	–1,138.1	–1,144.6	–1,048.8
Total sales	4,692.2	4,927.6	4,978.8	4,924.2	4,634.2

Other Regions

Sales in the “other regions” of the world rose sightly, up 1.7 percent to €244.4 million (2019: €240.3 million).

Net Assets

WACKER’s total assets were 7 percent higher compared with December 31, 2019. Climbing €459.5 million, they amounted to €6.95 billion as of December 31, 2020 (Dec. 31, 2019: €6.49 billion). The biggest changes related to liquidity. Due to higher cash inflows from operating activities and to additional bank loans raised, WACKER recognized liquid assets of €1.34 billion as of December 31, 2020. In December 2020, WACKER accepted an offer from GlobalWafers Co. Ltd., Taiwan, to transfer WACKER’s remaining shares in Siltronic to GlobalWafers in the event the latter’s takeover bid for the company is successful. For this reason, we reclassified this equity-accounted investment to assets held for sale. On the equity and liabilities side, provisions for pensions increased due to lower discount rates. This caused a marked drop in equity.

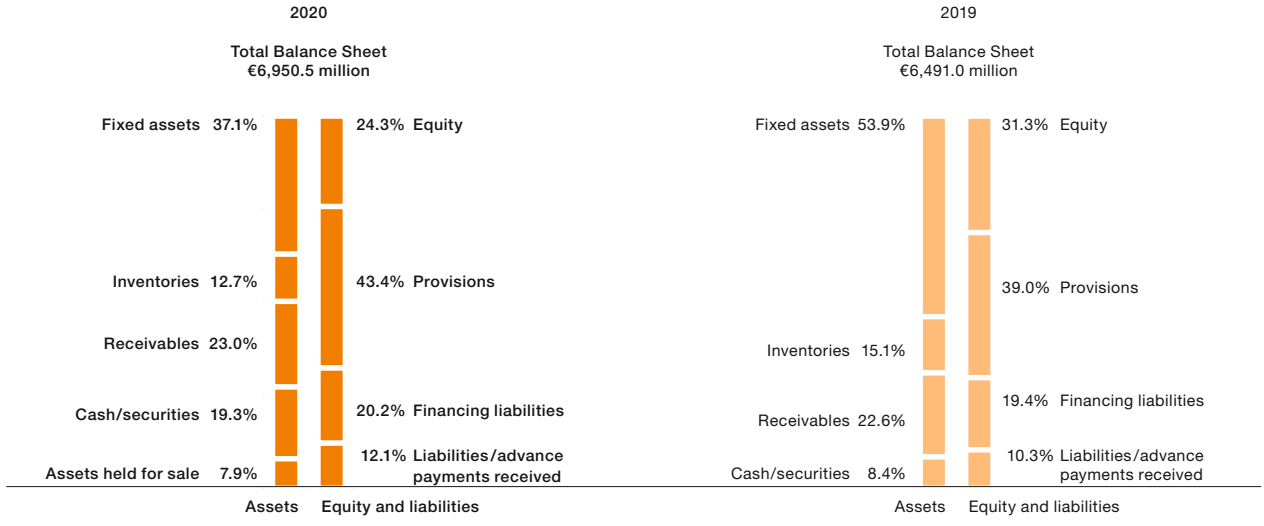
B.28 Trends: Assets

€ million	2020	2019
Intangible assets, property, plant and equipment, investment property and right-of-use assets	2,527.8	2,801.8
Investments in joint ventures and associates accounted for using the equity method	49.1	640.4
Other noncurrent assets	794.6	700.8
Noncurrent assets	**3,371.5**	**4,143.0**
Inventories	879.5	979.8
Trade receivables	627.0	631.5
Other current assets	2,072.5	736.7
Current assets	**3,579.0**	**2,348.0**
Total assets	**6,950.5**	**6,491.0**

Fixed Assets Decline Due to Reclassification of Shares in Siltronic

Relative to the end of the previous year, fixed assets (including equity-accounted investments) fell €865.0 million to €2.58 billion (Dec. 31, 2019: €3.44 billion). Property, plant and equipment declined to €2.39 billion (Dec. 31, 2019: €2.64 billion) as a result of depreciation. Current depreciation/amortization amounted to €403.5 million. Capital expenditures decreased to €224.4 million (2019: €379.5 million). Investments were focused on WACKER

B.27 Asset and Capital Structure



SILICONES and WACKER POLYMERS, as well as on infrastructure measures. WACKER responded flexibly to the economic risks associated with the coronavirus pandemic by postponing a portion of its capital expenditures. Over half of investment spending was in Germany. Exchange-rate effects decreased the carrying amount of property, plant and equipment by about €100 million. The effects stemmed from the rise in value of the euro against the US dollar in the course of the year.

On the assets side, a total of €110.8 million was recognized in right-of-use assets from leases (Dec. 31, 2019: €119.8 million). At the same time, €122.8 million was recognized in financing liabilities from leases (Dec. 31, 2019: €137.8 million). WACKER's investment property included right-of-use assets of €1.2 million (Dec. 31, 2019: €7.1 million) for long-term sublease agreements for parts of its Munich headquarters.

On December 9, 2020, Wacker Chemie AG signed an agreement with GlobalWafers Co. Ltd., a Taiwanese competitor of Siltronic AG, to sell WACKER's stake of 30.83 percent in Siltronic as part of a takeover bid by GlobalWafers. The offer period ended on February 10, 2021, with more than 50 percent of Siltronic's shareholders accepting the offer price of €145 per share. Effective December 31, 2020, WACKER reclassified its investment of €550.4 million in Siltronic to assets held for sale. As a result, WACKER's equity-accounted investments are now lower at €49.1 million (Dec. 31, 2019: €640.4 million).

Other Noncurrent Assets

Other noncurrent assets totaled €794.6 million as of December 31, 2020 (Dec. 31, 2019: €700.8 million), up 13 percent year over year. Deferred tax assets rose markedly, from €632.9 million to €770.8 million, reflecting higher provisions for pensions. A repayment of €50.8 million was posted on a loan made to a joint venture.

Working Capital Down 14 Percent

Current assets grew 52 percent year over year and amounted to €3.58 billion (Dec. 31, 2019: €2.35 billion). The increase was due mainly to the build-up of liquid assets. Inventories decreased 10 percent, from €979.8 million to €879.5 million. The decline stemmed chiefly from heightened demand for our products in the second half of 2020 following a steep pandemic-induced drop in sales in Q2 2020.

As of December 31, 2020, working capital was down 14 percent year over year, coming in at €1.08 billion (Dec. 31, 2019: €1.26 billion). The 10 percent reduction in inventories was a factor in this decrease. Trade receivables were almost unchanged at €627.0 million. Trade payables rose 20 percent due to a higher procurement volume in the second half of 2020 and extended payment terms. Prior to that, WACKER had scaled back its procurement volume in Q2 because of a decline in sales and production volumes.

B.29 Working Capital

€ million	2020	2019	Change in %
Trade receivables	627.0	631.5	–0.7
Inventories	879.5	979.8	–10.2
Trade payables	–424.2	–355.0	19.5
Working capital	1,082.3	1,256.3	–13.9

Liquidity Increases to €1.34 Billion

Securities, fixed-term deposits, and cash and cash equivalents are major components of other current assets. Current securities and fixed-term deposits amounted to €712.0 million at the end of Q4 2020 (Dec. 31, 2019: €109.4 million) after WACKER invested liquid assets in funds and fixed-term deposits. Cash and cash equivalents reached €626.0 million as of December 31, 2020 (Dec. 31, 2019: €435.8 million). Total liquid assets (current and noncurrent securities, cash and cash equivalents) thus grew to €1.34 billion year over year (Dec. 31, 2019: €545.2 million). That was a year-over-year increase of 145 percent. The rise resulted primarily from the decline in working capital and from the company scaling back its investing activities. In June, WACKER issued new promissory notes (German Schuldscheine) for €300 million (2019: €200 million). In Q4 2020, on the other hand, the company made a special payment of €73.4 million to the WACKER pension fund (2019: €70.7 million). Wacker Chemie AG's dividend payment of €24.8 million in Q3 2020 (2019: €124.2 million) also reduced liquid assets. In the previous year, the €112.5 million in insurance compensation received for the damage incurred at the Charleston site in the USA benefited liquidity.

B.30 Trends: Equity and Liabilities

€ million	2020	2019
Equity	**1,691.8**	2,029.0
Noncurrent provisions	**2,947.2**	2,507.9
Financing liabilities	**1,322.7**	1,049.0
Other noncurrent liabilities	**162.5**	152.8
Of which noncurrent advance payments	**71.1**	61.0
Noncurrent liabilities	**4,432.4**	3,709.7
Financing liabilities	**82.8**	209.9
Trade payables	**424.2**	355.0
Other current provisions and liabilities	**319.3**	187.4
Current liabilities	**826.3**	752.3
Liabilities	**5,258.7**	4,462.0
Total equity and liabilities	**6,950.5**	6,491.0
Capital employed	**4,111.4**	5,183.5

Equity Ratio at 24.3 Percent

Group equity declined substantially year over year. It amounted to €1.69 billion as of December 31, 2020 (Dec. 31, 2019: €2.03 billion). The corresponding equity ratio was 24.3 percent (Dec. 31, 2019: 31.3 percent). The net profit for the year increased retained earnings by €202.3 million, whereas the prior year had ended with a net loss of €629.6 million. The dividend payment of Wacker Chemie AG reduced retained earnings by €24.8 million. The change in provisions for pensions, which was recognized in other comprehensive income, lowered other equity items by €340.8 million. Currency translation had a negative impact of €179.8 million on equity. The share of equity attributable to non-controlling interests amounted to €66.6 million as of the reporting date (Dec. 31, 2019: €62.1 million).

Liabilities Increase Amid Higher Provisions for Pensions

WACKER's liabilities grew by €796.7 million compared with the previous year, up 17.9 percent to €5.26 billion. Provisions for pensions climbed €438.1 million year over year and totaled €2.71 billion. This increase was attributable to lower discount rates. The discount rates were 0.70 percent in Germany (Dec. 31, 2019: 1.25 percent) and 2.29 percent in the USA (Dec. 31, 2019: 3.16 percent). Other noncurrent provisions mainly comprised anniversary provisions, and provisions for environmental protection and phased early retirement.

Overall, other noncurrent liabilities were on par with the prior year at €162.5 million (Dec. 31, 2019: €152.8 million). They mainly comprised contract liabilities in the shape of advance payments received and noncurrent income tax liabilities.

Trade payables rose markedly, to €424.2 million (Dec. 31, 2019: €355.0 million). The main causes were higher fourth-quarter procurement volumes and extended payment terms.

Other current provisions and liabilities climbed 70 percent to €319.3 million (Dec. 31, 2019: €187.4 million), reflecting the rise in personnel liabilities and provisions for pensions. Performance-based compensation for 2020 was much higher than a year earlier and increased liabilities. Further, €48.0 million was recognized in provisions for termination benefits relating to a voluntary program. Current advance payments received amounted to €46.7 million as of the reporting date (Dec. 31, 2019: €46.3 million).

Financing Liabilities Rise

Current and noncurrent financing liabilities rose €146.6 million to €1.41 billion as of the reporting date (Dec. 31, 2019: €1.26 billion). Exchange-rate effects reduced financing liabilities by around €35 million. In Q2 2020, WACKER took out new loans totaling €300 million at favorable conditions, taking advantage of the prevailing low interest rates. Financing liabilities are mostly denominated in euros and US dollars. Fixed interest is payable on the majority of the financing liabilities.

As of December 31, 2020, WACKER recognized lease liabilities of €122.8 million (Dec. 31, 2019: €137.8 million).

For further information on our financing liabilities, please refer to Note 16 in the Notes to the consolidated financial statements. For further information on the principles and goals of financial management, please refer to Note 13 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 transactions. WACKER covers the resulting liquidity needs via suitable instruments such as intra-Group lending, 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 2020

In April 2020, WACKER repaid a further installment of US$ 130 million of its private placement in the United States. Promissory notes (German Schuldscheine) of €300 million were finalized in June 2020, with maturities of four and six years. These promissory notes replace short-term interim financing of €250 million. In the fourth quarter, WACKER signed a European Investment Bank (EIB) loan for €290 million. This loan has a maturity of five years from utilization and will be drawn in 2021 or 2022.

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

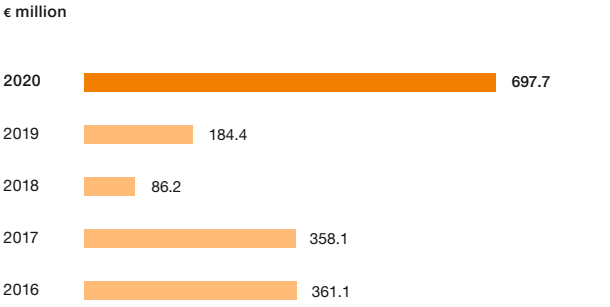
In 2020, WACKER clearly achieved its long-term policy of financing investments essentially from its own cash flow. Net cash flow totaled €697.7 million in 2020 (2019: €184.4 million).

B.31 Net Cash Flow

€ million	2020	2019	Change in %
Cash flow from operating activities (gross cash flow)	**873.7**	605.0	44.4
Cash flow from long-term investing activities before securities	**–176.0**	–420.6	–58.2
Net cash flow	697.7	184.4	>100

Net cash flow is defined as the sum of cash flow from operating activities and cash flow from long-term investing activities (excluding securities).

B.32 Net Cash Flow



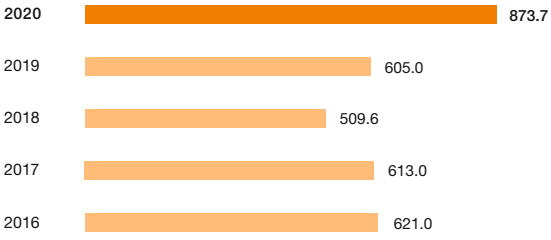
Gross Cash Flow

In 2020, cash flow from operating activities (gross cash flow) totaled €873.7 million (2019: €605.0 million). Aside from the net income for the year of €202.3 million (2019: €–629.6 million), gross cash flow was improved by positive changes of €100.0 million in working capital (2019: higher cash outflows of €35.4 million). Operating cash flow was increased by the depreciation/amortization and impairments of €403.5 million (2019: €1.32 billion) included in net income. In the previous year, depreciation/amortization and impairments had included the impairment charge on WACKER POLYSILICON's

fixed assets. The improvement in working capital was due primarily to lower inventories and to the higher level of trade payables at year-end. The profit of €34.9 million from investments in joint ventures and associates (2019: €54.3 million) included in net income for the year reduced gross cash flow. Siltronic AG's dividend payment of €27.8 million lifted gross cash flow. The special payment of €73.4 million to the pension fund also influenced gross cash flow.

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

€ million

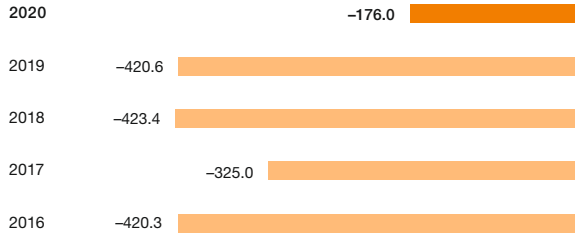


Cash Flow from Long-Term Investing Activities

The Group's investment projects are the key factors influencing cash flow from long-term investing activities. In 2020, cash payments of €–226.5 million for investments were less than the prior-year figure (2019: €–415.1 million). The WACKER Group reduced its investment spending in the wake of the coronavirus pandemic. More than half of the reported capital expenditures were made in Germany. WACKER received a partial repayment of €50.1 million on a strategic loan made to equity-accounted Dow Siloxanes (Zhangjiagang) Co. Ltd. Cash flow from long-term investing activities amounted to €–176.0 million in 2020 (2019: €–420.6 million).

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

€ million



Cash Flow from Financing Activities

Cash flow from financing activities totaled €117.1 million in the reporting year (2019: €–26.2 million). It reflects the impact of external financing liabilities for a net amount of €177.1 million (2019: €142.0 million). Wacker Chemie AG's dividend payment of €24.8 million led to a cash outflow in the third quarter. Repayments of lease liabilities amounted to €–31.8 million (2019: €–34.8 million).

Cash and Cash Equivalents

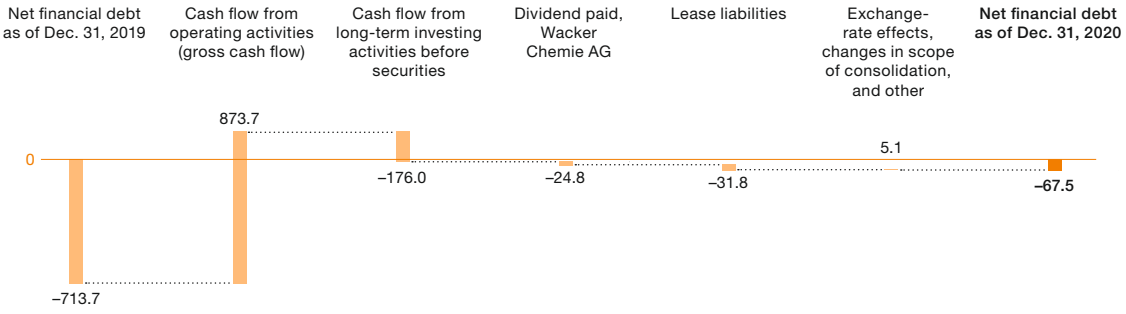
Cash and cash equivalents increased to €626.0 million (2019: €435.8 million). Liquidity from cash and from current and noncurrent securities rose markedly, from €545.2 million to €1,338.0 million.

High Liquidity Reduces 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 financing liabilities) and existing noncurrent and current liquidity, consisting of securities, cash and cash equivalents. Net financial debt amounted to €67.5 million as of December 31, 2020 (Dec. 31, 2019: €713.7 million), down 91 percent year over year.

B.35 Net Financial Debt

€ million



The decrease in net financial debt is primarily attributable to the cash inflows from operating activities and to lower investment spending.

Aside from the financing liabilities disclosed in the report on net assets, WACKER has at its disposal an adequate amount (more than €600 million) in unused lines of credit 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 engage in any off-balance-sheet financing.

Rating

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

Proposal on Appropriation of Profits

In 2020, Wacker Chemie AG posted a retained profit of €1,198.6 million under German Commercial Code accounting rules. The Executive and Supervisory Boards will propose a dividend of €2.00 per share at the Annual Shareholders' Meeting. Based on the number of shares entitled to dividends as of December 31, 2020, the total cash dividend corresponds to a payout of €99.4 million. Calculated in relation to WACKER's average share price in 2020, the dividend yield is 2.9 percent.

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

In 2020, WACKER's operations were characterized by the worldwide economic impact of the coronavirus pandemic. Sales were down substantially in the second quarter, but picked up again overall in the second half of 2020. Among our chemical divisions, WACKER SILICONES posted the steepest decline in sales, due to reduced volumes and to lower average prices for standard silicones. Sales at WACKER POLYMERS came in only slightly lower than in the previous year, while WACKER BIOSOLUTIONS managed to grow its sales slightly. WACKER POLYSILICON also recorded a slight increase in sales, underpinned by volume growth.

Earnings in the chemical divisions were depressed by lower average sales prices for some product groups, as well as by reduced volumes and negative exchange-rate effects. Positive effects on EBITDA, on the other hand, came from lower raw-material costs and from measures to improve productivity. ROCE improved significantly year over year. WACKER POLYSILICON's EBITDA was slightly positive in 2020, primarily due to successful cost-cutting measures and volume growth.

Personnel expenses rose, both in absolute terms and as a percentage of sales, due to higher expenses for pensions and variable compensation. Raw-material costs declined in absolute terms and as a proportion of sales. Energy costs were lower year over year, especially because of the decline in natural-gas prices. Depreciation and amortization were substantially lower, both in absolute terms and as a percentage of sales.

At €1.69 billion, Group equity was down €337.2 million year over year. This was mainly caused by the recognition in other comprehensive income of changes in provisions for pensions. The equity ratio declined from 31.3 percent to 24.3 percent. The Group's net financial debt decreased significantly. Substantial reductions in current assets, coupled with significantly reduced investment spending, were among the causes of that decline. Net financial debt amounted to €67.5 million as of December 31, 2020. Capital expenditures decreased significantly year over year. At €224.4 million, they were clearly below depreciation/amortization. Net cash flow of €697.7 million was substantially higher than in the previous year.

Given the coronavirus pandemic's severe impact on the global economy, WACKER performed well overall in 2020. The composition of the portfolio once again proved its worth in the present crisis, enabling the company to at least partially offset weaknesses in specific industries.

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 serving 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 3.3 percent, down slightly from 2019 (3.5 percent).

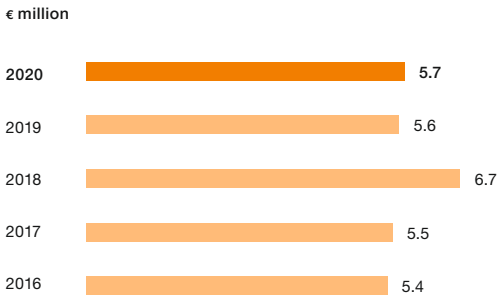
B.36 R&D Expenses

€ million	2020	2019	2018	2017	2016
Research and development expenses	**156.6**	173.3	164.6	153.1	150.0

In 2020, we filed 91 patent applications (2019: 99). Worldwide, our portfolio contains about 4,200 active patents, with 1,400 patent applications currently pending. We license R&D know-how from third parties to a limited extent. 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.

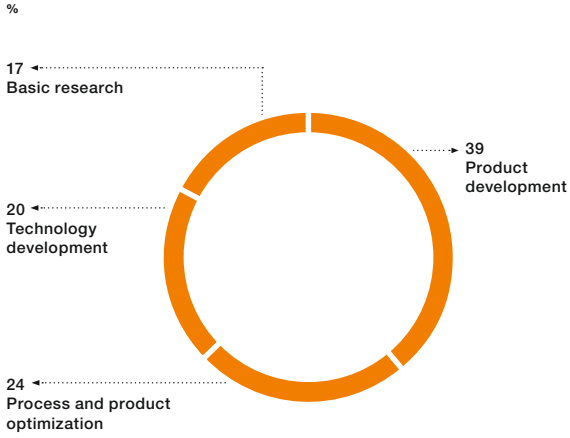
We invested in new laboratories and equipment, as well as in pilot facilities and pilot reactor technologies. We further automated and digitalized the work processes at our international R&D competence centers. At the Nünchritz site, we built a pilot facility for an innovative resin technology.

B.37 Investments in R&D Facilities



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

B.38 Breakdown of R&D Expenditures in 2020



The aim of our New Solutions initiative is to develop technically and commercially superior solutions for new applications. We combine our company-wide expertise and apply it across interfaces as needed.

Some of our research projects are subsidized by government grants. In the reporting period, these projects were focused on process-specific topics, electromobility and lightweight construction.

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. 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 such as electricity storage, construction applications, and 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 2020, the Group had 752 R&D staff (2019: 766), accounting for 5.3 percent of the workforce (2019: 5.2 percent). Of these, 590 were employed at R&D units in Germany and 162 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, which was held as an online event in the reporting year. The recipients were SeungA Lee and JungEun Lee from WACKER's Center of Excellence Electronics in Seoul, Korea, who had developed silicone resins for optical-bonding applications. Their work enables the creation of customized solutions for the burgeoning market in high-quality non-reflective displays. In optical bonding, silicone gels bond the thin cover glass with the electronic layers beneath. Non-reflectivity is achieved by filling the gap with a gel, displacing air in the process.

For the first time ever, WACKER also presented a Lifetime Achievement version of this award to recognize outstanding performance during an individual's career. This award went to an Indian researcher, Amit Paul of WACKER Metroark Chemicals in Kolkata, who succeeded in developing water-free mixtures of silane oligomers and surfactants for treating cement compounds – the resulting hydrophobic cement gives concrete and mortar compounds water-repellent properties. One of his other achievements was to develop a silicone fluid emulsion of low particle size, which is now used in hair-care products and in high-performance additives for cosmetics, varnish formulations and crop protection.

Selected Corporate R&D Research Topics

Our corporate R&D work is focused on projects to advance sustainability, such as the circular economy and renewable resources. We are conducting research into the use of sustainable methods to continuously reduce the carbon footprint of our products and production methods. We are working to develop biodegradable polymer components made from CO_2 for use in silicone products and for vinyl acetate-ethylene (VAE) copolymers. In these areas, Corporate R&D is collaborating very closely with WACKER SILICONES and WACKER POLYMERS. To enhance the efficiency of our research, we also participate in publicly funded projects, such as the Kopernikus project P2X. As part of this project, we are investigating technologies to convert electricity from renewable sources into other forms of energy, such as chemicals and synthetic building blocks.

» https://www.kopernikus-projekte.de/en/projects/p2x/

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

The catalysts required for crosslinking silicones contain precious metals like platinum. These not only make the manufacturing process expensive, but also remain present in the silicone. In the reporting year, researchers at the WACKER Institute of Silicon Chemistry and at the WACKER Group successfully cured silicone rubber compounds without resorting to precious-metal catalysts. Rather than working with the standard crosslinkers, they instead used silicone building blocks containing silirane units. The silicone elastomers produced in this way display exceptional purity and contain neither volatile substances nor traces of precious metals.

International partners are testing our highly innovative silicon-based anode materials for suitability in such applications as consumer electronics and batteries to propel electric vehicles. In collaboration with researchers at our British associate Nexeon Ltd., we are stepping up work on silicon-based materials for high-performance batteries.

One focus of our research focus is on biotechnology processes and bioengineered products. Our third-generation ESETEC® strains have enabled us, for the first time, to selectively trigger the release of correctly folded pharmaceutical proteins from a bacterial cell. We are developing just such a process for the production of nucleic acids – an important class of biopharmaceuticals. We are using our biotechnological production platforms to develop new manufacturing processes for functional additives to supply the fast-growing market for alternative, non-animal food proteins. Our modern systems biology has made possible the sustainable, cost-effective manufacture of the amino acid L-cysteine. Taking that as our basis, we are working with partners to develop fermentation methods to make naturally occurring compounds containing sulfur for use as food and food additives.

Selected Divisional Research Projects

Sustainability in general and biodegradability in particular continue to grow in importance. Our researchers at Burghausen are working on silicone systems that feature materials or organic components that are biodegradable. At the Shanghai technical center, WACKER SILICONES is researching thermal interface materials, especially those for the electronics industry. During the reporting year, one point of focus at the Burghausen technical center was on fiber composites for thermally stable refractory components. Made from carbon or glass fibers and silicone resins, these are used in lightweight construction. WACKER SILICONES developed printable elastic electrode materials for sensor applications. Our resin-filled, optically clear silicone systems for optical bonding enhance the functionality of display screens.

We are continuing our research into UV-activated silicones, whose use is more energy-efficient than thermal curing. At the research site in Ann Arbor, Michigan (USA), we are working on silicone systems for the selective release of active ingredients in wound care. We are using molecule simulations and big-data analyses to digitalize our research activities. We employ innovation methods like Design Thinking in inter-disciplinary High Innovation ImpacT ("HIT") teams to assess whether our development projects can be implemented and marketed. In the reporting year, the HIT teams concentrated on hygiene and the pandemic.

At WACKER POLYMERS, research remains centered on sustainable functional polymer binders for use in consumer goods and the construction industry. We are continuously improving products that are free of volatile organic compounds (VOCs) and that enable the use of sustainable formulation components in a wide variety of materials. A particular 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, which our customers use to manufacture enhanced dispersion paints and high-performance composite materials. We introduced sustainable binders for adhesives and for cementitious building materials.

We are supporting the Karlsruhe Institute of Technology (KIT) in building up an innovation platform for sustainable construction. Called "ChangeLab! WACKER/KIT Innovation Platform for Pioneering Sustainable Construction," this joint project is aimed both at KIT students and at architects, engineers and construction experts. We want to forge stronger ties between research work and the construction sector's supply-chain stages by fostering the exchange of ideas and conceptual approaches in the fields of materials development and sustainable construction.

» https://changelab.exchange

At WACKER BIOSOLUTIONS, research remains geared to strengthening the division's expertise in biotechnology and microbiology. Once the Covid-19 vaccine candidate CVnCoV developed by biopharmaceutical company CureVac N.V. has been approved, we will manufacture it at our Amsterdam site in line with GMP (Good Manufacturing Practice). We are continuously updating and improving our fermentation processes for the manufacture of high-quality biobased and natural ingredients for food and dietary supplements. The ESETEC® microbial production platform, which we are constantly evolving, allows our pharmaceutical customers to manufacture active proteins that are not easily accessible. In the reporting period, we developed manufacturing processes for live bacteria that our customers use as pharmaceutical actives. We are developing applications for our versatile cyclodextrins in the food, agriculture and pharmaceutical industries.

In the field of solar modules, huge technological progress is being made at every stage of the supply chain, and this trend is reflected in continually rising cell efficiencies. 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 that now exceed 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 23–25 percent. High-performance segments like these require WACKER-quality polysilicon. In

the reporting year, we joined the Ultra Low-Carbon Solar Alliance (ULCSA). The international members of this US-based organization are committed to the deployment of photovoltaic components with a low carbon footprint.

» https://ultralowcarbonsolar.org/

Employees

Slight Decrease in Workforce

WACKER's workforce decreased by 2.6 percent in 2020. German sites accounted for 70.7 percent of WACKER's employees and international sites for 29.3 percent.

To mitigate the economic effects of the coronavirus pandemic, WACKER introduced short-time work in several production-related and administrative units in Germany in the second quarter of the reporting year. At certain times between April and December 2020, almost 2,000 employees were working reduced hours at the Munich, Burghausen, Stetten and Nünchritz sites.

In October 2020, as part of WACKER's Shape the Future efficiency program, the company and employee representatives reached an agreement on the framework for the planned job cuts. By the end of 2022, some 1,200 jobs are to be eliminated groupwide in administrative units and in the non-operational functions of the business divisions. Around 1,000 of the job cuts are planned for Germany. The reduction in Germany is to be implemented solely through voluntary and socially responsible measures, such as phased early retirement arrangements and severance agreements. Forced layoffs are explicitly excluded in Germany under this project.

As a manufacturing company, WACKER has a large contingent of industrial workers (47.9 percent), roughly one-eighth (12.1 percent) of whom are women.

B.39 Number of Employees as of December 31

	2020	2019	2018	2017	2016
Germany	**10,096**	10,356	10,291	9,984	9,775
International	**4,187**	4,302	4,251	3,827	3,673
Group	14,283	14,658	14,542	13,811	13,448

At €1,329.4 million, personnel expenses were higher versus the previous year (2019: €1,253.8 million).

B.40 Personnel Expenses

€ million	2020	2019	2018	2017	2016
Personnel expenses	**1,329.4**	1,253.8	1,231.5	1,198.0	1,101.2

They included outlays for social benefits and the company pension plan totaling €288.7 million (2019: €263.2 million). As stipulated in the collective-bargaining agreement reached between the IG BCE labor union and chemical employers in November 2019, the standard pay scale in 2020 rose by the agreed one-off payment for the first six months of the year and by the first stage of the scale increase, which took effect on July 1, 2020.

A WACKER company pension is an important compensation component. It is provided at most of our German and international sites. In Germany, WACKER employees receive a pension through Wacker Chemie AG's pension fund (Pensionskasse der Wacker Chemie VVaG). Employees can supplement their company pensions by making their own additional contributions. As provided for in collective bargaining 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. The fund has around 17,800 members and provides pension payments to some 8,800 retirees. The average pension paid in the reporting period was around €675 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. Given prevailing low interest rates, we made a special payment of €73.4 million to WACKER's pension fund to ensure sufficient cover for the pension obligations. WACKER is working hard to reform its company pension system with a view to reducing the burden on its earnings, net assets and financial position.

Procurement and Logistics (unaudited section)

In 2020, WACKER's procurement volume fell to €2.8 billion (2019: €3.4 billion). The main reasons were not only markedly lower raw-material and energy prices, but also a general reduction in procurement activities due to lower capital expenditures and to the Shape the Future cost-saving program. At 61 percent, the procurement rate – raw materials, services and other materials as a percentage of sales – was well below the prior-year level (2019: 69 percent). The number of suppliers, at around 11,000, was on par with the prior year.

The Group spent at €1.7 billion to procure energy and raw materials, which was down by around 11 percent (2019: €1.9 billion). Most of this decline stemmed from lower prices, with the rest being due to reduced volumes.

B.41 Procurement Volume (Including Procurement for Capital Expenditures)

€ million	2020	2019	2018	2017	2016
Procurement volume	**2,847**	3,414	3,603	3,144	2,890

Production (unaudited section)

Production output rose by a low-single-digit percentage year over year. Production costs, on the other hand, fell slightly.

B.42 Plant Utilization in 2020

%	Plant Utilization Rate
WACKER SILICONES	**95**
WACKER POLYMERS	**87**
WACKER POLYSILICON	**85**

Capital expenditures for 2020 amounted to €224.4 million (2019: €379.5 million). Maintenance costs totaled around €386.2 million.

B.43 Key Start-Ups

Location	Projects	Year
Burghausen, Germany	Nitrogen production capacity extension	2020
Cologne, Germany	New medium-voltage power supply	2020
Nanjing, China	Construction of storage tanks for dispersions	2020
Ulsan, South Korea	Dispersion reactor	2020

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 2020, we handled 500 projects, involving savings spanning all cost types. Priorities were labor productivity and specific energy consumption. As a result of the pandemic, the WOS Academy conducted far fewer courses and training sessions in 2020.

Sales and Marketing (unaudited section)

In 2020, WACKER's sales trend was influenced by the global spread of the coronavirus pandemic. WACKER SILICONES reported the largest drop in sales at 9 percent, while WACKER POLYMERS posted only a marginal decline and WACKER BIOSOLUTIONS and WACKER POLYSILICON delivered slight increases. Prices were lower year over year in all areas, while at WACKER SILICONES volumes contracted as well. On the other hand, WACKER POLYMERS, WACKER BIOSOLUTIONS and WACKER POLYSILICON generated volume growth.

WACKER's chemical business is geared to three customer groups: key accounts, regional customers and distributors. WACKER currently has 37 key accounts, through which it generated around 23 percent of its total chemical sales in 2020. More than 50 percent of sales stemmed from about 5,000 active relationships with other customers. Our distributors account for some 22 percent of sales.

Marketing communication plays a central role in supporting branding and the sale of products. In 2020, WACKER spent €7.5 million on marketing communication (2019: €14.8 million).

Pandemic Rules Out Most In-Person Tradeshows

Presentations at international tradeshows more or less ground to a halt in 2020. The number of tradeshows slumped to 32 (2019: 114), of which honored eleven could be attended in person. 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 2020 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 has its headquarters 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. The company 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 the company's key stakeholders, especially with 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	2020	2019
Sales	**3,579.1**	3,779.0
Changes in inventories	**–65.3**	–13.3
Other capitalized self-constructed assets	**32.7**	37.1
Operating performance	**3,546.5**	3,802.8
Other operating income	**183.5**	216.0
Cost of materials	**–1,819.6**	–2,070.1
Personnel expenses	**–1,067.5**	–989.7
Depreciation/amortization and impairments	**–169.6**	–224.7
Other operating expenses	**–722.8**	–791.0
Operating result	**–49.5**	–56.7
Result from investments in subsidiaries, joint ventures and associates (incl. (reversals of) impairment losses)	**63.8**	107.6
Net interest result	**–92.4**	–121.8
Other financial result	**–31.6**	–1.4
Financial result	**–60.2**	–15.6
Income before income taxes	**–109.7**	–72.3
Income taxes	**8.2**	39.3
Net result	**–101.5**	–33.0
EBITDA[1]	**120.1**	168.0

[1] EBITDA is the operating result before depreciation/amortization and (reversals of) impairments of fixed assets.

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

Wacker Chemie AG's earnings were influenced by the effects of the coronavirus pandemic. Amid a decline in sales of 5 percent, the operating result was on par with the previous year. The financial result was substantially lower due to reduced dividend income. At year-end, Wacker Chemie AG posted a net loss of €–101.5 million. That was €68.5 million less than a year earlier.

Sales decreased from €3.78 billion to €3.58 billion, a drop of 5 percent. This contraction was largely due to the economic impact of the coronavirus pandemic. Sales were lower across almost all divisions. At WACKER SILICONES, sales of €1.70 billion were down 8 percent (2019: €1.84 billion). WACKER POLYMERS' sales totaled €780.1 million (2019: €805.6 million), a 3 percent decline. Sales at WACKER BIOSOLUTIONS fell €6.9 million to €145.6 million (2019: €152.5 million). On the other hand, WACKER POLYSILICON posted slightly higher sales of €794.2 million (2019: €783.1 million).

The cost of materials decreased by €250.5 million in 2020 to €1.82 billion (2019: €2.07 billion), mainly due to lower procurement prices and to reduced volumes for commodities and strategic raw materials. In 2020, Wacker Chemie AG benefited from lower prices for ethylene, methanol and vinyl acetate monomer. Prices for silicon metal, another raw material, also trended downward at times. Energy costs were also slightly lower. Overall, the material-to-sales ratio decreased to 51.3 percent (2019: 54.4 percent).

Personnel expenses increased 8 percent to €1,067.5 million (2019: €989.7 million). This rise stems from collective bargaining agreements and from higher variable-compensation components that will be paid out in 2021. Expenses for pension agreements concluded as part of the Shape the Future restructuring program were also higher. As in the prior year, personnel expenses included non-recurring expenses to secure the future financing of the pension fund (Pensionskasse der Wacker Chemie VVaG). As of December 31, 2020, Wacker Chemie AG had 9,823 employees (Dec. 31, 2019: 10,093). The employee-expense ratio rose to 30.1 percent (2019: 26.0 percent).

Depreciation and amortization decreased again, falling to €169.6 million (2019: €224.7 million), a drop of 25 percent.

The other operating result (other operating income less other operating expenses) improved by €35.7 million to €–539.3 million (2019: €–575.0 million). That was mainly due to the reduction in other operating expenses, achieved through cost savings. On the other hand, restructuring charges of €48.9 million were posted in connection with the Shape the Future project. The prior-year figure had contained income of €112.5 million in insurance compensation for damage incurred following the incident at the Charleston site (USA) 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 other contractor work were lower in 2020. The foreign currency result rose by €40.1 million to €27.1 million (2019: €–13.0 million).

The operating result was €–49.5 million (2019: €–56.7 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 €63.8 million was below the prior-year figure of €107.6 million. In 2020, dividend payments from subsidiaries decreased markedly. Dividend income from the investment in Siltronic AG was also lower.

The net interest result improved to €–92.4 million (2019: €–121.8 million), reflecting a year-over-year decline in discount rates for pension obligations. Interest expenses for pensions declined accordingly, to €85.4 million (2019: €93.8 million). The prior year's interest expenses had also included reimbursements to subsidiaries.

The income tax item was impacted by the loss posted in the reporting year. Wacker Chemie AG – including those German subsidiaries with which it has profit-and-loss transfer agreements – recognized tax income of €8.2 million in the reporting year. This income consisted mainly of refunds for previous years. In the prior year, the company had recognized tax income of €39.3 million.

The fiscal year ended with a net loss of €–101.5 million. Retained profit for 2020 – adjusted for the loss carried forward from a year earlier and the €24.8 million in dividend payments – totaled €1.20 billion (2019: €1.32 billion).

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

Wacker Chemie AG's total assets increased 10 percent year over year to €6.04 billion (Dec. 31, 2019: €5.48 billion). The individual balance-sheet items did not develop uniformly.

B.45 Statement of Financial Position

€ million	2020	2019
Assets		
Intangible assets	5.5	8.8
Property, plant and equipment	982.3	992.8
Financial assets	2,665.1	2,704.8
Fixed assets	3,652.9	3,706.4
Inventories	562.6	606.7
Trade receivables	346.8	365.5
Other receivables and other assets	322.5	350.2
Receivables and other assets	669.3	715.7
Securities and fixed-term deposits	680.6	107.7
Cash on hand and bank deposits	463.4	339.4
Current assets	2,375.9	1,769.5
Prepaid expenses	6.7	4.7
Total assets	6,035.5	5,480.6
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	1,198.6	1,324.9
Equity	2,604.4	2,730.7
Provisions for pensions and similar obligations	980.0	912.9
Other provisions	473.0	326.3
Provisions	1,453.0	1,239.2
Financing liabilities	1,507.3	1,061.1
Trade payables	264.2	212.6
Other liabilities	189.1	218.3
Liabilities	1,960.6	1,492.0
Deferred income	17.5	18.7
Total equity and liabilities	6,035.5	5,480.6

At €3.65 billion, fixed assets for 2020 were lower than the year before (2019: €3.71 billion). Property, plant and equipment was also down slightly year over year. Depreciation and amortization of €164.0 million (Dec. 31, 2019: €218.0 million) exceeded investment spending of €155.3 million (Dec. 31, 2019: €208.3 million). Financial assets also decreased, from €2.70 billion to €2.67 billion. This decline was due to the scheduled repayment of a loan issued to Dow Siloxanes (Zhangjiagang), Co. Ltd., China. Overall, fixed assets accounted for 61 percent of total assets, compared with 68 percent in the prior year.

Inventories decreased year over year. They amounted to €562.6 million (Dec. 31, 2019: €606.7 million), down 7 percent. This decline was due both to lower raw-material costs and to increased volumes, especially at WACKER POLYSILICON. Trade receivables were also lower year over year, falling 5 percent to €346.8 million as of the reporting date (Dec. 31, 2019: €365.5 million).

Other receivables and other assets amounted to €322.5 million as of the reporting date (Dec. 31, 2019: €350.2 million), down 8 percent. They included receivables from affiliated companies in the amount of €246.8 million (Dec. 31, 2019: €271.4 million).

As of December 31, 2020, Wacker Chemie AG held €680.6 million in securities and fixed-term deposits with maturities of over three months (Dec. 31, 2019: €107.7 million). Wacker Chemie AG's bank deposits amounted to €463.4 million as of December 31, 2020 (Dec. 31, 2019: €339.4 million).

Equity came to €2.60 billion as of the reporting date (Dec. 31, 2019: €2.73 billion), yielding an equity ratio of 43.2 percent (Dec. 31, 2019: 49.8 percent). At Wacker Chemie AG's annual shareholders' meeting, a resolution was passed to distribute a dividend of €24.8 million from the retained profit for 2019. The remaining retained profit of €1,300.1 million was carried forward. As of December 31, 2020, retained profit totaled €1,198.6 million and mainly comprised the current net result of €–101.5 million for 2020 and the non-distributed profit carried forward from the preceding year.

Provisions for pensions and similar obligations rose €67.1 million year over year to €980.0 million (Dec. 31, 2019: €912.9 million). Other provisions – primarily comprising those for personnel, taxes and environmental protection – also increased in 2020, amounting to €473.0 million (Dec. 31, 2019: €326.3 million). This was due, above all, to the rise of €149.8 million in provisions for personnel. A provision of €48.0 million was recognized in connection with the Shape the Future program. The phased early retirement agreements offered under this program resulted in provisions for top-ups in the amount of €23.9 million in 2020. Provisions accounted for 24 percent of total equity and liabilities (Dec. 31, 2019: 23 percent).

As of the reporting date, financial liabilities were €1,507.3 million (Dec. 31, 2019: €1,061.1 million), up 42 percent. Bank loans amounted to €1,057.6 million (Dec. 31, 2019: €770.3 million). Liabilities due to affiliated companies grew by €158.4 million to €444.4 million as of the reporting date (Dec. 31, 2019: €286.0 million). The overall share of financial liabilities in total equity and liabilities increased to 25 percent (Dec. 31, 2019: 19 percent).

Trade payables grew €51.6 million year over year to €264.2 million (Dec. 31, 2019: €212.6 million). As of the reporting date, other liabilities amounted to €189.1 million (Dec. 31, 2019: €218.3 million). The decline in liabilities due to affiliated companies was the main factor in this decrease. They fell €46.6 million to €50.2 million (Dec. 31, 2019: €96.8 million).

Deferred income came to €17.5 million as of the reporting date (Dec. 31, 2019: €18.7 million). It mainly comprised a payment by Siltronic AG to Wacker Chemie AG for the transfer of employees.

Cash flow from operating activities increased to €351.9 million (2019: €96.9 million), lifted primarily by cost savings and a reduction in the cost of materials. The trend in working capital also improved cash flow from operating activities.

Investment spending on property, plant and equipment was substantially lower in 2020. Thus, net cash flow – defined as the sum of cash flow from operating activities and cash flow from long-term investing activities (excluding securities and fixed-term deposits) – improved in the reporting year, rising to €222.8 million (2019: €–139.0 million). Free funds were invested in securities and fixed-term deposits, causing the cash outflow for investing activities to rise to €703.2 million (2019: €298.0 million). Cash flow from investing activities also included the repayment of a loan issued to Dow Siloxanes (Zhangjiagang), Co. Ltd., China.

Cash inflows from financing activities amounted to €475.3 million (2019: €273.9 million). In addition to funds received from US subsidiaries on the basis of existing cash-pooling arrangements, bank loans of €287.2 million were raised on balance in 2020 (2019: €186.4 million). The dividend paid for 2019 led to a cash outflow of €–24.8 million.

Liquidity – defined as the sum of the securities in current assets and of cash on hand and bank deposits – amounted to €1,144.0 million as of December 31, 2020, and was higher mainly because of the increase in securities and fixed-term deposits. A year earlier, liquidity had amounted to €447.1 million. The balance of liquidity and liabilities to financial institutions resulted in net financial receivables of €86.4 million. A year earlier, the company had net financial debt of €–323.2 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 holdings is affected in particular by the risks specified in the Risk Management Report. Through our subsidiaries and investments, 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 and energy costs, personnel expenses and exchange rates. For 2021, we anticipate a euro exchange rate of US$ 1.20. The expectations for Wacker Chemie AG's business performance in the year ahead are essentially the same as those for the WACKER Group, which are explained in full in the Group's Outlook section.

At present, it is not possible to reliably predict the future effects of the coronavirus on economic growth. We currently assume that sales will edge up year over year. For Wacker Chemie AG, we expect net income to be slightly positive before accounting for potential income from the sale of our stake in Siltronic.

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 2020.

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 the statutory 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.

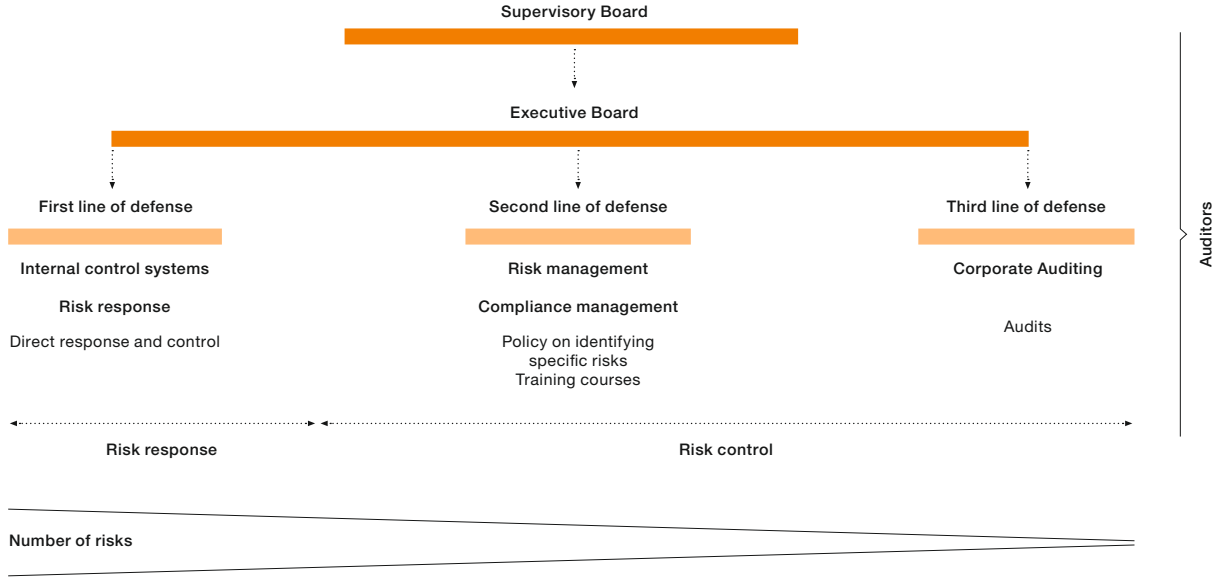
WACKER follows the Three Lines of Defense model to effectively manage corporate risks and ensure compliance with legal provisions and the ethical principles of corporate management.

» See Figure B.46 on page 87

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.

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 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 locally. 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.

The Supervisory Board is also integrated into the internal control system through its Audit Committee. In particular,

B.47 Risk Management System

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

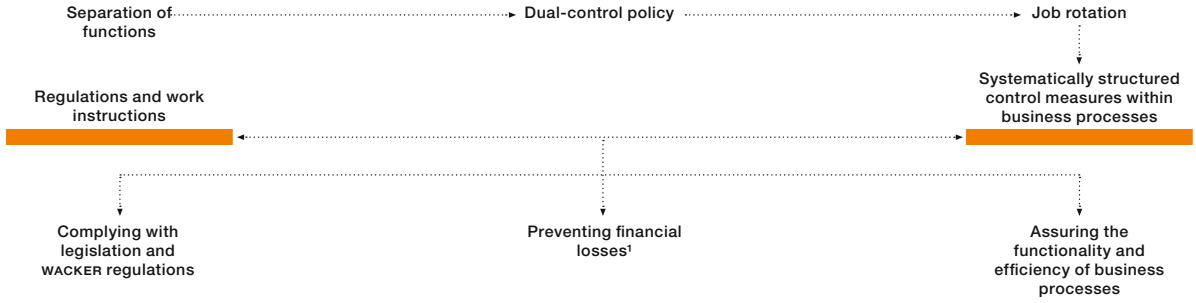
This groupwide system draws on existing organizational and reporting structures, supplemented by additional elements:

- 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 2020, 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 2021.

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 2021

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

Evaluation and Risk Assessment: Although economists forecast a gradual global upswing in 2021 following the severe recession amid the coronavirus pandemic, they do not expect pre-crisis levels to be reached in the current year. Instead, they predict a long, regionally uneven recovery, whose outcome remains uncertain in light of the as-yet uncontrolled pandemic. Ongoing trade conflicts are another negative factor.

Due to the continuing risks, we consider it possible that the global economy will fall short of current expectations for 2021. Should global economic activity prove weaker than currently anticipated, that would potentially have a high 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 in those lines. But we can only partially balance out the type of sudden and strong fluctuations in demand being caused by the coronavirus crisis.

Evaluation and Risk Assessment: We expect the risk of overcapacity to remain basically unchanged for our products in 2021. At WACKER POLYMERS, we anticipate overcapacity for dispersions in Asia. Despite this, we expect plant utilization to be high. WACKER SILICONES assumes the supply and demand situation will normalize during 2021, following the pandemic-induced downturn. As a result, plant utilization is likely to climb. The situation could vary, though, depending on the end market and sales region, and on the current status of the pandemic. We expect to see a volatile, though basically unchanged, price level for standard silicones and slightly higher price pressure on 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. Our current projections are based on the assumption that the pandemic will be brought under control in the course of 2021. Should that not be the case, such a trend would have a medium impact on the Group's earnings trend.

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. Overcapacity could put pressure on 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 2021. 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 medium 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 raw-material and energy 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. In addition, 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.

In 2020, WACKER benefited from lower raw-material prices amid the pandemic-induced global recession. For 2021, average prices of our key raw materials should be significantly higher than last year, with the cost of natural gas and electricity probably remaining stable. Our planning is based on this scenario. Any possible major price increases 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 the assumption of 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 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 substantially higher in 2021. This is due to capacity-expansion projects for our chemical segments. 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. Similarly, we currently view the risk of a negative trend in Siltronic AG's market capitalization to be unlikely. We concluded an irrevocable undertaking with semiconductor manufacturer GlobalWafers to tender our stake in Siltronic at an offer price of €145 per share as part of a voluntary takeover bid for Siltronic by GlobalWafers. Should, contrary to expectations, the takeover fail to materialize, Siltronic's market capitalization could come under pressure. We estimate that low-probability investment risks, taken as a whole, could 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 protection against explosion damage. 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.

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. We transact cash investments and derivative dealings with banks that are usually above a defined minimum rating.

Evaluation and Risk Assessment: We consider it unlikely that credit risks stemming from customer business will materialize. We consider our risk concentration with 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 arise mainly 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, we hedge the corresponding interest rates.

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. At the present time, we consider it possible that exchange-rate and interest-rate changes in 2021 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 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 €1,338.0 million as of the reporting date. At the same time, there were unused lines of credit with terms of over one year totaling €690 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 financing 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 present value of future cash flows).

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 2020, WACKER made an additional, special payment of €73.4 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 very low in recent years. The rate of return will probably be insufficient to fulfill pension obligations in the long term. It is highly probable 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.

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 through centralized contract management and through 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 launching 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 through 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 CO_2-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 has dropped in the last few years. As of this year, Phase 4 of the European emissions trading regulations will take effect to accelerate the reduction of the emission ceiling in the European Union. This could lead to higher prices or lower allocations of emission allowances. In addition, we consider it possible that 2021 will see further amendments to statutory provisions on energy supply. The impact of such amendments on WACKER's earnings would probably be low in the current year, but could increase substantially in subsequent years.

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 solar-grade 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 USA-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 solar-grade polysilicon from the USA). Our aim in doing so is to reduce or end Chinese anti-dumping and anti-subsidy tariffs and other punitive tariffs on WACKER's US-made solar-grade 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 customers for semiconductor applications and will be able to complete further qualifications for semiconductor customers in 2021.

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. As China has not yet lifted its tariffs on US-made solar-grade polysilicon, WACKER is still not able to export its Charleston-made solar-grade polysilicon from the USA to China at competitive terms. Given the ongoing 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 2021 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. Predefined processes and workflows are in place for emergencies (business continuity management).

We minimize project-related IT risks by applying uniform project/quality management methods. These ensure that changes are integrated into our system landscape in a controlled manner and in accordance with defined processes.

During the risk management process, we log and evaluate any operations-related risks that arise and take appropriate countermeasures. In 2020, Corporate Auditing analyzed the risk management process and confirmed the accuracy and completeness of processes and structures used at IT and for digitalization. We deploy state-of-the-art hardware and software solutions to counter network downtime, data loss, data manipulation and unauthorized access to our network. In 2020, we set up a Cyber Defense Center (CDC). It continually monitors the security of our IT landscape and applications, and ensures that any deficits found are rectified in a timely manner. 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 always keep up to date. 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 courses on IT security ensure that our employees have the necessary skills to enhance information security at the company. In addition, we regularly conduct comprehensive penetration tests and audits at domestic and international sites. We continually observe and evaluate the techniques of potential attackers and, where necessary, realign our defense strategies accordingly.

Evaluation and Risk Assessment: A long-term failure of IT systems or a major loss of data could considerably impair WACKER's operations. As in previous years, there were a large number of attempted attacks on our IT systems and infrastructure in 2020. It cannot be ruled out that such attacks could succeed in certain cases despite the precautions we have taken. We thus consider such events possible. If, as a result of such an event, 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, attractive 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). WACKER's succession planning process 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 2021. Should these risks materialize, the impact on Group earnings would probably be low.

External Risks

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. The current coronavirus pandemic is clear proof of this. The novel coronavirus and government measures introduced to contain the pandemic and protect public health hugely impaired the global economy and led to a severe recession in 2020. Numbers of infections are still very high in many countries. It is currently not possible to estimate whether, and how quickly, vaccinations will help effectively stop the pandemic in the long term. Thanks to our detailed action plans and our global network of production sites and sales offices, we succeeded in limiting the impact of COVID-19 on our company in 2020. As the situation continues to evolve very fast, however, we cannot reliably estimate the outbreak's future effects at the moment. If the pandemic cannot be curbed significantly, there is a high probability that WACKER could once again be subject this year to risks from the coronavirus pandemic and to measures taken by the authorities. If such a scenario occurs, it could have a high impact on WACKER's earnings.

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).

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 recovery in global GDP growth projected for 2021, 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.

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 CO_2 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. These enable effective thermal management, thus ensuring 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 and vaccines. Through its Amsterdam site, acquired in 2018, the division has considerably expanded its capacities and skills in this field. 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 ranging from food supplements that promote cardiovascular health, to improved foaming properties in barista toppings.

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

In order to make the most of our divisions' opportunities for further growth, we will continue to focus on meeting growth in customer demand mainly through the cost-effective expansion of existing plants, and on bolstering our downstream-product capacity, particularly for specialties. While the capital expenditures required for this will climb substantially in 2021, they will once again remain below the level of depreciation/amortization. The focus will remain on expanding our capacity for silicone and polymer products. At our Nünchritz site, we are building a new production line for silane-terminated polymers. These silicone specialties are used in high-quality adhesives, for example. We are currently building new facilities for dispersions and dispersible polymer powders at Nanjing (China) to supply 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 Shape the Future program. By making our organizational structure leaner and more efficient, we plan to achieve significant savings in personnel expenses and non-personnel 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.

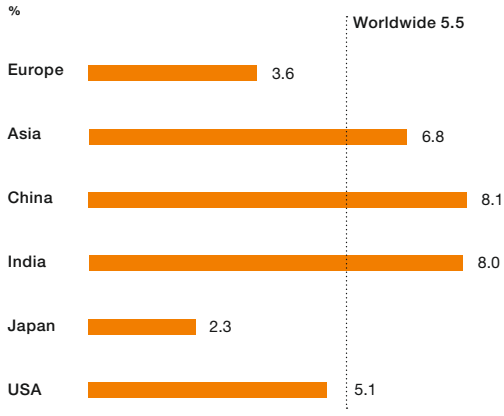
As of the publication date of this report, the Executive Board does not see any individual or aggregate risk that could seriously endanger WACKER's future. The risks, particularly those stemming from the coronavirus pandemic, indeed remain high. But, thanks to our extensive product portfolio and firm 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

The coronavirus pandemic has cast a long shadow over the world economy. The outlook for 2021 remains uncertain. On the positive side, economic analysts expect global GDP (gross domestic product) to pick up, thanks to vaccination campaigns, concerted health-policy measures and government funding. But any delays in providing vaccines or difficulties in containing further outbreaks could dampen global economic activity again. The Organisation for Economic Cooperation and Development (OECD) anticipates the strongest upturn will be in Asian economies. In many other countries, GDP is unlikely to reach 2019 levels until the end of 2021. Downside risks come from not only the pandemic, but also geopolitical turbulence, such as the still-unresolved USA-China trade conflict and the consequences of Brexit.

B.50 GDP Trends in 2021



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

Sector-Specific Conditions

In 2021, economic trends in the industries relevant to our business will remain under the cloud of the coronavirus pandemic. Varying rates of infection could lead to uneven trends across market segments and regions. But we expect our key industrial sectors to grow again in the medium term.

Chemical Industry Likely to Grow in 2021

After a difficult year for the German chemical and pharmaceutical industry, the country's Chemical Industry Association (VCI) anticipates that production will increase by 1.5 percent and sales by 2.5 percent in 2021. On the other hand, the VCI expects employment to edge down 1 percent due to the sector's structural transition, which the pandemic is accelerating.

Given the uncertainties surrounding the future course of the pandemic, WACKER's chemical divisions face significant risks. Nonetheless, the strength of our broad product portfolio has already proved itself in the present crisis. In 2021, we expect to continue benefiting from this strength, for example in the medical technology sector, in label manufacturing, and as a producer of highly pure silanes for the electronics industry. Moreover, long-term trends remain intact and will accelerate in some cases. In the medium-term, the BRICS countries and other emerging economies will continue to offer growth opportunities. Rising affluence in emerging economies will bolster our sales in countries such as China and India, and 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, industrial manufacturing processes. In these areas, WACKER is generating above-average growth, including in advanced economies.

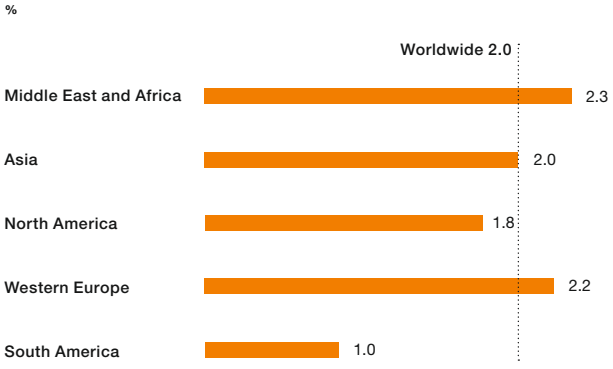
Construction Industry Recovers

According to market research institute B+L Marktdaten GmbH, the construction industry is set to grow in the medium term after its decline in 2020. On average, global construction volume is expected to rise by about 2 percent annually through 2023.

Similarly, WACKER POLYMERS forecasts an upward trend in 2021, driven by renovation, energy efficiency and sustainability. Around the world, the many government incentives, such as the European Green Deal, are likely to create additional momentum for the construction industry.

At WACKER SILICONES, the percentage of value-added specialty products is expected to grow further in many 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. There are also good opportunities for our "eco" product line, with its focus on sustainability.

B.51 Construction-Industry Growth Rates by Region, 2021–2023



Source: B+L Marktdaten GmbH, November 2020

Upswing in the Electrical and Electronics Sector

The German Electrical and Electronic Manufacturers' Association (ZVEI) forecasts a return to growth in 2021. It expects global market volumes to expand by about 6 percent. The rebound will be driven by both emerging and advanced economies.

In the automotive industry, WACKER continues to see generally good growth prospects, fueled for example by the increasing use of driver-assistance systems, sensors and optical displays, and by the growing importance of electromobility. Moreover, a catch-up phase in automotive sales versus 2020 may add momentum.

B.52 WACKER's Key Customer Sectors

Sectors	Trend in 2020	Trend in 2021
Chemicals	Decline	Growth
Construction	Decline	Growth
Energy and electrical	Decline	Growth
Photovoltaics	Growth	Growth

Further Increase in Installed Photovoltaic Capacity Likely in 2021

Economic conditions for photovoltaics (PV) will remain dynamic and challenging in 2021. On the one hand, intense competition is creating market uncertainty. On the other, levelized costs for solar power continue to drop, making PV more competitive relative to other energy sources. Solar energy is also an important component in achieving global climate-protection targets, since it significantly reduces specific carbon-dioxide emissions compared with fossil fuels. Both the cost effectiveness of PV and the political goal of keeping global warming below 2°C are opening up new markets. The PV market is expected to continue growing. China will remain the world's largest and most important market in 2021. Other markets adding large amounts of capacity are the USA, European countries, Japan and India. Highly promising growth regions include 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 150 and 180 gigawatts (GW) in 2021.

B.53 Photovoltaic-Market Trend in 2021

	Installation of New PV Capacity (MW)		
	2021		2020
	Lower Range	Upper Range	
Germany	4,000	6,000	4,800
Spain	4,000	5,000	2,600
Rest of Europe	14,000	17,000	13,000
USA	22,000	24,000	19,000
Japan	7,000	8,000	8,200
China	50,000	60,000	48,200
India	4,000	7,000	3,500
Other regions	45,000	53,000	40,700
Total	150,000	180,000	140,000

Sources: PV market in 2021: Solar Energy Industries Association (SEIA), market studies, WACKER's own market research; PV market in 2020: Germany's Federal Network Agency, Solar Energy Industries Association (SEIA), China National Energy Agency, Ministry of New and Renewable Energy, Bridge to India, market studies, WACKER's own market research
(Table B.53 unaudited)

The WACKER Group's Prospects

Based on our assumptions, we expect the global economy to grow in 2021. The strength of this growth will chiefly depend on how effectively the pandemic is contained. While most momentum will come from Asia, we also anticipate growth in the USA and Europe.

Investment Spending and Production

Like last year, our capital expenditures in 2021 will concentrate on production plants for intermediates and downstream products. At around €350 million, capital expenditures will be markedly above the year-earlier level, but below depreciation/amortization. The investment focus is WACKER SILICONES, which will account for more than 40 percent. The division's investment projects include a new plant for hybrid polymers in Nünchritz. In the course of the year, WACKER POLYMERS will continue expanding its production facilities in Nanjing.

B.54 Facility Start-Ups in 2021/2022

Location	Projects	Start-Up
Burghausen	Plant for making specialty silicones for consumer products	2021
Burghausen	New polymer capacity	2021
Burghausen	Capacity expansion of silicone-base facility	2021
Burghausen	Capacity expansion for vinyl silicones	2021
Adrian	Multifunctional emulsion plant	2022
Amsterdam	New fermenter	2022
Burghausen	Liquid-silicone-rubber production plant	2022
Nanjing	Dispersion reactor	2022
Nünchritz	Plant for hybrid polymers	2022

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, which save energy during cement production. They also improve the cement's storage stability and increase the performance and durability of cement products. Another focus is the development of new fiber composites. Made from carbon or glass fiber and silicone resins, these are mainly used in thermally stable or refractory components for lightweight construction. We are seeing growing demand for specialty silanes for microelectronics as well as for silicones made using renewable raw materials. Such products are increasingly found in cosmetics and personal care, in release coatings, in surface and fabric care, and in construction. In our electronics focus field, we developed not only printable elastic electrode materials made from silicone for use in sensors, but also resin-filled, optically transparent silicone systems for optical bonding applications. In electromobility, thermally conductive silicone elastomers are increasingly gaining ground. We are currently working on low-density and surface-modified formulations. Such products contribute significantly to cooling and thus to the thermal management of electrical storage modules and electronic components. Our electroactive silicone laminates support the development of innovative touchscreens with tactile feedback functions for the automotive, entertainment and medical industries.

WACKER POLYMERS continues to intensify its activities in polymeric binders for sophisticated construction, coating and bonding applications. A key trend here is rising customer demand for sustainable, environmentally compatible solutions. WACKER POLYMERS is actively seizing these market opportunities and developing corresponding product lines. For instance, the division is able to supply – on a commercial scale – a line of dispersions based on vinyl acetate-ethylene copolymers that incorporate renewable raw materials, such as biobased acetic acid. We use mass balance accounting to help reduce CO_2 emissions. The portfolio also includes dispersions for preservative-free applications. Our biocide-free powder paints enable paint quantities to be precisely measured, reducing material

consumption and surpluses. Moreover, in tile laying, we are helping to cut cement consumption and thus reduce CO_2 emissions through the switch from thick-bed to thin-bed techniques.

The pharma and food markets offer growth potential for WACKER BIOSOLUTIONS. The pharma market is steadily shifting toward bioengineered medicines. As a CDMO (contract development and manufacturing organization) for biopharmaceuticals, we are meeting demand growth through our sites in Jena, Halle and Amsterdam. At the Amsterdam site, where production includes vaccines and live microbial products (LMPS), we are investing in new manufacturing facilities. These measures will enable us, for example, to produce new classes of actives, such as the mRNA-based vaccines being used to combat SARS-CoV-2. In the food market, we are supporting the healthy-eating trend. Studies show that our HTEssence© antioxidant promotes heart health, while our cyclodextrins are used in numerous food applications, for instance increasing the bioavailability of curcumin and improving foaming properties in barista toppings.

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 thus generate more electricity from the same amount of sunlight. WACKER holds 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 the semiconductor industry.

Outlook for 2021

WACKER's main planning assumptions relate to raw-material and energy costs, personnel expenses and exchange rates. For 2021, we anticipate a euro exchange rate of US$1.20 (2020: 1.15). Average prices of our key raw materials should be significantly higher than last year, with the cost of natural gas and electricity remaining stable. The majority of our raw-material and energy supplies are secured for 2021. Due to our Shape the Future program, we expect savings in non-personnel costs and personnel expenses. On the other hand, our guidance also includes current expenses for phased early retirement. If the acquisition of Siltronic shares by GlobalWafers Co. Ltd. is completed in 2021, WACKER's EBITDA will increase by €780 million. Net cash flow will then rise by €1.3 billion, the total proceeds of the sale. Net financial debt will decrease by that amount. These non-recurring effects are not accounted for in the outlook for 2021.

Performance Indicators and Value-Based Management

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

Group Sales in 2021 to Benefit from Volume Growth

In 2021, WACKER expects to see volume growth and positive product-mix effects at its chemical divisions. Average prices in several product segments are likely to be somewhat lower than last year. In our polysilicon business, we anticipate slightly higher volumes and a better product mix. For the year as a whole, we do not expect a decline in polysilicon prices versus last year. Overall, Group sales are projected to climb by a mid-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 2021, as long as there are no unforeseen slumps in WACKER's key regions and industries, and the pandemic is contained effectively.

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 likely to be slightly above last year's level (2020: 14.2 percent), with EBITDA 10 to 20 percent higher. The EBITDA trend reflects higher raw-material costs and negative exchange-rate effects of more than €100 million in total. This Group guidance takes account of some of the economic uncertainty caused by the coronavirus pandemic. Group net income for the year will be markedly above last year's level.

ROCE: ROCE will be substantially higher than last year (2020: 5.6 percent).

Net cash flow: we expect net cash flow to be clearly positive in 2021, though substantially lower than last year. This is due to higher capital expenditures, to termination expenses resulting from the Shape the Future program, and to a rise in working capital.

Outlook for Supplementary Performance Indicators at the Group Level

Capital expenditures: in 2021, capital expenditures will amount to around €350 million, which is significantly higher than last year, but below the depreciation and amortization level. At around €400 million, depreciation and amortization will be on par with last year. Capital spending included new dispersion and dispersible polymer powder facilities at the Burghausen and Nanjing sites, and a plant for making hybrid polymers at Nünchritz.

Net financial debt: positive cash flow will reduce net financial debt further (2020: €67.5 million). We anticipate that the balance of financial debt and financial assets will be in slightly positive territory.

Divisional Sales and EBITDA Trends

At WACKER SILICONES, we expect sales for 2021 to climb by a mid-single-digit percentage versus last year. Growth will be driven by higher volumes for specialty applications. Lower average prices in some product areas will have the opposite effect. We anticipate sales growth in all regions. Both EBITDA and the EBITDA margin are likely to be slightly higher than last year. Raw-material and energy prices should also rise slightly year over year.

At WACKER POLYMERS, we expect sales to grow by a mid-single-digit percentage, supported by higher volumes of dispersions and dispersible polymer powders. In this division, too, we anticipate sales growth in all regions. Due to a marked rise in raw-material costs, EBITDA will be much lower than last year, as will the EBITDA margin, which we expect to be between 15 and 18 percent.

We predict that WACKER BIOSOLUTIONS will lift its sales by a low-double-digit percentage, with the main impetus coming

B.55 Outlook for 2021

Key Financial Performance Indicators	Reported for 2020	Outlook 2021
EBITDA margin (%)	14.2	Slightly higher than last year
EBITDA (€ million)	666.3	10 to 20 percent higher than last year
ROCE (%)	5.6	Substantially higher than last year
Net cash flow (€ million)	697.7	Clearly positive, substantially lower than last year
Supplementary Financial Performance Indicators		
Sales (€ million)	4,692.2	Mid-single-digit percentage increase
Capital expenditures (€ million)	224.4	Around €350 million
Net financial debt (€ million)	67.5	Positive net financial assets
Depreciation/amortization (€ million)	403.5	Around €400 million

from biopharmaceuticals. EBITDA should be slightly higher than last year, with the EBITDA margin matching last year's level.

In our polysilicon business, we expect sales to climb by a mid-single-digit percentage in 2021, driven by an improved product mix and slightly higher volumes. Average polysilicon prices will not decline. We anticipate a clearly positive EBITDA, substantially above the year-earlier figure. The EBITDA margin should climb significantly.

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, 2020, WACKER had more than €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 2021. The progress made in containing the coronavirus pandemic will be the main factor influencing global economic growth. On the positive side, economic analysts expect global GDP (gross domestic product) to pick up, thanks to vaccination campaigns, concerted health-policy measures and government funding. But another economic downturn could ensue if there are any further delays in vaccine supplies or if restrictive measures to contain further outbreaks are significantly extended.

We expect a positive business trend in 2021, with sales climbing by a mid-single-digit percentage once again this year. EBITDA should be 10 to 20 percent higher than last year. The EBITDA trend will be slowed by significantly higher raw-material costs and negative exchange-rate effects. They will dampen EBITDA by over €100 million in total.

At around €350 million, capital expenditures will be markedly above the prior-year level. Depreciation and amortization will come in at around €400 million, on par with last year. Net cash flow will be clearly positive, though substantially lower than last year. Net financial debt will decline further and we anticipate a slight increase in net financial assets.

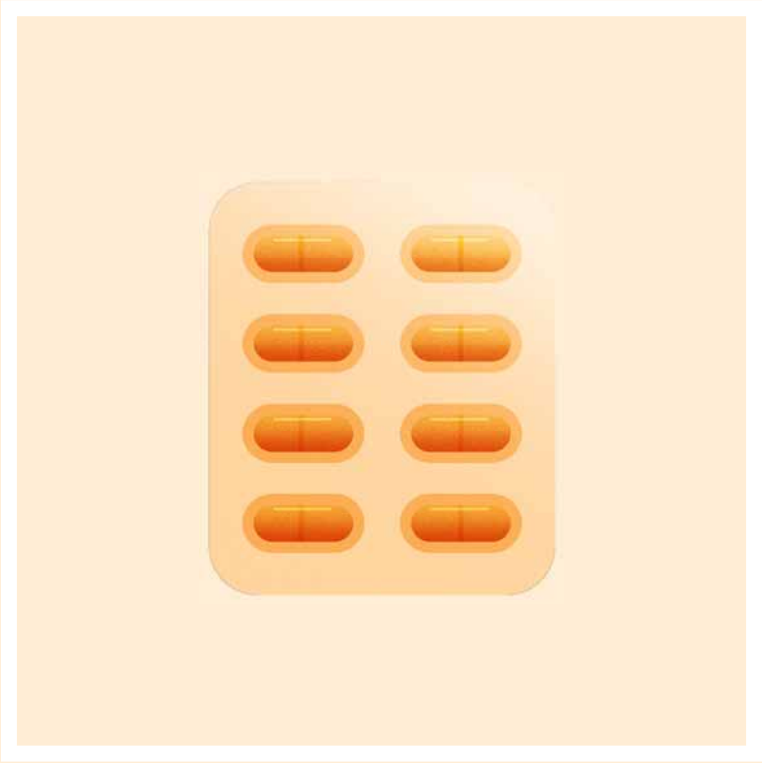
As regards the chemical divisions, we are confident that our excellent product portfolio will keep us on a growth trajectory and that our capital expenditures will meet market growth. At WACKER POLYSILICON, we also expect an increase in sales and a clearly positive EBITDA.

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

C

Consolidated Financial Statements

107 — 186



Polymeric binders from WACKER
help keep blister packs airtight
and their contents sterile.

C

Consolidated Financial Statements

C.1

Statement of Income

January 1 to December 31

€ million	Notes	2020	2019
Sales	01	**4,692.2**	4,927.6
Cost of goods sold	02	**–3,822.3**	–4,124.4
Gross profit from sales		**869.9**	803.2
Selling expenses		**–290.6**	–314.5
Research and development expenses		**–156.6**	–173.3
General administrative expenses		**–139.5**	–145.6
Other operating income	02	**85.5**	97.0
Other operating expenses	02	**–142.9**	–857.4
Operating result		**225.8**	–590.6
Result from investments in joint ventures and associates	03	**34.9**	54.3
Other investment income	03	**2.1**	–
EBIT (earnings before interest and taxes)		**262.8**	–536.3
Interest income	03	**8.1**	10.6
Interest expenses	03	**–22.0**	–20.3
Other financial result	03	**–31.0**	–45.2
Financial result		**–44.9**	–54.9
Income before income taxes		**217.9**	–591.2
Income taxes	04	**–15.6**	–38.4
Net income for the year		**202.3**	–629.6
Of which			
Attributable to Wacker Chemie AG shareholders		**189.2**	–642.6
Attributable to non-controlling interests	12	**13.1**	13.0
Earnings per common share (€) (basic / diluted)	20	**3.81**	–12.94

C.2

Statement of Comprehensive Income

January 1 to December 31

€ million	2020	2019
Net income for the year	**202.3**	–629.6
Items not subsequently reclassified to the statement of income		
Remeasurement of defined benefit plans	**–340.8**	–401.7
Of which income tax effects	**140.4**	140.6
Sum of items not reclassified to the statement of income	**–340.8**	–401.7
Of which result from investments accounted for using the equity method	**–29.1**	–40.1
Items subsequently reclassified to the statement of income		
Difference from foreign currency translation adjustment	**–179.8**	45.0
Of which recognized in profit or loss	**–**	–
Changes in fair value of derivative financial instruments (cash flow hedge)	**9.3**	2.8
Of which income tax effects	**–3.9**	–1.3
Of which recognized in profit or loss	**–2.2**	10.3
Sum of items reclassified to the statement of income	**–170.5**	47.8
Of which result from investments accounted for using the equity method	**–18.9**	10.4
Income and expenses recognized in equity	**–511.3**	–353.9
Of which		
Attributable to Wacker Chemie AG shareholders	**–506.1**	–353.9
Attributable to non-controlling interests	**–5.2**	–
Total income and expenses reported in the fiscal year	**–309.0**	–983.5
Of which		
Attributable to Wacker Chemie AG shareholders	**–316.9**	–996.5
Attributable to non-controlling interests	**7.9**	13.0

C.3

Statement of Financial Position

As of December 31

€ million	Notes	Dec. 31, 2020	Dec. 31, 2019
Assets			
Intangible assets	05	**21.1**	29.4
Property, plant and equipment	05	**2,393.2**	2,644.0
Right-of-use assets	06	**110.8**	119.8
Investment property	07	**2.7**	8.6
Investments in joint ventures and associates accounted for using the equity method	08	**49.1**	640.4
Securities	11	**–**	–
Other financial assets	10	**18.9**	58.8
Other receivables and assets	10	**4.9**	9.1
Deferred tax assets	04	**770.8**	632.9
Noncurrent assets		**3,371.5**	4,143.0
Inventories	09	**879.5**	979.8
Trade receivables	10	**627.0**	631.5
Other financial assets	10	**68.0**	79.9
Other receivables and assets	10	**73.5**	63.0
Income tax receivables	10	**40.5**	48.6
Securities and fixed-term deposits	11	**712.0**	109.4
Cash and cash equivalents	11	**626.0**	435.8
Assets held for Sale	12	**552.5**	–
Current assets		**3,579.0**	2,348.0
Total assets		**6,950.5**	6,491.0

€ million	Notes	Dec. 31, 2020	Dec. 31, 2019
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		**2,726.0**	2,561.6
Other equity items		**–1,473.9**	–967.8
Equity attributable to Wacker Chemie AG shareholders		**1,625.2**	1,966.9
Non-controlling interests		**66.6**	62.1
Equity	13	**1,691.8**	2,029.0
Provisions for pensions	14	**2,713.4**	2,275.3
Other provisions	15	**233.8**	232.6
Financing liabilities	16	**1,322.7**	1,049.0
Other financial liabilities	17	**0.1**	0.1
Income tax liabilities	17	**80.3**	82.0
Contract liabilities	17	**71.1**	61.0
Other liabilities	17	**1.9**	0.5
Deferred tax liabilities	04	**9.1**	9.2
Noncurrent liabilities		**4,432.4**	3,709.7
Other provisions	15	**68.8**	17.1
Financing liabilities	16	**82.8**	209.9
Trade payables	17	**424.2**	355.0
Other financial liabilities	17	**15.5**	14.3
Income tax liabilities	17	**12.5**	13.1
Contract liabilities	17	**63.0**	59.1
Other liabilities	17	**159.5**	83.8
Current liabilities		**826.3**	752.3
Liabilities		**5,258.7**	4,462.0
Total equity and liabilities		**6,950.5**	6,491.0

C.4

Statement of Cash Flows

January 1 to December 31

€ million	Notes	2020	2019
Net income for the year		**202.3**	–629.6
Depreciation, amortization and impairment losses / reversals of fixed assets		**403.5**	1,319.7
Result from disposal of fixed assets		**2.6**	5.9
Other non-cash expenses and income		**24.2**	45.2
Result from equity accounting		**–34.9**	–54.3
Net interest income		**13.9**	9.7
Interest paid		**–23.3**	–19.3
Interest received		**7.9**	10.6
Income tax expense		**15.6**	38.4
Taxes paid		**–11.3**	–10.5
Dividends received		**27.8**	48.8
Change in inventories		**42.5**	–9.1
Change in trade receivables		**–21.0**	52.0
Change in non-financial assets		**–10.2**	19.3
Change in financial assets		**6.9**	–0.9
Change in provisions		**50.8**	–30.9
Change in non-financial liabilities		**80.6**	–76.3
Change in financial liabilities		**81.7**	–82.9
Change in contract liabilities		**14.1**	–30.8
Cash flow from operating activities (gross cash flow)	22	**873.7**	605.0
Investments in intangible assets, property, plant and equipment, and investment property		**–226.5**	–415.1
Investments in financial assets		**–0.4**	–6.6
Proceeds from the disposal of fixed assets/financial assets		**50.9**	1.1
Cash payments for acquisitions		**–**	–
Cash flow from long-term investing activities before securities		**–176.0**	–420.6
Cash receipts from the disposal of securities and fixed-term deposits		**334.1**	26.0
Cash payments for the acquisition of securities and fixed-term deposits		**–941.2**	–88.9
Cash flow from investing activities	22	**–783.1**	–483.5
Dividends paid		**–24.8**	–124.2
Dividends paid to non-controlling interests		**–3.4**	–9.2
Additions to financial liabilities		**518.2**	222.1
Repayment of financial liabilities		**–341.1**	–80.1
Lease liabilities repaid		**–31.8**	–34.8
Cash flow from financing activities	22	**117.1**	–26.2
Change due to exchange-rate fluctuations		**–17.5**	–0.6
Change in cash and cash equivalents	11	**190.2**	94.7
At the beginning of the year		**435.8**	341.1
At the end of the year		**626.0**	435.8

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, 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	–	–	–	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
Jan. 1, 2020	**260.8**	**157.4**	**–45.1**	**2,561.6**	**–967.8**	**1,966.9**	**62.1**	**2,029.0**
Net income for the year	**–**	**–**	**–**	**189.2**	**–**	**189.2**	**13.1**	**202.3**
Income and expenses recognized in equity	**–**	**–**	**–**	**–**	**–506.1**	**–506.1**	**–5.2**	**–511.3**
Total comprehensive income	**–**	**–**	**–**	**189.2**	**–506.1**	**–316.9**	**7.9**	**–309.0**
Dividends paid	**–**	**–**	**–**	**–24.8**	**–**	**–24.8**	**–3.4**	**–28.2**
Dec. 31, 2020	**260.8**	**157.4**	**–45.1**	**2,726.0**	**–1,473.9**	**1,625.2**	**66.6**	**1,691.8**

C.6

Reconciliation of Other Equity Items

January 1 to December 31

€ million	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, 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
Jan. 1, 2020	**193.9**	**1.7**	**–1,159.7**	**–3.7**	**–967.8**
Changes recognized in equity	**–**	**11.5**	**–340.8**	**–**	**–329.3**
Reclassification to the statement of income	**–**	**–2.2**	**–**	**–**	**–2.2**
Changes in exchange rates	**–174.6**	**–**	**–**	**–**	**–174.6**
Dec. 31, 2020	**19.3**	**11.0**	**–1,500.5**	**–3.7**	**–1,473.9**
Attributable to non-controlling interests					
Jan. 1, 2019	–5.5	–	–	–	–5.5
Changes in exchange rates	–	–	–	–	–
Dec. 31, 2019	–5.5	–	–	–	–5.5
Jan. 1, 2020	**–5.5**	**–**	**–**	**–**	**–5.5**
Changes in exchange rates	**–5.2**	**–**	**–**	**–**	**–5.2**
Dec. 31, 2020	**–10.7**	**–**	**–**	**–**	**–10.7**

C.7

Segment Information by Division

January 1 to December 31

€ million	Silicones	Polymers	Biosolutions	Polysilicon	Other	Consolidation	Group
2020							
External sales	2,243.8	1,282.1	246.1	792.2	128.0	–	4,692.2
Internal sales	0.2	16.4	–	–	–	–16.6	–
Total sales	2,244.0	1,298.5	246.1	792.2	128.0	–16.6	4,692.2
EBIT	276.8	229.3	21.6	–147.8	–117.6	0.5	262.8
Depreciation, amortization and impairment losses / reversals	111.0	41.2	16.5	152.5	82.3	–	403.5
EBITDA	387.8	270.5	38.1	4.7	–35.3	0.5	666.3
EBIT includes: result from investments in joint ventures and associates	3.4	–	–	–	31.5	–	34.9
Impairment of fixed assets	–0.6	–	–	–0.1	–0.3	–	–1.0
Asset additions[1]	96.9	35.6	19.9	24.9	47.1	–	224.4
Additions to financial assets	–	–	–	–	0.4	–	0.4
Asset additions	96.9	35.6	19.9	24.9	47.5	–	224.8
Assets (Dec. 31)	1,644.3	673.5	223.1	1,040.8	3,368.9	–0.1	6,950.5
Liabilities (Dec. 31)	955.4	390.7	109.7	577.9	3,225.0	–	5,258.7
Net assets (Dec. 31)	688.9	282.8	113.4	462.9	143.9	–0.1	1,691.8
Investments in joint ventures and associates included in net assets (Dec. 31)[2]	45.0	–	–	–	554.5	–	599.5
Research and development expenses	60.2	32.2	5.7	21.3	37.2	–	156.6
Employees (Dec. 31)	5,076	1,540	764	2,180	4,723	–	14,283
Employees (average)	5,087	1,555	756	2,239	4,764	–	14,401

[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 23**.

[2] Includes assets held for sale. The segment data by division are part of the notes.

€ 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

[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 23**.

C.8

Segment Information by Region

January 1 to December 31

€ million	Germany	Rest of Europe	The Americas	Asia	Other regions	Consolidation	Group
2020							
External sales by customer location	**784.7**	**1,142.5**	**832.9**	**1,687.7**	**244.4**	**–**	**4,692.2**
External sales by Group company location	**3,588.4**	**209.8**	**1,134.6**	**918.2**	**11.2**	**–1,170.0**	**4,692.2**
Asset additions[1]	**161.7**	**17.6**	**14.6**	**30.4**	**0.1**	**–**	**224.4**
Additions to financial assets	**0.4**	**–**	**–**	**–**	**–**	**–**	**0.4**
Asset additions	**162.1**	**17.6**	**14.6**	**30.4**	**0.1**	**–**	**224.8**
Assets (Dec. 31)	**7,329.1**	**2,293.5**	**1,636.3**	**815.0**	**10.8**	**–5,134.2**	**6,950.5**
Liabilities (Dec. 31)	**5,155.3**	**189.8**	**361.4**	**250.4**	**6.1**	**–704.3**	**5,258.7**
Net assets (Dec. 31)	**2,173.8**	**2,103.7**	**1,274.9**	**564.6**	**4.7**	**–4,429.9**	**1,691.8**
Noncurrent assets[2]	**1,180.2**	**205.6**	**845.0**	**345.9**	**5.1**	**–**	**2,581.8**
Research and development expenses	**157.7**	**–**	**13.4**	**11.8**	**–**	**–26.3**	**156.6**
Employees (Dec. 31)	**10,096**	**647**	**1,625**	**1,847**	**68**	**–**	**14,283**
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

[1] Intangible assets; property, plant and equipment; investment property; excluding right-of-use assets
[2] 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 23**.

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 26. The Executive Board of Wacker Chemie AG approved the consolidated financial statements on March 4, 2021. They were submitted to the Supervisory Board for approval at its meeting on March 4, 2021.

New Accounting Standards

The following accounting standards and interpretations have been applied for the first time in these consolidated financial statements:

Standard / Interpretation		Mandatory from	Endorsed by EU	Impact on WACKER
Amendments to IFRS 3	Business Combinations – Definition of a Business	01.01.2020	22.04.2020	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	01.01.2020	10.12.2019	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.

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
Annual Improvements 2018–2020		14.05.2020	01.01.2022	H2 2021	WACKER currently assumes that the changes will not affect the Group's earnings, net assets or financial position.
Amendments to IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	14.05.2020	01.01.2022	H2 2021	The change specifies that the cost of fulfilling a contract comprises all costs that relate directly to the contract. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract (e.g. direct labor, materials) or an allocation of other costs that relate directly to fulfilling contracts (e.g. the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract). WACKER will examine all sales contracts in force as of the date of initial application to determine whether or not they are onerous contracts. Any adjustments resulting from initial application are to be recognized directly in Equity.
Amendments to IAS 16, "Property, Plant and Equipment"	Proceeds before Intended Use	14.05.2020	01.01.2022	H2 2021	The amendment prohibits deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. As WACKER made no use of this option in the past, this clarification will have no effect on its net assets or financial position.
Amendments to IAS 1, "Presentation of Financial Statements"	Classification of Liabilities as Current or Noncurrent – Deferral of Effective Date	Jan. 23, 2020, and July 15, 2020	01.01.2023	Q1 2021	The changes to IAS 1 clarify that the classification of liabilities as either current or noncurrent is based on the contractual arrangements in place at the reporting date. It is thus independent of management's expectations and of any events after the reporting date. This amendment also clarifies interpretation of the term "settlement" under IAS 1. WACKER does not expect these clarifications to result in any changes for the company.

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 a WACKER Group company exercises 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 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 a WACKER Group company 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.

Companies in which Wacker Chemie AG has a shareholding of less than 20 percent or over which it does not exercise significant influence are shown as 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 24

Composition of the Group

Number	2020	2019
Fully consolidated subsidiaries (incl. parent company)	**50**	50
Germany	**15**	15
International	**35**	35
Associates and joint ventures	**4**	4
Germany	**1**	1
International	**3**	3
Non-consolidated affiliated companies	**–**	–
Germany	**–**	–
International	**–**	–
Total	**54**	54
Germany	**16**	16
International	**38**	38
Structured entities	**–**	–
Germany	**–**	–
International	**–**	–

A total of 54 companies were included in the consolidated financial statements as of December 31, 2020 (Dec. 31, 2019: 54 companies).

Compared with December 31, 2019, the scope of consolidation did not change.

Statutory, contractual or regulatory restrictions and protective rights concerning non-controlling interests can limit the Group in its ability to retain access to assets, to 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 further details, please refer to the Notes section (Equity / Non-Controlling Interests / Capital Structure Management).

» See Note 13

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 by means of capital measures (dividends, capital reductions) and only with prior approval from government authorities. 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 entities 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 per-

manently 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.

Acquisitions after December 31, 2020

On February 2, 2021, Wacker Chemical Corp., Adrian, Michigan, USA signed a contract to acquire 100 percent of the shares in Genopis Inc., San Diego, California, USA. The shares were transferred before preparation of the consolidated financial statements. Established in 2018, Genopis is a contract manufacturer (CDMO) that operates a specialized, 500-liter-capacity fermentation line for the manufacture and purification of pDNA. The company's approximately 40 employees have experience in the production of pDNA in accordance with the quality guidelines of Good Manufacturing Practice (GMP). pDNA can be used either directly for nucleic acid-based gene therapies and for vaccines, or as a starting point for such innovative therapeutic agents, for example to manufacture messenger RNA (mRNA). The technology is a sensible addition to WACKER's biotechnology portfolio and expands its production range in the American market.

The total purchase price for the acquisition consists of a fixed amount of US$ 37 million due upon closing of the deal and further contingent purchase price payments within five years of the purchase. WACKER expects this acquisition to result in a future purchase price liability of around US$ 8 million.

WACKER is likely to acquire assets in the amount of US$ 25 million and liabilities of US$ 11 million. Intangible assets and goodwill are the main components of the difference of US$ 31 million between the purchase price and the net assets acquired. The final statement of financial position for the acquisition is not yet available. A purchase price allocation is still to be carried out.

WACKER simultaneously concluded a strategic cooperation agreement for production of the VM202 drug developed by the seller. This drug is currently in clinical trials.

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 material 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 items in the statement of financial position are translated from the functional currency to the reporting currency using the average rates of exchange prevailing on the reporting date, whereas items in income statement are translated using the average exchange rates of the reporting 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 corresponding 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 2020	Dec. 31 2019	2020	2019
US-dollar	USD	**1.23**	1.12	**1.14**	1.12
Chinese renminbi	CNY	**8.05**	7.81	**7.87**	7.73

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 relief, 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 of the period when the change occurred and, where applicable, of 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 affected asset's discounted future cash flows. The estimate of the discounted future cash flows contains significant assumptions, 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 on the basis of 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 financial 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 in accordance with the fair value hierarchy. This hierarchy consists of three levels, to which the input parameters are assigned according to the extent to which they are observable during the corresponding measurement process.

» See Note 21

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, 2020, a floor of zero applied to discount rates, meaning negative interest rates are not taken into account.

» See Note 15

Provisions for pensions and similar obligations are accounted for in accordance with actuarial valuations and assumptions regarding plan assets, 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 14

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 uses Markit iBoxx EUR AA Corporate Bond Index bonds. Moreover, it applies 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. 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.

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 result-

ing from currently available tax strategies and future taxable income, and also to take additional positive and negative factors into account. In the case of entities that, in the past, reported tax losses within the meaning of IAS 12, deferred tax assets are capitalized only in exceptional cases, where there is convincing other evidence that they can be realized.

Covid-19 Pandemic

The effects of the Covid-19 pandemic on the WACKER Group's business operations are described in the Group management report. Uncertainty remains as regards the forecast for 2021. The risks involved are discussed in the risk management report, which forms part of the Group management report. At year-end, it was difficult to estimate the pandemic's further impact on the global economy, or when and how quickly the economy would recover. However, WACKER's assumption was that the economy would pick up in the second half of 2021. For further details, please refer to the Risk Management Report and Outlook sections of the Group management report.

As of December 31, 2020, WACKER had not availed itself of any government support. The short-time work program introduced earlier in the year was discontinued in September 2020. Receivables management did not reveal any increase in past-due trade receivables as of the reporting date of December 30, 2020, nor had WACKER experienced any material defaults on receivables at that time. As part of its risk management activities, WACKER determines the expected credit loss for trade receivables using a risk matrix. Due to the Covid-19 crisis, WACKER increased its risk estimation within the bandwidths for past-due payments. Losses from the impairment of trade receivables amounted to € 6.7 million in the fiscal year. An analysis conducted showed no need for any impairment charges in relation to property, plant and equipment, leases, or financial assets.

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 goods or services. 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 goods or services. 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; revenue of this kind is 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 BIOSLOUTIONS 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, impairments and inventory write-downs. It 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 expenses also 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. There must also 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. Income taxes also contain adjustment amounts for any 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 no restrictions apply to the offset.

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. An impairment test is also performed when events or circumstances indicate a possible impairment. Impairments of goodwill are disclosed under other operating expenses.

Property, Plant and Equipment

Property, plant and equipment is capitalized at (acquisition or production) cost and depreciated on a straight-line basis over its expected economic life. The useful life is reviewed annually and, where 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 (production) 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 retired, 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 bis 40
Other buildings and similar rights	10 bis 30
Technical equipment and machinery	6 bis 12
Motor vehicles	4 bis 10
Factory and office equipment	3 bis 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

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. To calculate its incremental borrowing rate, WACKER uses interest rates from 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 financing 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 for 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."

If it is the 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.

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 measurement 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 (FVPL), 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 (FVOCI) 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 (FVPL) 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 (FVPL). 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.

Impairments of Financial Assets

IFRS 9 stipulates that, with the exception of derivative financial instruments, trade receivables and other financial assets must 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, demand 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 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 in accordance with 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 financing 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, no financing costs are recognized. 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 in accordance with their periods of storage and potential usability.

Emissions certificates allotted free of charge are recognized 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 known pensions and entitlements to future pensions 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 for 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 the management of plan assets are also recognized in 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 settlement 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.

Financing 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 financing 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	2020	2019
Revenues from contracts with customers		
Proceeds from deliveries of products and merchandise	**4,590.7**	4,804.1
Proceeds from other services	**96.9**	117.4
Total revenues from contracts with customers	**4,687.6**	4,921.5
Other revenues	**4.6**	6.1
Total revenues	**4,692.2**	4,927.6

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 make advance payments before a product is delivered or provision of a service commences. WACKER BIOSOLUTIONS also concludes medium-term contracts. To a minor extent, income is realized through the licensing of process know-how.

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

	WACKER SILICONES		WACKER POLYMERS		WACKER BIOSOLUTIONS		WACKER POLYSILICON		Other/ consolidation		Total	
€ million	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**
Revenue by Region												
Europe	**1,010.9**	1,084.1	**598.7**	599.1	**108.7**	91.5	**100.6**	97.2	**108.3**	132.1	**1,927.2**	2,004.0
The Americas	**411.8**	468.8	**322.2**	345.0	**88.8**	92.3	**9.6**	12.4	**0.5**	1.0	**832.9**	919.5
Asia	**671.7**	742.4	**298.0**	297.3	**40.5**	50.4	**674.9**	670.3	**2.6**	3.4	**1,687.7**	1,763.8
Other regions	**149.6**	157.7	**79.6**	73.7	**8.1**	8.8	**7.1**	0.1	**–**	–	**244.4**	240.3
Total	**2,244.0**	2,453.0	**1,298.5**	1,315.1	**246.1**	243.0	**792.2**	780.0	**111.4**	136.5	**4,692.2**	4,927.6
Of which revenues outside the scope of IFRS 15	**–**	0.5	**–**	–	**–**	–	**–**	–	**4.6**	5.6	**4.6**	6.1
Time of revenue recognition												
Point in time	**2,244.0**	2,453.0	**1,298.5**	1,315.1	**173.7**	178.9	**792.2**	780.0	**111.4**	136.5	**4,619.8**	4,863.5
Over time	**–**	–	**–**	–	**72.4**	64.1	**–**	–	**–**	–	**72.4**	64.1
Total	**2,244.0**	2,453.0	**1,298.5**	1,315.1	**246.1**	243.0	**792.2**	780.0	**111.4**	136.5	**4,692.2**	4,927.6

Trade receivables mainly comprise receivables from contracts with customers. For further details, 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 increase in advance payments received chiefly comprised advance payments received for polysilicon contracts.

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, 2020	**107.3**	**12.8**	**120.1**
Revenues recognized as advance payments in prior period	**–43.6**	**–**	**–43.6**
Revenues less discounts	**–**	**14.9**	**14.9**
Reversals recognized in income	**–**	**–1.0**	**–1.0**
Cash receipts (+)	**79.2**	**–**	**79.2**
Revenues recognized in 2020 from cash receipts (–)	**–25.1**	**–**	**–25.1**
Cash payments (–)	**–**	**–10.1**	**–10.1**
Exchange-rate differences	**–**	**–0.3**	**–0.3**
Change in the scope of consolidation	**–**	**–**	**–**
As of Dec. 31, 2020	**117.8**	**16.3**	**134.1**

€ 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

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 2020	Dec. 31 2019
Up to 2 years	**990.9**	750.0
Over 2 years to 3 years	**495.2**	389.5
Over 3 years to 4 years	**405.0**	313.9
Over 4 years to 5 years	**163.4**	312.8
Over 5 years	**857.7**	165.4
Total orders on hand	**2,912.2**	1,931.6

02 Cost of Goods Sold / Other Operating Income / Other Operating Expenses

€ million	2020	2019
Cost of goods sold	**–3,822.3**	–4,124.4
Cost of goods sold includes the following reversals (+) / recognitions (–) of valuation allowances on inventories	**–22.5**	–46.3
Other operating income		
Income from currency transactions	**58.2**	29.0
Income from reversal of provisions	**6.2**	2.1
Insurance compensation	**0.9**	2.0
Income from reversal of valuation allowances on trade receivables	**0.2**	0.1
Income from disposal of property, plant and equipment and financial assets	**0.2**	0.2
Income from incentives / grants	**3.6**	1.7
Income from the termination of long-term supply contracts	**–**	19.3
Other operating income	**16.2**	42.6
Total	**85.5**	97.0
Other operating expenses		
Losses from currency transactions	**–66.0**	–41.7
Losses from valuation allowances on trade receivables	**–6.6**	–0.8
Losses from disposal of assets	**–2.8**	–6.2
Losses from impairment of fixed assets	**–1.0**	–764.8
Losses from restructuring	**–48.9**	–
Other operating expenses	**–17.6**	–43.9
Total	**–142.9**	–857.4

Other operating expenses include € 48.9 million in restructuring costs under the Shape the Future program, primarily to cover severance payments to employees in Germany.

In the prior year, the cost of goods sold contained the insurance compensation of € 112.5 million received for the damage at the Charleston site.

As a result of contract changes, WACKER POLYSILICON derecognized the advance payments of € 19.3 million it had received from a solar customer in the previous year 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 charge of € 760 million was recognized on WACKER POLYSILICON's fixed assets as of December 31, 2019. The impairment loss was posted under other operating expenses.

03 Income from Investments in Joint Ventures and Associates / Other Investment Income / Net Interest Income / Other Financial Result

€ million	2020	2019
Result from investments in joint ventures and associates	**34.9**	54.3
Of which share of income from joint ventures	**1.8**	1.8
Of which share of income from associates	**33.1**	52.5
Other investment expenses/ investment income	**2.1**	–
Total	**37.0**	54.3
Net interest income		
Interest income	**8.1**	10.6
Of which from financial instruments (FVOCI)	**–**	–
Of which from financial instruments (amortized cost)	**7.8**	7.9
Interest expenses	**–22.0**	–20.3
Of which from financial liabilities (excluding leases)	**–18.3**	–16.7
Total	**–13.9**	–9.7
Other financial result		
Interest effect of interest-bearing provisions / liabilities	**–26.9**	–36.5
Other financial expenses / income	**–4.1**	–8.7
Total	**–31.0**	–45.2

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 € 0.2 million were capitalized in the reporting period, after € 2.5 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 1.5 percent, compared with 1.8 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 € 28.1 million (versus € 35.0 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 € 1.2 million (versus € 1.5 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 13.0 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 28.8 percent (versus 28.0 percent in the prior year). The current taxes of foreign subsidiaries are determined in accordance with 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 8.2 percent to 34.6 percent.

Deferred taxes on undistributed profits of subsidiaries were recognized only where distribution is planned. The amount of € 373.2 million is available for distribution, compared with € 362.0 million in the prior year. WACKER did not recognize a deferred tax liability of € 5.4 million (€ 5.2 million not recognized in the prior year) for the temporary difference of € 18.7 million (versus € 18.1 million), as it is able to control the timing.

Income taxes include current tax expenses of € 1.2 million from prior years (after € 0.7 million a year earlier) and deferred tax income of € 14.0 million (after € 23.7 million).

Reconciliation of Actual Tax Result

€ million	2020	2019
Current taxes, Germany	**14.5**	36.1
Current taxes, international	**–30.3**	–47.1
Current taxes	**–15.8**	–11.0
Deferred taxes, Germany	**5.6**	–10.5
Deferred taxes, international	**–5.4**	–16.9
Deferred taxes	**0.2**	–27.4
Income taxes	**–15.6**	–38.4
Derivation of the effective tax rate		
Income before taxes	**217.9**	–591.2
Income tax rate for Wacker Chemie AG (%)	**28.8**	28.0
Expected tax income / expenses	**–62.7**	165.6
Tax rate divergences	**18.2**	–41.7
Tax effect of non-deductible expenses	**–18.8**	–35.3
Tax effect of tax-free income	**24.2**	3.4
Taxes relating to other periods (current earnings)	**12.8**	23.0
Effects of loss carryforwards and temporary differences	**1.6**	–168.4
Group profit from investments in joint ventures and associates	**10.0**	15.1
Other differences	**–0.9**	–0.1
Total income tax	**–15.6**	–38.4
Effective tax rate (%)	**7.1**	–6.5

Deferred tax expenses in the year under review contained an amount of € 0.0 million (€ 2.0 million a year earlier) in previously unrecognized temporary differences and previously unrecognized tax losses from earlier periods.

Allocation of Deferred Taxes

€ million	2020		2019	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	**4.6**	**4.7**	10.4	5.2
Property, plant and equipment	**75.7**	**27.1**	87.5	23.8
Financial assets	**–**	**–**	–	0.1
Right-of-use assets	**–**	**25.0**	–	25.9
Sundry assets	**32.8**	**12.2**	32.3	2.9
Provisions for pensions	**624.1**	**–**	487.7	–
Other provisions	**44.2**	**0.5**	35.0	–
Lease liabilities	**26.5**	**0.8**	29.0	0.7
Other liabilities	**3.1**	**4.5**	5.9	5.5
Loss carryforwards	**25.5**	**–**	–	–
Setting off for companies with group taxation	**–2.0**	**–2.0**	–3.8	–3.8
Total	**834.5**	**72.8**	684.0	60.3
Setoffs	**–63.7**	**–63.7**	–51.1	–51.1
Amount recorded in Statement of Financial Position	**770.8**	**9.1**	632.9	9.2

The changes in deferred tax assets and liabilities of € 0.2 million were recognized as income (versus expenses of € 27.4 million a year earlier), while € 136.5 million (versus € 139.3 million) was recognized directly in equity. The changes mainly comprise deferred tax assets from variations in actuarial gains and losses stemming from pension provisions.

The existing tax loss carryforwards can be utilized as follows:

€ million	2020	2019
Within 1 year	**–**	–
Within 2 years	**–**	–
Within 3 years	**–**	–
Within 4 years	**–**	–
Within 5 years or later	**167.7**	44.8
Total	**167.7**	44.8

The total loss carryforwards generated amounted to € 167.7 million (versus € 44.8 million in the previous year). Of this amount, € 78.2 million (versus € 44.8 million) is expected to be non-realizable, which is why no deferred taxes were recognized. Had they been recognized, however, they would have amounted to € 19.6 million (versus € 10.5 million). Of the loss carryforwards that are not realizable for tax purposes, the amount of € 23.6 million (versus € 22.3 million) is unlimited as to time and amount. As of December 31, 2020, no deferred tax assets were recognized for tax-deductible temporary differences in the amount of € 820.1 million (versus € 940.3 million). This year-over-year decrease was attributable to the smaller amount not recognized for temporary differences on the impairment of fixed assets.

Deferred tax assets in the amount of € 770.8 million (versus € 632.9 million) were recognized on temporary differences and tax loss carryforwards; no deferred tax liabilities for a corresponding amount were posted. WACKER assumes that future taxable income will probably be sufficient to realize these deferred tax 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
2020						
Balance as of Jan. 1, 2020	**169.2**	**1,627.5**	**8,315.1**	**628.4**	**238.9**	**10,809.9**
Additions	**2.0**	**10.3**	**67.9**	**15.8**	**128.4**	**222.4**
Disposals	**–1.5**	**–3.1**	**–32.0**	**–31.2**	**–**	**–66.3**
Transfers	**0.5**	**30.6**	**123.3**	**6.4**	**–160.8**	**–0.5**
Changes in the scope of consolidation	**–**	**–**	**–**	**–**	**–**	**–**
Exchange-rate differences	**–3.5**	**–65.4**	**–228.2**	**–6.9**	**–6.1**	**–306.6**
Gross carrying amount as of Dec. 31, 2020	**166.7**	**1,599.9**	**8,246.1**	**612.5**	**200.4**	**10,658.9**
Cumulative depreciation / amortization and impairments	**–145.6**	**–993.8**	**–6,754.8**	**–517.2**	**0.1**	**–8,265.7**
Changes in the scope of consolidation	**–**	**–**	**–**	**–**	**–**	**–**
Carrying amount as of Dec. 31, 2020	**21.1**	**606.1**	**1,491.3**	**95.3**	**200.5**	**2,393.2**
Depreciation / amortization	**–10.2**	**–41.0**	**–287.7**	**–31.5**	**–**	**–360.2**
Impairment losses	**–**	**–0.4**	**–0.6**	**–**	**–**	**–1.0**
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
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

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.

In 2020, the acquisition costs for property, plant and equipment were reduced by investment grants totaling € 3.1 million (compared with € 1.2 million in the previous year).

In the reporting year, borrowing costs of € 0.2 million (€ 2.5 million in the prior year) were capitalized as part of the acquisition or production costs of qualifying assets. The average financing cost rate was 1.5 percent (1.8 percent a year earlier).

The impairment losses recognized in the prior year related 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
2020				
Balance as of Jan. 1, 2020	**115.5**	**77.1**	**22.5**	**215.1**
Additions	**43.9**	**1.6**	**6.9**	**52.4**
Disposals	**–27.6**	**–1.8**	**–1.3**	**–30.7**
Transfers	**–**	**–**	**–**	**–**
Changes in the scope of consolidation	**–**	**–**	**–**	**–**
Exchange-rate differences	**–1.8**	**–2.4**	**–0.5**	**–4.7**
Gross carrying amount as of Dec. 31, 2020	**130.0**	**74.5**	**27.6**	**232.1**
Cumulative depreciation / amortization and impairments	**–37.1**	**–66.9**	**–17.3**	**–121.3**
Changes in the scope of consolidation	–	–	–	–
Carrying amount as of Dec. 31, 2020	**92.9**	**7.6**	**10.3**	**110.8**
Depreciation / amortization	**–19.5**	**–2.7**	**–9.3**	**–31.5**
Impairment losses	**–**	**–**	**–**	**–**
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	–	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

As regards land and buildings, WACKER rents properties, including office space and storage areas. These properties include the land and buildings of WACKER's Munich headquarters, which are rented from the company pension fund (Pensionskasse VVaG). Expectations regarding the utilization of extension options were adjusted in 2020.

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 result in future cash outflows. As of the reporting date, no material extension options existed that were not recognized in the statement of financial position. In connection with the construction of a new warehouse, as of 2021 WACKER will recognize obligations of € 1.9 million annually under leases that are yet to commence.

The prior-year impairment losses related to right-of-use assets of WACKER POLYSILICON, which were impaired after an impairment test.

Lease Liabilities

€ million	2020 Total	2020 Of which noncurrent	2020 Of which current	2019 Total	2019 Of which noncurrent	2019 Of which current
Lease liabilities	**122.8**	**98.0**	**24.8**	137.8	111.4	26.4

In 2020, lease liabilities of € 31.8 million were repaid (versus € 34.8 million a year earlier) and lease-related interest of € 3.7 million was paid (versus € 3.6 million) (see also Note 22 “Notes to the Statement of Cash Flows”).

As of the reporting date, future cash outflows totaled € 144.8 million (versus € 171.1 million a year earlier). The following schedule for lease payments applies.

€ million	2020	2019
Lease payment within 1 year	**–29.9**	–31.5
Lease payment between 1 and 5 years	**–65.2**	–63.2
Lease payment over more than 5 years	**–49.7**	–76.4
Total	**–144.8**	–171.1

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 in the amount of € 1.2 million (versus € 7.0 million a year earlier) and as a finance lease in the amount of € 1.5 million (versus € 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.

The statement of income includes the following expenses and income in relation to leases.

€ million	2020	2019
Sales		
Income from operating leases	**–**	–
Income from subleases	**1.3**	1.0
Income from sale and leaseback transactions	**–**	–
Functional costs		
Expenses from short-term leases	**–5.1**	–5.6
Expenses from leases of low-value assets	**–4.0**	–4.1
Expenses from variable lease payments	**–**	–
Other expenses from leases (incidental costs)	**–**	–
Amortization		
Amortization of right-of-use assets	**–31.5**	–34.5
Impairments of right-of-use assets	**–**	–5.9
Financial result		
Interest expenses from lease liabilities	**–3.7**	–3.6
Income from foreign currency translation of lease liabilities	**–**	–
Expenses from foreign currency translation of lease liabilities	**–**	–

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.

€ million	2020	2019
Jan. 1, 2020, as reported	**17.2**	9.5
Effects from initial application of IFRS 16	**–**	7.7
Jan. 1, 2020	**17.2**	17.2
Additions	**0.3**	–
Disposals	**–5.6**	–
Gross carrying amount as of Dec. 31, 2020	**11.9**	17.2
Cumulative amortization	**–9.2**	–8.6
Carrying amount as of Dec. 31, 2020	**2.7**	8.6
Fair value	**18.4**	24.3
Rental income	**1.7**	1.9
Costs	**–0.8**	–0.9

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. No changes have been made to the valuation process 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. As of December 31, 2020, this investment was accounted for in accordance with IFRS 5 (see Note 12).

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	2020	2019
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 (€)	**128.1**	89.72
Market capitalization of shares (€ million)	**1,184.9**	829.9
Dividends received (€ million)	**27.8**	46.3

Summarized Financial Information on Siltronic AG and Its Subsidiaries[1] on a 100-Percent Basis

€ million	2020	2019
Current assets	**824.3**	864.7
Noncurrent assets excluding goodwill	**1,379.3**	1,432.9
Current liabilities	**219.2**	243.5
Noncurrent liabilities	**900.7**	857.9
Net assets (100%)	**1,083.7**	1,196.2
Less share of non-controlling interests	**–95.3**	–76.4
Group's share of net assets	**304.8**	345.3
Elimination of unrealized interim profits and losses	**–0.1**	0.6
Goodwill	**245.7**	245.7
Carrying amount of share in associate	**550.4**	591.6
Sales	**1,207.1**	1,270.4
Group net income for the year	**108.1**	171.8
Other comprehensive income	**–149.5**	–97.6
Total	**–41.4**	74.2

[1] Consolidated financial statements of Siltronic AG in accordance with IFRS

Reconciliation of the Equity Carrying Amount

€ million	2020	2019
Carrying amount of equity-accounted investments		
At the beginning of the year	591.6	616.6
Pro rata net income for the year	33.4	52.5
Other changes recognized in profit or loss	–0.7	–1.1
Change recognized in profit or loss	32.7	51.4
Dividends	–27.8	–46.3
Change in other equity	–46.1	–30.1
At the end of the year	550.4	591.6

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 Associates That Are Immaterial Individually

€ million	2020	2019
Carrying amount of equity-accounted investments		
At the beginning of the year	10.9	11.6
Pro rata net income for the year	1.8	1.8
Share of change in other equity	–0.4	0.1
Overall result of the companies	1.4	1.9
Dividends	–	–2.6
At the end of the year	12.3	10.9

Summarized Pro Rata Financial Information for Joint Ventures That Are Immaterial Individually

€ million	2020	2019
Carrying amount of equity-accounted investments		
At the beginning of the year	37.9	30.1
Pro rata net income for the year	0.3	1.1
Share of change in other equity	–1.4	0.4
Overall result of the companies	–1.1	1.5
Addition	–	6.3
At the end of the year	36.8	37.9

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.

Nexeon 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 Nexeon's pro rata result in its consolidated financial statements with a time lag of three months.

The following shows the key figures for companies accounted for using the equity method.

€ million	2020		2019	
	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	–0.8	–0.4	0.2	0.1
Total	2.8	1.4	3.8	1.9
Key Figures for Associates				
Net income for the year	109.3	33.7	176.2	53.6
Other comprehensive income	–155.1	–47.5	–96.0	–29.7
Total	–45.8	–13.8	80.2	23.9

09 Inventories

€ million	2020	2019
Raw materials and supplies	**295.6**	313.4
Unfinished and finished products, merchandise	**581.8**	665.3
Services not charged	**2.1**	1.1
Total	**879.5**	979.8
Of which recorded at net realizable value if lower	**229.9**	222.4

Cost of goods sold includes inventory expenses totaling € 3.8 billion (after € 4.1 billion a year earlier). Valuation allowances recognized as expenses increased by € 22.5 million in the reporting period. In the previous year, they had increased by € 46.3 million.

10 Financial and Non-Financial Assets / Receivables

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.

€ million	2020			2019		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Trade receivables	**627.0**	**–**	**627.0**	631.5	–	631.5
Investments	**11.9**	**11.9**	**–**	11.6	11.6	–
Loans to associates	**39.5**	**–**	**39.5**	91.1	40.3	50.8
Receivables from associates	**0.4**	**–**	**0.4**	0.4	–	0.4
Loan and interest receivables	**0.5**	**–**	**0.5**	0.4	–	0.4
Derivative financial instruments	**13.9**	**1.3**	**12.6**	5.5	1.9	3.6
Receivables from suppliers	**13.9**	**–**	**13.9**	21.9	–	21.9
Deposits	**2.7**	**2.6**	**0.1**	3.1	2.7	0.4
Restricted cash and cash equivalents	**–**	**–**	**–**	1.1	–	1.1
Sundry assets	**4.1**	**3.1**	**1.0**	3.6	2.3	1.3
Other financial assets	**86.9**	**18.9**	**68.0**	138.7	58.8	79.9
Prepaid expenses	**11.0**	**0.6**	**10.4**	8.1	0.6	7.5
Plan assets for phased early retirement	**–**	**–**	**–**	–	–	–
Advance payments made	**9.8**	**3.0**	**6.8**	9.5	3.6	5.9
Other tax receivables	**49.1**	**1.3**	**47.8**	48.4	4.9	43.5
Sundry assets	**8.5**	**–**	**8.5**	6.1	–	6.1
Other non-financial assets	**78.4**	**4.9**	**73.5**	72.1	9.1	63.0
Income tax receivables	**40.5**	**–**	**40.5**	48.6	–	48.6

The following table shows a breakdown of expected impairments of trade receivables:

Development of Past-Due Trade Receivables as of Dec. 31, 2020

€ million	Carrying amount	Loss allowance	Expected loss rate (%)
Not past due	530.4	–4.4	–0.84
Up to 30 days past due	79.8	–1.1	–1.40
31 to 60 days past due	17.7	–0.5	–2.91
61 to 90 days past due	4.0	–0.2	–5.26
Individually impaired receivables	1.8	–0.5	–38.46
Total as of Dec.31, 2020	633.7	–6.7	–1.07

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

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 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.

Loss allowances and past-due debts developed as follows:

Development of Loss Allowances for Trade Receivables

€ million	2020	2019
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	5.3	–
Receivables impaired as uncollectible	–	–
Change in scope of consolidation	–	–
Exchange-rate differences	–	–
As of Dec. 31	8.6	3.3

The loss allowances relate exclusively to revenue from contracts with customers. There was no material credit risk as of December 31, 2020.

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 / Liquidity

€ million	2020	2019
Securities and fixed-term deposits[1]	**712.0**	109.4
Of which current	**712.0**	109.4
Of which noncurrent	**–**	–
Cash and cash equivalents	**626.0**	435.8
Cash equivalents	**330.5**	295.1
Bank deposits, cash on hand	**295.5**	140.7
Liquidity in total	**1,338.0**	545.2

[1] The securities mainly consist of a fund and fixed-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 immaterial. None of WACKER's cash funds are subject to currency export restrictions.

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 may 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 Assets Held for Sale

On December 9, 2020, Wacker Chemie AG signed an agreement with GlobalWafers Co. Ltd., a Taiwanese competitor of Siltronic AG, to transfer WACKER's Siltronic stake of 30.83 percent to GlobalWafers as part of the latter's takeover bid for the company. Under the agreement, GlobalWafers Co. Ltd. is to acquire at least 50 percent of the shares in Siltronic AG. The offer period ended on February 10, 2021, with more than 50 percent of Siltronic's shareholders accepting the offer price of € 145 per share. As of December 31, 2020, WACKER reclassified its equity-accounted investment of € 550.4 million in Siltronic AG to assets held for sale. Since that date, the investment has no longer been accounted for using the equity method (see Note 5). The takeover is subject to approval by the antitrust authorities, which is expected to be granted within a year. The investment in Siltronic AG is reported in the "Other" segment.

This item also includes property held for sale in the amount of € 2.1 million.

13 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. As of 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 the capital stock.

The following table shows the development in the year under review and in the prior year:

Units	2020	2019
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 the Related Party Disclosures section.

» See Note 25

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 include the differences arising from currency translation of the financial statements of foreign subsidiaries using reporting currencies other than the euro, and the effects of the measurement 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	2020	2019
Profits	13.1	13.0
Losses	–	–
Net result attributable to non-controlling interests	**13.1**	13.0

Non-controlling interests in equity primarily comprised the following companies:

Non-Controlling Interests

€ million	2020	2019
Wacker Asahi Kasei Silicone Co. Ltd., Tokyo, Japan	7.8	8.7
Wacker Metroark Chemicals Pvt. Ltd., Parganas, India	39.9	37.1
Wacker Chemicals Fumed Silica (ZJG) Holding Co., Private Ltd. Singapore[1]	18.9	16.3
Total	**66.6**	62.1

[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 24

Information on Capital Structure Management

The goal of the WACKER Group's capital structure 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 structure management instruments employed to achieve this goal include dividend payments to shareholders and stock buybacks.

In managing the structure of 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, the 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	2020	2019
Equity attributable to Wacker Chemie AG shareholders	1,625.2	1,966.9
Share of total capital (%)	**53.6**	61.0
Noncurrent financing liabilities	1,322.7	1,049.0
Current financing liabilities	82.8	209.9
Total	**1,405.5**	1,258.9
Share of total capital (%)	**46.4**	39.0
Total capital	**3,030.7**	3,225.8

14 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 are either defined contribution or 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 that 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.

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 in relation to years 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 (Pensionssicherungsverein 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, Michigan. 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 quality, 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, 2020			Dec. 31, 2019		
	Germany	International	Total	Germany	International	Total
Present value of the at least partially fund-financed defined benefit obligations	**3,390.3**	**110.4**	**3,500.7**	2,936.0	110.6	3,046.6
Fair value of plan assets	**–1,989.4**	**–104.3**	**–2,093.7**	–1,854.0	–101.8	–1,955.8
Funded status	**1,400.9**	**6.1**	**1,407.0**	1,082.0	8.8	1,090.8
Present value of unfunded defined benefit obligations	**1,293.6**	**12.8**	**1,306.4**	1,170.4	14.1	1,184.5
Provisions for pensions and similar obligations	**2,694.5**	**18.9**	**2,713.4**	2,252.4	22.9	2,275.3

Due to the prevailing low interest rates, Wacker Chemie AG and WACKER's other German subsidiaries made a special payment of € 73.4 million to the company pension fund (Pensionskasse der Wacker Chemie VVaG) in 2020 (2019: € 70.7 million). This payment is recognized 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, 2019	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
Current service cost	**102.8**	**–**	**102.8**
Interest expense / (income)	**54.2**	**–26.1**	**28.1**
Past service cost	**–0.2**	**–**	**–0.2**
Remeasurements			
Gains (–) / losses (+) from plan assets without amounts already recognized in interest income	**–**	**–39.5**	**–39.5**
Gains (–) / losses (+) from changes in demographic assumptions	**–0.8**	**–**	**–0.8**
Gains (–) / losses (+) from changes in financial assumptions	**532.5**	**–**	**532.5**
Gains (–) / losses (+) from experience adjustments	**–41.2**	**–**	**–41.2**
Effects of exchange-rate differences	**–10.5**	**8.6**	**–1.9**
Contributions by			
Employer	**–**	**–110.8**	**–110.8**
Pension plan beneficiaries	**23.0**	**–23.0**	**–**
Transfers	**–**	**–**	**–**
Pension payments	**–83.8**	**52.9**	**–30.9**
As of Dec. 31, 2020	**4,807.1**	**–2,093.7**	**2,713.4**

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

%	2020	2019
Germany		
Discount rate	**0.70**	1.25
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	**2.29**	3.16
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 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. It 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 are not taken into consideration.

The table below shows the possible changes in the present value of pension obligations resulting from changes in the key actuarial assumptions.

Sensitivity Analysis

	Dec. 31, 2020		Dec. 31, 2019	
Effect on defined benefit obligation	Defined benefit obligation in € million	Change (%)	Defined benefit obligation in € million	Change (%)
Present value of pension obligations as of the reporting date	**4,807.1**		4,231.1	
Present value of pension obligations if				
the discount rate increases by 0.5 percentage points	**4,322.6**	**–10.1**	3,820.2	–9.7
the discount rate decreases by 0.5 percentage points	**5,373.9**	**11.8**	4,710.7	11.3
salaries increase by 0.5 percentage points	**4,842.0**	**0.7**	4,264.5	0.8
salaries decrease by 0.5 percentage points	**4,774.9**	**–0.7**	4,200.4	–0.7
future pension increases are 0.25 percentage points higher	**4,962.1**	**3.2**	4,363.5	3.1
future pension increases are 0.25 percentage points lower	**4,660.1**	**–3.1**	4,105.4	–3.0
life expectancy goes up by one year	**4,999.1**	**4.0**	4,390.5	3.8

Composition of Plan Assets

In Germany, 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. Half is invested directly in promissory notes (German Schuldscheine), real estate, real estate loans, private debt and private equity. The remainder is held 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 the Group's plan assets is shown in the following table:

Composition of Plan Assets

€ million	Dec. 31, 2020			Dec. 31, 2019		
	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	**–**	**376.9**	**376.9**	–	335.2	335.2
Loans / fixed-interest securities	**710.6**	**298.7**	**1,009.3**	659.1	305.6	964.7
Shares / funds	**281.0**	**310.6**	**591.6**	278.5	282.3	560.8
Cash and cash equivalents	**–**	**115.9**	**115.9**	–	95.1	95.1
Total	**991.6**	**1,102.1**	**2,093.7**	937.6	1,018.2	1,955.8

The WACKER Group was utilizing € 115.0 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.

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. In the course of an annual asset-liability study, the current and future relationships between 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. In this way, the required return, company contributions of sponsoring entities and strategic asset allocation are reviewed annually and reconciled with each other.

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 by means of overlay management. In some cases, derivatives are used for hedging purposes.

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 2020, benefits in the amount of € 77.4 million (versus € 73.8 million a year earlier) were paid under pension plans in Germany and € 6.4 million (versus € 5.8 million) under pension plans outside of Germany. WACKER anticipates that pension payments will reach approximately € 89 million in the current fiscal year. Current employer contributions to plan assets will amount to around € 40 million in 2021. The weighted duration of pension obligations as of December 31, 2020, was 22.6 years in Germany (versus 21.9 years a year earlier) and 13.0 years in the United States (versus 13.6 years).

Expected Pension Payments Due

€ million	Dec. 31, 2020	Dec. 31, 2019
Less than one year	**–88.9**	–85.6
One to two years	**–96.4**	–93.0
Two to three years	**–100.6**	–97.4
Three to four years	**–104.8**	–101.5
Four to five years	**–110.5**	–106.5

Composition of Pension Expenses

€ million	2020	2019
Current service cost from defined benefit plans	**–102.8**	–81.7
Past service cost	**0.2**	0.3
Net interest expense for defined benefit plans	**–28.1**	–35.0
Defined contribution plan expenses	**–6.7**	–7.1
Other pension expenses	**–3.2**	–3.7
Contributions to state pensions	**–58.8**	–60.2
Total	**–199.4**	–187.4

15 Other provisions

€ million	2020			2019		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Personnel	**117.1**	**110.4**	**6.7**	107.7	101.7	6.0
Restructuring	**48.0**	**2.4**	**45.6**	–	–	–
Sales / purchasing	**10.6**	**3.9**	**6.7**	8.3	4.5	3.8
Environmental protection	**84.1**	**84.1**	**–**	86.1	86.1	–
Sundry	**42.8**	**33.0**	**9.8**	47.6	40.3	7.3
Other provisions	**302.6**	**233.8**	**68.8**	249.7	232.6	17.1

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.

Provisions for Restructuring

Under a voluntary program as part of its Shape the Future project, WACKER has been offering employees in Germany redundancy packages. The majority of the provisions for this restructuring program are recognized as current given that the corresponding payments will be made in 2021.

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 recognized 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 0.4 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, 2020	Utilization	Reversal	Addition	Interest effect	Exchange-rate differences	Changes in scope of consolidation / other[1]	Dec. 31, 2020
Personnel	107.7	–45.8	–0.5	65.6	0.6	–0.6	–9.9	117.1
Restructuring	–	–	–	48.0	–	–	–	48.0
Sales / purchasing	8.3	–2.1	–1.3	6.2	–	–0.5	–	10.6
Environmental protection	86.1	–2.8	–4.0	5.2	–	–0.4	–	84.1
Sundry	47.6	–4.7	–8.6	11.4	–	–2.9	–	42.8
Other provisions	**249.7**	**–55.4**	**–14.4**	**136.4**	**0.6**	**–4.4**	**–9.9**	**302.6**

[1] "Other" includes the change of € 9.9 million in plan assets for phased-early-retirement commitments within provisions for personnel.

16 Financing Liabilities

€ million	2020			2019		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Liabilities to banks	1,104.5	1,053.4	51.1	816.4	756.9	59.5
Liabilities from lease obligations	122.8	98.0	24.8	137.8	111.4	26.4
Other financing liabilities	178.2	171.3	6.9	304.7	180.7	124.0
Financing liabilities	**1,405.5**	**1,322.7**	**82.8**	1,258.9	1,049.0	209.9

In 2020, WACKER repaid the second installment of its private placement in the amount of US$ 130 million on schedule and issued new promissory notes (German Schuldscheine) for € 300 million. These promissory notes replace short-term interim financing of € 250 million. Ongoing repayments of investment loans totaled € 16 million. In 2019, WACKER had taken out new bank loans totaling € 200 million.

No collateral exists for financing 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 notional 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	2020				2019			
	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
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	45.5	2023
Promissory note (German Schuldschein)	EUR	150.0	43.0	2025	EUR	150.0	43.0	2025
Promissory note (German Schuldschein)	EUR	226.0	66.5	2024	-	–	–	–
Promissory note (German Schuldschein)	EUR	74.0	5.5	2026	-	–	–	–
Bank loan	KRW	19.4	19.4	2020	KRW	21.6	21.6	2020
Bank loan	EUR	100.0	–	2022	EUR	100.0	–	2022
Bank loan	EUR	100.0	–	2024	EUR	100.0	–	2024
Operating loan	BRL	19.6	19.6	2021	BRL	16.6	16.6	2020
Other		15.5	2.4			12.2	3.9	
Total		1,104.5	–			816.4	–	
Fair value		1,119.9	–			825.1	–	

Other financing liabilities comprise the following:

€ million	2020				2019			
	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	–	–	2020	USD	115.9	–	2020
Private placement (3rd installment)	USD	162.4	–	2023	USD	178.0	–	2023
Sundry other financial liabilities		15.8	–			10.8	–	
Total		178.2	–			304.7	–	
Fair value		184.5	–			305.0	–	

The carrying amounts of current financing liabilities correspond to the repayment amounts. With the exception of other lines of credit in the amount of € 7.6 million (versus € 4.2 million a year earlier), all loans fall due on maturity.

The following table shows the future redemption and interest payments for the bank liabilities and other financing liabilities.

€ million	2021	2022	2023	2024	2025 - 2026
Repayment	58.0	309.7	364.7	326.6	223.7
Interest	16.7	14.9	8.8	4.3	1.8

There are also unused long-term lines of credit amounting to € 690.0 million (versus € 600.0 million a year earlier), where all the conditions for utilization are met.

17 Financial and Non-Financial Liabilities

€ million	2020			2019		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Trade payables	**424.2**	**–**	**424.2**	355.0	–	355.0
Derivative financial instruments	**0.4**	**–**	**0.4**	6.0	–	6.0
Sundry financial liabilities	**15.2**	**0.1**	**15.1**	8.4	0.1	8.3
Other financial liabilities	**15.6**	**0.1**	**15.5**	14.4	0.1	14.3
Payables relating to social security	**9.7**	**–**	**9.7**	8.3	–	8.3
Payroll liabilities	**5.1**	**–**	**5.1**	5.6	–	5.6
Variable compensation	**84.0**	**–**	**84.0**	15.7	–	15.7
Other personnel liabilities	**21.6**	**–**	**21.6**	24.5	–	24.5
Other tax liabilities	**22.2**	**–**	**22.2**	18.5	–	18.5
Deferred income	**1.4**	**–**	**1.4**	2.1	–	2.1
Sundry non-financial liabilities	**17.4**	**1.9**	**15.5**	9.6	0.5	9.1
Other non-financial liabilities	**161.4**	**1.9**	**159.5**	84.3	0.5	83.8
Advance payments received	**117.8**	**71.1**	**46.7**	107.3	61.0	46.3
Discount accruals	**16.3**	**–**	**16.3**	12.8	–	12.8
Contract liabilities	**134.1**	**71.1**	**63.0**	120.1	61.0	59.1
Income tax liabilities	**92.8**	**80.3**	**12.5**	95.1	82.0	13.1

Income tax liabilities contain amounts for current income tax obligations as well as for uncertain tax positions.

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.

The 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.

18 Contingent Liabilities, Contingent Assets, Other Financial Obligations and Other Risks

The values of contingent liabilities correspond to the extent of the liability as of the reporting date. At WACKER, contingent liabilities primarily concern incurred guarantees totaling € 1.5 million, versus € 0.9 million in the prior year. It is unlikely that the guarantees will be utilized.

Obligations from orders for planned investment projects (commitments) amounted to € 103.0 million, after € 59.4 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 for an annual amount of some € 90 million, versus € 90 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. As a result, the company had, on balance, other financial obligations in the amount of € 1.10 billion arising from material minimum-purchasing arrangements in the reporting period, after € 1.60 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 main-

tained at certain sites. If these contractual commitments are not fulfilled, all or part of any funding received must be paid back. The Group has a limited time period during which to fulfill its contractual commitments.

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.

19 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 the statutory pension system and allocations to pension provisions. Related interest is shown in the financial result. Expenses incurred for transfers to external pension funds and pension plans are likewise included in pension expenses.

€ million	2020	2019
Cost of materials	**–2,030.5**	–2,203.7
Personnel expenses		
Wages and salaries	**–1,040.7**	–990.6
Social benefits and expenses for aid	**–176.2**	–171.0
State pension contributions	**58.8**	60.2
Social security contributions	**–117.4**	–110.8
Pension expenses	**–112.5**	–92.2
Contributions to state pensions	**–58.8**	–60.2
Pension expenses	**–171.3**	–152.4
Total personnel expenses	**–1,329.4**	–1,253.8

The auditors' fee in the amount of € 0.8 million (versus € 0.8 million a year earlier) relates to KPMG AG Wirtschaftsprüfungsgesellschaft. Of this amount, € 0.6 million (versus € 0.7 million) was for financial statement auditing services and € 0.2 Mio. € (versus € 0.1 million) for other attestation services. The other attestation services included attestations 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	2020	2019
Expenses for auditors' fees		
Audit services	**0.6**	**0.7**
Other attestation services	**0.2**	**0.1**
Tax consultation services	**–**	**–**
Other services	**–**	**–**
Total	**0.8**	**0.8**

20 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 2019 amounted to € 24.8 million, or 0.50 € per dividend-bearing share. No allocations to retained earnings were made at Wacker Chemie AG for fiscal 2019.

For 2020, the Executive Board of Wacker Chemie AG has proposed a dividend of 2.00 € per share. The dividend proposal relates solely to dividend-bearing shares, i.e. excluding treasury shares. Responsibility for accepting or rejecting this proposal rests with the Annual Shareholders' Meeting of Wacker Chemie AG. Subject to acceptance of the proposal, an amount of € 99,355,966.00 will be distributed to the 49,677,983 no-par-value shares not held by the company.

	2020	2019
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 (€)	**2.00**	0.50
Distribution per dividend-bearing common share (€)	**2.00**	0.50
Net result for the year attributable to Wacker Chemie AG shareholders (€ million)	**189.2**	-642.6
Earnings due to common shares (€ million)	**189.2**	-642.6
Earnings per common share (average, €)	**3.81**	-12.94
Earnings per common share (as of reporting date, €)	**3.81**	-12.94

21 Financial Instruments

The following table shows financial assets and liabilities by measurement category and class. 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 their carrying amount, as there is no material difference between the two values.

Financial Assets and Liabilities by Measurement Category and Class as of Dec. 31, 2020

€ million		Measurement pursuant to IFRS 9			Measurement pursuant to IFRS 16	
	Balance sheet carrying amount Dec.31, 2020	(Amortized) cost	Fair value through profit and loss	Fair value through other comprehensive income	(Amortized) cost	Fair value as of Dec.31, 2020
Trade receivables	627.0	627.0	–	–	–	627.0
Other financial assets	86.9	61.1	15.5	10.3	–	86.9
Loans and other financial assets, measured at amortized cost	–	61.1	–	–	–	61.1
Investments in equity instruments (FVPL)	–	–	11.9	–	–	11.9
Derivatives that do not qualify for hedge accounting (FVPL)	–	–	3.6	–	–	3.6
Derivatives that qualify for hedge accounting	–	–	–	10.3	–	10.3
Securities and fixed-term deposits	712.0	597.4	114.6	–	–	712.0
Securities and fixed-term deposits (measured at amortized cost)	–	597.4	–	–	–	597.4
Securities (FVPL)	–	–	114.6	–	–	114.6
Cash and cash equivalents (measured at amortized cost)	626.0	626.0	–	–	–	626.0
Total financial assets	2,051.9	–	–	–	–	2,051.9
Financial liabilities (measured at amortized cost)	1,282.7	1,282.7	–	–	–	1,304.4
Lease liabilities	122.8	–	–	–	122.8	122.8
Trade payables (measured at amortized cost)	424.2	424.2	–	–	–	424.2
Other financial liabilities	15.6	15.2	0.4	–	–	15.6
Financial liabilities recognized at amortized cost	–	15.2	–	–	–	15.2
Derivatives that do not qualify for hedge accounting (FVPL)	–	–	0.4	–	–	0.4
Derivatives that qualify for hedge accounting	–	–	–	–	–	–
Total financial liabilities	1,845.3	–	–	–	–	1,867.0

Financial Assets and Liabilities by Measurement Category and Class as of Dec. 31, 2019

€ million			Measurement pursuant to IFRS 9		Measurement pursuant to IFRS 16	
	Balance sheet carrying amount Dec.31, 2020	(Amortized) cost	Fair value through profit and loss	Fair value through other comprehensive income	(Amortized) cost	Fair value as of Dec.31, 2020
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 (FVPL)	–	–	11.6	–	–	11.6
Derivatives that do not qualify for hedge accounting (FVPL)	–	–	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 (FVPL)	–	–	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 (FVPL)	–	–	4.3	–	–	4.3
Derivatives that qualify for hedge accounting	–	–	–	1.7	–	1.7
Total financial liabilities	1,628.3	–	–	–	–	1,637.3

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 applicable as of the reporting date. Certain securities (funds) and investments in equity instruments are classified as fair value through profit or loss (FVTPL). Investments in equity instruments 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 amount of trade payables and other financial liabilities corresponds to their fair value. The fair value of financing liabilities constitutes 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 measured at cost, as no observable prices are available for them.

The following table shows the net gains and losses from financial instruments.

€ million	2020	2019
Net gains / losses from financial instruments		
Financial assets measured at amortized cost	**–10.0**	8.8
Assets / liabilities measured at fair value through profit or loss (FVTPL)	**18.6**	0.4
Financial liabilities measured at amortized cost	**–34.6**	–24.8
Total	**–26.0**	–15.6

The net result of the category “financial assets measured at amortized cost” primarily comprises: net losses/gains from foreign currency translation, interest income from financial assets, fixed-term deposits and bank deposits, and loss allowances.

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.” This item also contains distributions stemming from funds as well as fair value changes in investments in equity instruments.

Interest income from financial assets that are not recognized at fair value through profit or loss amounted to € 8.1 million, compared with the prior-year figure of € 10.4 million. This income mainly comprised interest on bank deposits, fixed-term deposits and loans.

Interest expense from financial liabilities that are not recognized at fair value through profit or loss amounted to € 21.7 million, versus € 20.9 million in the prior year, and was mainly attributable to financing liabilities.

The net losses in the category “Financial liabilities measured at amortized cost” primarily comprise interest expenses on bank liabilities and other financing 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 financing 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 that are measured at cost in the statement of financial position and whose fair values are given in the Notes:

Fair Value Hierarchy 2020

€ million	Fair value hierarchy			Total
	Level 1	Level 2	Level 3	
As of December 31, 2020				
Financial assets measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVPL)	–	3.6	–	3.6
Investments in equity instruments – trading (FVPL)	–	–	11.9	11.9
Fair value through other comprehensive income / through profit or loss				
Derivatives that qualify for hedge accounting	–	10.3	–	10.3
Securities – trading (FVPL)	114.6	–	–	114.6
Total	114.6	13.9	11.9	140.4
Financial assets measured at amortized cost				
Loans – held-to-collect	–	39.5	–	39.5
Total	–	39.5	–	39.5
Financial liabilities measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVPL)	–	0.4	–	0.4
Fair value through other comprehensive income / through profit or loss				
Derivatives that qualify for hedge accounting	–	–	–	–
Total	–	0.4	–	0.4
Financial liabilities measured at amortized cost				
Financial liabilities	–	1,304.4	–	1,304.4
Total	–	1,304.4	–	1,304.4

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 (FVPL)	–	2.7	–	2.7
Investments in equity instruments – trading (FVPL)	–	–	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 – trading (FVPL)	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 (FVPL)	–	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

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 2020.

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.

Fair value calculations contain 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 financing liabilities are measured at amortized cost. However, their fair values must be disclosed 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 financing 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 € 11.9 million (versus € 11.6 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 are 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, 2020.

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, 2020. 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. In order to counter financial risks, WACKER has put in place a risk management system, which is monitored by the Supervisory Board. The fundamental purpose of this system is to identify, analyze, coordinate, monitor and communicate risks in a timely manner. The Executive Board receives regular analyses on the extent of these 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 both 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, market risks are controlled centrally within the Group. 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. In the area of operations, outstanding receivables and default risks are continually monitored and hedged by means of 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 Financing Liabilities.

» See Note 16

Market Risk

Market risk refers to the risk that the fair value or future cash flow 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. Since the largest share of foreign-currency cash flows is in US dollars, that currency is the only relevant risk variable for the sensitivity analysis as defined in IFRS 7. 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 € -39 million as of December 31, 2020 and of € -43 million as of December 31, 2019. The effect from items designated as cash flow hedges would have increased equity before income taxes by € 15.0 million (versus € 18.9 million a year earlier). The Group's currency exposure amounted to € 390 million as of December 31, 2020 (versus € 435 million in the prior year).

Interest-Rate Risk

The interest-rate risk results mainly from financing 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 financing 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, 2020. If the market interest rate on December 31, 2020, had been 100 basis points higher (December 31, 2019: higher), the interest result would have been € 9.0 million (€ 4.0 million) higher (higher).

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. Commodity forward contracts are used only to a minor extent, namely to cover electricity 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 stem 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 in accordance with 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 used in particular for the US dollar and Japanese yen. Potential interest rate hedges are based on the maturities of the underlying transactions.

Operational foreign-exchange hedging relates to 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. In the case of the Japanese yen, hedges were concluded that run until 2027. The hedged cash flows impact 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 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 financing 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 2021 is about 45 percent hedged. The average hedging ratio for operational hedging in US dollars is around 50 percent. The hedging ratio for sales in Japanese yen until 2027 is roughly 25 percent.

In 2020, the accumulated income and expenses recorded directly in equity included a pre-tax result from cash flow hedges amounting to € 13.2 million (versus € 4.1 million in the prior year), of which € -1.9 million concerned closed cash flow hedges. During 2020, € 2.6 million was reclassified to the statement of income, after € 14.4 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. No gains or losses from ineffective hedge accounting were recorded in the result for the period, 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, 2020	Dec. 31, 2019
Forward exchange contracts for strategic hedging USD		
Carrying amount liability	**–**	–1.7
Carrying amount receivable	**9.3**	0.6
Nominal amount	**–137.4**	–163.4
Of which noncurrent	**–14.6**	–8.7
Change in value of hedged underlying transaction used to determine the effectiveness of hedging relationship	**9.3**	–1.1
Average hedging rate USD / €	**1.16**	1.15
Forward exchange contracts for strategic hedging JPY	**0**	0
Carrying amount liability	**–**	–
Carrying amount receivable	**1.0**	–
Nominal amount	**–33.8**	–
Of which noncurrent	**–33.8**	–
Change in value of hedged underlying transaction used to determine the effectiveness of hedging relationship	**1.0**	–
Average hedging rate JPY / €	**124.40**	–

Foreign exchange derivatives mainly comprised forwards, options and swaps amounting to US$ 565.5 million, JPY 4.6 billion, CNY 180 million and € 80.0 million (versus US$ 688.0 million, JPY 850 million and € 95.0 million a year earlier). Derivatives with market values of € +12.2 million fall due in 2021.

Other derivatives concern electricity futures traded in the Norwegian market for a nominal amount of € 2.8 million (€ 8.5 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 in the electricity market. Derivatives with maturities until 2021 were concluded. The average hedging rate was € 23.3 / MWh (€ 25.3 / MWh in the prior year).

€ million	Dec. 31, 2020		Dec. 31, 2019	
	Nominal values	Market values	Nominal values	Market values
Forward exchange contracts	**438.6**	**11.2**	508.2	–2.0
Foreign exchange swaps	**80.0**	**–0.3**	130.9	–2.3
Foreign exchange options	**105.6**	**2.6**	74.7	–
Interest rate derivatives	**110.0**	**–**	–	–
Other derivatives	**2.8**	**0.0**	8.5	3.8
Total	**737.0**	**13.5**	722.3	–0.5
Market values of derivative financial instruments used for hedge accounting	**–**	**10.3**	–	–1.1

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, 2020		Dec. 31, 2019	
	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	**15.6**	**–2.1**	6.7	–7.3
II				
Gross amounts of recognized financial assets / liabilities netted out in the statement of financial position	**–1.7**	**1.7**	–1.2	1.2
I + II				
Net amounts of financial assets / liabilities presented in the statement of financial position	**13.9**	**–0.4**	5.5	–6.1
Related amounts not netted out in the statement of financial position	**–0.1**	**0.1**	–1.4	1.4
Net amount	**13.8**	**–0.3**	4.1	–4.7

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.

22 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 any 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 on the basis of the published consolidated statement 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 € 0.2 million (versus € 2.5 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.

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, the 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 financing liabilities:

Cash and Non-Cash Changes in Financing Liabilities

€ million	Jan. 1, 2020	Cash changes	Non-cash changes			Dec. 31, 2020
			Acquisitions/ disposals	Exchange-rate-related changes	Other	
Liabilities to banks	816.4	297.5	–	–5.9	–3.5	1,104.5
Lease obligations	137.8	–31.8	19.0	–2.2	–	122.8
Other financial liabilities	304.7	–120.4	–	–11.6	5.5	178.2
Financial liabilities	1,258.9	145.3	19.0	–19.7	2.0	1,405.5

Please see Note 11 for more details on the composition of funds comprising cash and cash equivalents.

» See Note 11

23 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 income from the equity-accounted 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 equity method, is also recognized under "Other." For the geographical regions, 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 are 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 of impairments. 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 impairments 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.

The assets reported for the segments generally comprise all the assets of each segment. Financial receivables, cash and cash equivalents, current tax receivables and deferred tax assets, however, are allocated to the “Other” segment.

The liabilities shown for the segments represent all of their liabilities – except current and deferred tax liabilities, which are shown under “Other.” The Group’s financing 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	2020	2019
SILICONES	**–0.2**	–2.4
POLYMERS	**–0.2**	0.1
BIOSOLUTIONS	**–0.3**	0.2
POLYSILICON	**17.4**	29.5
Other	**7.5**	17.8
Total	**24.2**	45.2

Material 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 € -1.5 million (after € -3.6 million in the prior year), and to the “Other” segment, at € 8.1 million (after € 3.7 million). A change of € 2.7 million (after € 2.7 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	2020	2019
SILICONES	**–122.8**	–134.5
POLYMERS	**–42.6**	–45.5
BIOSOLUTIONS	**–11.9**	–12.4
POLYSILICON	**–72.1**	–82.3
Other	**–231.8**	–267.6
Total	**–481.2**	–542.3

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 € 631.1 million in the USA (after € 686.4 million in the previous year) and € 513.2 million in China (after € 537.8 million).

Measured by the customer location in the USA and China, the respective sales generated were € 638.6 million (after € 701.6 million) and € 956.1 million (versus € 954.6 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	2020	2019
Operating result of reporting segments	**262.3**	–536.6
Consolidation	**0.5**	0.3
Group EBIT	**262.8**	–536.3
Financial result	**–44.9**	–54.9
Income before taxes	**217.9**	–591.2
Income taxes	**–15.6**	–38.4
Net income for the year	**202.3**	–629.6

24 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)	5,010	–2	100.00	0
3 Wacker-Chemie Versicherungsvermittlung GmbH, Munich	Other	a), b)	26	–	100.00	0
4 Wacker-Chemie Beteiligungsfinanzierungs-GmbH, Munich	-		28	–1	100.00	0
5 Wacker Polysilicon Geschäftsführungs-GmbH, Nünchritz	-		25	–1	100.00	0
6 Wacker-Chemie Erste Venture GmbH, Munich	-		79	–	100.00	0
7 Wacker-Chemie Zweite Venture GmbH, Munich	-		34	–1	100.00	0
8 Wacker-Chemie Sechste Venture GmbH, Munich	-		26	–1	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		2,119,281	–5,543	100.00	0
16 Wacker Chemicals Ltd., Bracknell, Great Britain	Sales and distribution		914	363	100.00	0
17 Wacker Chemie Italia S. r. l., Segrate, Italy	Sales and distribution		14,233	5,137	100.00	0
18 Wacker-Chemie Benelux B. V., Zaanstad, Netherlands	Sales and distribution		642	287	100.00	15
19 Wacker Chimie S. A. S., Lyon, France	Sales and distribution		2,053	724	100.00	0
20 Wacker-Kemi AB, Solna, Sweden	Sales and distribution		1,028	440	100.00	0
21 Wacker Química Ibérica, S. A., Barcelona, Spain	Sales and distribution		1,313	565	100.00	0
22 Wacker-Chemie, s. r. o., Pilsen, Czech Republic	Sales and distribution, Silicones		3,655	237	100.00	0
23 Wacker-Chemia Polska Sp. z o. o., Warsaw, Poland	Sales and distribution		1,423	830	100.00	0
24 Wacker Chemie Hungary Kft., Budapest, Hungary	Sales and distribution		1,005	328	100.00	0
25 LLC Wacker Chemie Rus, Moscow, Russia	Sales and distribution		819	318	100.00	0
26 Wacker Chemicals Norway AS, Holla, Hemne, Norway	Silicones		91,469	–2,682	100.00	15
27 Wacker Kimya Tic. Ltd. Sti., Istanbul, Turkey	Sales and distribution		314	259	100.00	15
28 Wacker Biosolutions León, S. L. U., León, Spain	Biosolutions		16,459	556	100.00	15
29 Wacker Biotech B. V., Amsterdam, Netherlands	Biosolutions		12,680	–4,175	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 - Sao Paulo, Brazil	Silicones, Polymers, Biosolutions		23,270	6,535	99,90 0,10	0 2
31 Wacker Mexicana S. A. de C. V., Mexico, D. F., Mexico	Sales and distribution		1,683	397	100.00	0
32 Wacker Chemical Corp., Adrian, Michigan, USA	Silicones, Polymers, Biosolutions		2,066,099	–35,787	100.00	15
33 Wacker Polysilicon North America, L.L.C., Cleveland, Tennessee, USA	Polysilicon		1,608,387	17,313	100.00	32
34 Wacker Colombia S. A. S., Bogotá, Colombia	Sales and distribution		190	36	100.00	15
Asia						
35 Wacker Asahikasei Silicone Co. Ltd., Tokyo, Japan	Silicones		15,681	1,663	50,00[3]	0
36 Wacker Chemicals (South Asia) Pte. Ltd., Singapore	Sales and distribution		3,099	764	100.00	0
37 Wacker Chemicals Hong Kong Ltd., Hong Kong, China	Sales and distribution		2,624	176	100.00	0
38 Wacker Metroark Chemicals Pvt. Ltd. Kolkata, India	Silicones		81,329	18,527	51.00	0
39 Wacker Chemicals Korea Inc Seongnam-si, South Korea	Silicones, Polymers		144,746	19,658	100.00	15
40 Wacker Chemicals East Asia Ltd., Tokyo, Japan	Sales and distribution		469	39	100.00	0
41 Wacker Chemicals Fumed Silica (Zhangjiagang) Holding Co. Private Ltd., Singapore	Holding		47,898	–19	51.00	0
42 Wacker Chemicals Fumed Silica (Zhangjiagang) Co., Ltd., Zhangjiagang, China	Silicones		38,619	6,490	100.00	41
43 Wacker Chemicals (Zhangjiagang) Co., Ltd., Zhangjiagang, China	Silicones		79,794	9,537	100.00	44
44 Wacker Chemicals (China) Co., Ltd., Shanghai, China	Sales and distribution		248,279	19,320	100.00	0
45 Wacker Chemicals (Nanjing) Co., Ltd., Nanjing, China	Polymers, Biosolutions		79,087	4,372	100.00	44
46 Wacker Chemie India Pvt. Ltd., Mumbai, India	Sales and distribution		3,619	86	99,00 1,00	15 0
47 PT. Wacker Chemicals Indonesia, Tangerang, Indonesia	Silicones, Polymers, Biosolutions		227	39	99,00 1,00	15 2
Other Regions						
48 Wacker Chemicals Australia Pty. Ltd., Mulgrave, Melbourne, Australia	Sales and distribution		831	190	100.00	0
49 Wacker Chemicals Middle East FZE, Dubai, UAE	Sales and distribution		3,785	768	100.00	0
Joint Ventures/ Associates						
50 Dow Siloxane (Zhangjiagang) Holding Co. Private Ltd., Singapore[2]	Silicones		397,270	6,691	25.00	0
51 Wacker Dymatic Silicones (Shunde) Co., Ltd., Foshan, China	Silicones		24,608	3,577	50.00	44
52 Siltronic AG, Munich[2]	Other		871,795	160,784	30.83	0
53 Nexeon Ltd., Abingdon, Oxfordshire, United Kingdom[4]	Other		19,699	–7,699	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 AG

[2] Only direct holdings in the relevant parent companies are listed; figures from consolidated financial statements in accordance with IFRS

[3] Control on the basis of potential voting rights

[4] Figures refer to the annual financial statements in accordance with UK GAAP for the period January 1 to December 31, 2019

25 Related Party Disclosures

IAS 24 stipulates that a person or entity 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 Board 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. It concerns the renting of office space and exchange of services, and is of a limited extent. 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. 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. As of December 31, 2020, lease liabilities totaled € 13.3 million (after € 48.1 million in the prior year). Interest expense amounted to € 0.5 million in 2020 (after € 0.6 million a year earlier). Additional liabilities of € 2.6 million (Dec. 31, 2019: € 2.7 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.

Related Party Disclosures

€ million	2020				2019			
	Income	Expenses	Receivables	Liabilities	Income	Expenses	Receivables	Liabilities
Associates	**150.4**	**112.3**	**14.4**	**8.9**	148.0	133.4	7.9	16.1
Joint Ventures	**4.1**	**1.3**	**0.7**	**0.4**	4.7	1.4	1.0	0.2

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 18

In addition, a loan to an associate in the amount of € 39.5 million was recognized as a current financial receivable (versus € 91.1 million in the previous year, of which € 50.8 million was current).

Information Regarding Compensation for the Executive and Supervisory Boards:

Compensation for the Executive and Supervisory Boards

€	Fixed compensation	Variable compensation	Retirement benefit plan[1]	Total
Executive Board compensation 2020	2,913,416	3,138,925	1,651,149	7,703,490
Executive Board compensation 2019	2,910,069	3,047,500	1,403,332	7,360,901
Pension commitments for active members of the Executive Board 2020				42,230,614
Pension commitments for active members of the Executive Board 2019				36,731,498
Compensation for former members of the Executive Board and their surviving dependents 2020				1,906,493
Compensation for former members of the Executive Board and their surviving dependents 2019				2,255,993
Pension commitments for former members of the Executive Board and their surviving dependents 2020				36,109,573
Pension commitments for former members of the Executive Board and their surviving dependents 2019				35,727,056
Supervisory Board compensation 2020	2,165,000	–	–	2,165,000
Supervisory Board compensation 2019	2,159,877	–	–	2,159,877

[1] The compensation for retirement benefits is based on service cost. Interest expense amounted to € 459,144, after € 609,219 in the prior year.

The compensation report is part of the management report and contains detailed information on Executive Board compensation which, under German commercial law (HGB), forms part of the Notes.

Other business relations with members of the Executive and Supervisory 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/de-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.

26 Events after the Reporting Date

On December 9, 2020, Wacker Chemie AG signed an agreement with GlobalWafers Co. Ltd., a Taiwanese competitor of Siltronic AG, to transfer WACKER's Siltronic stake of 30.83 percent to GlobalWafers as part of the latter's takeover bid for the company. Under the agreement, GlobalWafers Co. Ltd. is to acquire at least 50 percent of the shares in Siltronic AG. The offer period ended on February 10, 2021, with more than 50 percent of Siltronic's shareholders accepting the offer price of € 145 per share. The takeover is subject to approval by the antitrust authorities.

WACKER's legal and organizational structure remained largely unchanged in the reporting year.

Munich, March 4, 2021
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 department 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 given an unqualified audit opinion. 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 23, 2021. For information about the Supervisory Board's audit, please refer to its report.

Assurance by the Legal Representatives in Accordance with Sections 297 (2) and 315 (1) of the German Commercial Code (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, and describes the principal opportunities and risks associated with the Group's expected development.

MUNICH, MARCH 4, 2021
WACKER CHEMIE AG

Rudolf Staudigl — Christian Hartel

Tobias Ohler — Auguste Willems

Reproduction of the Independent Auditor's Report

Based on the results of our audit, we have issued the following unqualified audit opinion:

Independent Auditor's Report

To Wacker Chemie AG, Munich

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Opinions

We have audited the consolidated financial statements of Wacker Chemie AG, Munich, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2020, the statement of income, statement of comprehensive income, statement of changes in equity and statement of cash flows for the financial year from 1 January to 31 December 2020, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of Wacker Chemie AG, Munich, for the financial year from 1 January to 31 December 2020. In accordance with German legal requirements, we have not audited the content of those components of the combined management report specified in the "Other Information" section of our 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 31 December 2020, and of its financial performance for the financial year from 1 January to 31 December 2020, and

— the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined 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 group management report does not cover the content of those components of the group management report specified in the "Other Information" section of the auditor's report.

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 combined management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and 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 Combined 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)(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 combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of

the consolidated financial statements for the financial year from 1 January to 31 December 2020. 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.

Recognition and measurement of provisions based on the "Shape the Future" efficiency programme

For further information on the "Shape the Future" efficiency programme, please refer to Section "Provisions for restructuring costs" in the consolidated financial statements and the sections "Goals and Strategies" and "Employees" in the combined management report. For information on the accounting policies applied, please refer to the description 'Accounting principles and methods' in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

The Group has agreed voluntary measures, such as retirement, partial retirement arrangements and termination agreements, in a group works agreement.

As at the reporting date, provisions for restructuring costs in the amount of EUR 48.0 million to implement the planned job cuts as part of the temporary voluntary "Shape the Future" programme have been set aside and recognised accordingly in other operating expenses. The restructuring programme includes measures that are benefits from the current employment relationship as well as termination benefits.

The distinction between the individual measures within the meaning of IAS 19 has a considerable effect on the recording of expenses in the financial year and can be complex due to the various structuring forms.

In cases in which post-employment benefits are pledged for the termination of the employment relationship and extend for some time until the actual termination of the employment relationship, it is necessary to evaluate whether this is a termination benefit or a post-employment benefit. For termination benefits, the incurring of an obligation due to the termination of employment is justified regardless of whether work performance is rendered in future. An entity must disclose such benefit immediately as liability and expense when it can no longer withdraw the offer or when the costs for a restructuring, which include termination benefits, are reported. For post-employment benefits, the expense is distributed over the length of service.

The recognition and measurement of provisions for restructuring costs are complex and depend on the structuring of the group works agreement, the termination payment amounts and the release of employees.

In view of the above, there is a risk for the consolidated financial statements that the post-employment benefits were not recorded and measured in an appropriate amount in the consolidated financial statements.

OUR AUDIT APPROACH

Based on explanations from employees of Corporate Accounting and the Human Resources Department as well as evaluation of the group works agreement and the termination agreements based thereon, we obtained an understanding of the measures under the "Shape the Future" efficiency programme and the process for determining provision amounts.

We critically scrutinised the accounting implications on the basis of the various measures. In this regard we critically evaluated in particular the distinction between post-employment benefits and termination benefits within the meaning of IAS 19.

Using a risk-based selection of individual obligations, we reconciled the underlying data necessary for measuring the obligation with the contractual bases and personnel files and verified the calculation. This also included the review of the conformity of the calculation method with the group works agreement.

OUR OBSERVATIONS

The classification of the voluntary measures of the "Shape the Future" efficiency programme offered in the financial year and the recognition and measurement of the obligations based on this are consistent with the applicable accounting policies.

Impairment testing of property, plant and equipment of the WACKER POLYSILICON segment

For further information on the presentation of the WACKER POLYSILICON segment in the reporting year, please refer to 'Segment information by division' in the consolidated financial statements and 'Segment reporting' in the combined management report. For information on the accounting policies applied, please refer to the description 'Accounting principles and methods' in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

The carrying amount of the assets in the WACKER POLYSILICON segment amounted to EUR 1.0 billion as at the reporting date. In the prior year, an impairment loss of EUR 760 million was recorded for the property, plant and equipment of this segment. Apart from depreciation, no further impairment loss or reversal was reported in financial year 2020. The significant photovoltaic market for the segment is characterised by a high level of volatility and competition. As a result, the business performance of the WACKER POLYSILICON segment was influenced by strong price fluctuations in the past. After declining in 2019, the market price for polysilicon stabilised in line with the prior-year's expectations in financial year 2020. Revenue in the WACKER POLYSILICON segment rose slightly in financial year 2020 due to higher sales volumes and an improved product mix. Nevertheless, high market price volatility is also expected in the future. The production plants in Burghausen, Nünchritz and Charleston, which form a cash-generating unit, are allocated to this segment.

Property, plant and equipment must be tested for impairment if there are specific indications of potential impairment. Furthermore, an entity is to assess at each reporting date whether there is any indication that an impairment loss recognised for an asset in prior periods may no longer exist or may have decreased. Should such an indication exist or cease to exist, the recoverable amount of the asset of the cash-generating unit is to be estimated, which is equivalent to the higher of fair value less costs to sell and value in use. WACKER has used value in use for this calculation.

Operational planning and, thus, the assessment of whether property, plant and equipment of the WACKER POLYSILICON segment is impaired requires judgement and assumptions regarding the discount rate and numerous forward-looking estimates – e.g. regarding the future demand of volumes based on the anticipated further construction of photovoltaic plants and the development of the semiconductor market (which is the main sales market for polysilicon), price development, global expansion of polysilicon production capacities and the cash inflows and outflows expected as a result. In view of the above, there is the risk for the consolidated financial statements that the property, plant and equipment of the WACKER POLYSILICON segment recognised at the reporting date was not recorded in an appropriate amount.

OUR AUDIT APPROACH

We obtained an understanding of the Company's process for the identification of indications of impairment and reversal of impairment losses as well as for the determination of the recoverable amount based on explanations provided by employees of Corporate Accounting. We analysed the indications for changes in valuation identified by the Company and evaluated this based on the information obtained in the course of our audit. We obtained the impairment test prepared by the Company for the WACKER POLYSILICON segment. In discussions with the Executive board, representatives of the WACKER POLYSILICON segment and Corporate Accounting, among others, we received an explanation of the assumptions and parameters used for measurement and obtained an understanding of the planning process. With the involvement of our valuation experts, we evaluated the measurement assumptions and parameters as well as the computational accuracy and the conformity of the Company's valuation model with IFRS. In addition, we evaluated the appropriateness of the assumptions and parameters underlying the expected cash inflows and outflows by comparison with the corporate planning approved by the Supervisory Board and by comparison with the general and sector-specific market expectations. The latter was based, in particular, on long-term external forecasts regarding photovoltaic installation volumes and the development of the semi-conductor market.

Among other approaches, we used information from prior periods as well as current interim results to analyse adherence to budget. In order to take account of forecast uncertainty, we also investigated the impact of potential changes to the discount rate and expected EBITDA on the recoverable amount by recalculating alternative scenarios of the client and comparing these with the Company's measurements (sensitivity analysis).

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 and/or the Supervisory Board are/is responsible for the other information. The other information comprises:

- the combined corporate governance statement for the Company and the Group referred to in the combined management report,
- the non-financial statement in the form of a non-financial statement, which is referred to in the combined management report,
- information extraneous to the combined management report and marked as unaudited.

The other information also includes the remaining parts of the annual report.

The other information does not include the consolidated financial statements, the group management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the combined 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

- is materially inconsistent with the consolidated financial statements, with the group management report information audited for content 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 Combined Management Report

Management is responsible for the preparation of 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 Group's assets, liabilities, financial position and financial performance. 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 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 combined 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 combined 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 combined 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 combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined 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 combined 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 combined 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 combined management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, 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 controls.
- 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 combined 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 combined 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 an opinion on the consolidated financial statements and the combined 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 combined management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant inde-

pendence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Assurance Report in accordance with Section 317 (3b) HGB on the Electronic Reproduction of the Consolidated Financial Statements and the Combined Management Report Prepared for Publication Purposes

We have performed an assurance engagement in accordance with Section 317 (3b) HGB to obtain reasonable assurance about whether the electronic reproduction of the consolidated financial statements and the combined group management report (hereinafter the “ESEF documents”) contained in the file that can be downloaded by the issuer from the electronic client portal with access protection, „wacker_Konzern.zip“ (SHA256-Hashwert: dfe36d1f33f0825a718f2303182695fbe6b7f46d5 a24ec366155decca02687a1)and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance engagement only extends to the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor any other information contained in the above-mentioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the combined group management report contained in the above-mentioned electronic file, which can be downloaded by the issuer from the electronic client portal with access protection, and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the above-mentioned file beyond this reasonable assurance conclusion and our audit opinion on the accompanying consolidated financial statements and the accompanying combined management report for the financial year from 1 January 2020 to 31 December 2020 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report" above.

We conducted our assessment of the reproduction of the consolidated financial statements and the combined group management report contained in the above-mentioned electronic file, which can be downloaded by the issuer from the electronic client portal with access protection, in accordance with Section 317 (3b) HGB and the Exposure Draft of the IDW Assurance Standard: Assurance in accordance with Section 317 (3b) HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410). Accordingly, our responsibilities are further described below. Our audit firm has applied the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QS 1).

The Company’s management is responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the combined management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the Company's management is responsible for the internal controls they consider necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of Section 328 (1) HGB for the electronic reporting format, whether due to fraud or error.

The Company’s management is also responsible for the submission of the ESEF documents together with the auditor’s report and the attached audited consolidated financial statements and audited combined management report as well as other documents to be published to the operator of the German Federal Gazette [Bundesanzeiger].

The Supervisory Board is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of Section 328 (1) HGB, whether due to fraud or error. We exercise professional judgement and maintain professional scepticism throughout the assurance engagement. We also:

- Identify and assess the risks of material non-compliance with the requirements of Section 328 (1) HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance conclusion.
- Obtain an understanding of internal control relevant to the assessment of the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e. whether the electronic file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815 on the technical specification for this electronic file.
- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited consolidated financial statements and the audited combined management report.
- Evaluate whether tagging the ESEF documents with Inline XBRL technology (iXBRL) provides an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor at the Annual General Meeting on 4 August 2020. We were engaged by the Supervisory Board on 26 December 2020. We have been the group auditor of Wacker Chemie AG, Munich, without interruption since financial year 2006.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

In addition to the audit of the consolidated financial statements, we have provided to the audited entity or to entities controlled by it the following services that are not individually disclosed in the consolidated financial statements or in the combined management report:

We audited the annual financial statements of Wacker Chemie AG. Reviews of interim financial statements of the group entities were integrated into the audit. Furthermore, other statutory or contractually agreed audits were performed, such as audits in accordance with the German Renewable Energies Act [EEG], EMIR assessments pursuant to Section 20 of the German Securities Trading Act [WpHG], certification of electricity price compensation and an assurance engagement for the non-financial statement.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Johannes Hanshen.

MUNICH, 4TH MARCH, 2021

KPMG AG
WIRTSCHAFTSPRÜFUNGSGESELLSCHAFT

ORIGINAL GERMAN VERSION SIGNED BY:

ANDREJEWSKI	**HANSHEN**
WIRTSCHAFTSPRÜFER	**WIRTSCHAFTSPRÜFER**
[GERMAN PUBLIC AUDITOR]	**[GERMAN PUBLIC AUDITOR]**

Further Information

185 — 228

Like human skin, blackberry leaves react sensitively to disinfectants. Tests on such leaves underscore the protective effect of WACKER silicones in hand sanitizers.

d

Further Information

Supervisory Board, Executive Board, Declaration on Corporate Management, and Non-Financial Report

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
Wacker Chemie AG

Prof. Andreas 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

Chairman of the Advisory Council
ATHOS Service GmbH (since June 15, 2020)

Member of the Advisory Board
ATHOS Service GmbH (since June 14, 2020)
Lürssen Werft GmbH & Co. KG (until November 12, 2020)

Dr. Gregor Biebl
Munich
Director General
Bavarian State Chancellery

Matthias Biebl
Munich
Attorney and in-house lawyer
UniCredit Bank AG

Markus Hautmann
(since January 1, 2021)

Schwandorf
District Chairman of the IG BCE labor union, Altötting

Member of the Supervisory Board
SMP Deutschland GmbH
Siltronic AG (since January 1, 2021)

Ingrid Heindl*
Reischach
Member of the Employee Council, Burghausen Plant,
Wacker Chemie AG

Konrad Kammergruber*
(until September 30, 2020)

Burghausen
Former Director of Infrastructure Services,
Wacker Chemie AG

Jörg Kammermann*
(until December 31, 2020)

Burghausen
Former District Chairman of the IG BCE labor union, Altötting

Member of the Supervisory Board
Siltronic AG (until December 31, 2020)

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 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

Executive Board

Beate Rohrig*
Unterhaching
Regional head of the IG BCE labor union, Bavaria

Member of the Supervisory Board
ADIDAS AG
Evonik Nutrition & Care GmbH (until July 1, 2020)

Dr. Birgit Schwab*
(since October 1, 2020)

Burghausen
Head of Quality Management, WACKER BIOSOLUTIONS

Member of the Supervisory Board
Burghauser Wohnbau GmbH (since May 1, 2020)

Ann-Sophie Wacker
Munich
Attorney

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
Spielvereinigung Unterhaching (since February 3, 2020)
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
Research and 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)

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 Declaration, the Executive Board provides details – also for the Supervisory Board – on corporate governance in accordance with Principle 22 of the German Corporate Governance Code, as amended December 16, 2019 (the "Code"), and Sections 289f and 315d of the German Commercial Code (HGB).

Declaration of Conformity 2020 Issued by the Executive Board and Supervisory Board of Wacker Chemie AG

In 2020, the Executive and Supervisory Boards dealt in detail with the company's corporate governance and the recommendations of the Code. The Executive and Supervisory Boards resolved in December 2020 to issue the following Declaration of Conformity. It is available to the general public on the company's website and can be accessed – together with other declarations of conformity that are no longer applicable – for a period of at least five years.

1. General Declaration Pursuant to Section 161 of the German Stock Corporation Act (AktG)

In December 2019, 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 below under 2 a), e), f), g), i), j), k) and l), and it will comply with the recommendations of the Code as amended on December 16, 2019, with the exceptions listed below under 2 a), b), c), d), e), f), g) and h).

2. Exceptions

a) Defining Concrete Objectives Regarding the Number of Independent Members of the Supervisory Board (Section 5.4.1, paragraph 2; Recommendation C.1)

The shareholder representatives on the Supervisory Board of Wacker Chemie AG believe that the Supervisory Board, as it is composed at present, includes an adequate number of independent members when the ownership structure is considered. 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.

b) No Simultaneous Appointment of an Executive Board Member as Supervisory Board Chair of a Non-Group Listed Company (Recommendation C.5)

Our Executive Board member Dr. Tobias Ohler is chairman of the Supervisory Board of Siltronic AG. Prior to its deconsolidation in March 2017, Siltronic AG was a subsidiary and a business division of Wacker Chemie AG, and Dr. Ohler had specific responsibility for it on the Executive Board. The workload resulting from that function was at least as high then as the workload associated with his activity as Supervisory Board chair is now. We therefore have no reason to assume that Dr. Ohler cannot dedicate sufficient time to either of his two offices. Accordingly, we do not consider it reasonable for Dr. Ohler to step down as chair of the Supervisory Board of Siltronic AG prematurely, given that it is appropriate for the largest shareholder of Siltronic AG to appoint the chair of its Supervisory Board.

c) More Than Half of Shareholder Representatives to Be Independent from the Company and Its Executive Board (Recommendation C.7)

Pursuant to the new definition of "independent" in the Code, persons who have been members of the same supervisory board for more than 12 years are no longer considered independent from the company and its executive board. This "excessively long" membership criterion covers more than half of the shareholder representatives on the Supervisory Board of Wacker Chemie AG – with one shareholder representative covered solely by attribution because, even though she herself only recently joined the Supervisory Board, she is a close family member of another person who has been on the Supervisory Board for more than 12 years. We consider the principle behind this recommendation to be flawed. In our opinion, long membership of a supervisory board does not necessarily cause a substantial – and not merely temporary – conflict of interest, which should indeed remain a key criterion for assessing independence, particularly not when such a long membership is merely "attributed" by way of a family relationship. We hold the opposite to be true, namely that it is highly desirable for our Supervisory Board members to stay with us for a long time. When they do, they gain the indispensable in-depth understanding of the company and its business, competitive environment, opportunities and risks, which in turn fosters advisory and control activities

aimed at sustainable, long-term objectives. We also do not consider it reasonable to now ask some of the shareholder representatives to step down simply to comply with this Code recommendation. For this reason, we depart from this recommendation. None of the other criteria indicating a lack of independence from the company and its executive board apply to any of the shareholder representatives.

d) Independence of the Supervisory Board Chair, the Audit Committee Chair and the Executive Committee Chair (Recommendations C.10 and D.4)

The chair of the Supervisory Board, who is also the chair of the Executive Committee, has been on the Supervisory Board for over 12 years and therefore, according to the Code recommendations, is not independent from the company and its Executive Board. The same is true for the chair of the Audit Committee, who has likewise been a Supervisory Board member for more than 12 years. To that extent, we declare a departure from Recommendations C.10 and D.4. We see no indication of impending substantial – and not merely temporary – conflicts of interest for either of the two Supervisory Board members and, accordingly, we consider the assumption of a lack of independence due to long membership of the Supervisory Board to be harmless in these two specific cases. In fact, the Board and the two committees benefit from the many years of experience contributed by their chairs. After weighing up all factors, we believe that changing the chairs is unwarranted. For the sake of completeness, we state that the chair of the Audit Committee complies with all the other requirements provided for by statute and recommended by the Code. He is also independent of the controlling shareholder.

e) CVs of Supervisory Board Members (Section 5.4.1, paragraph 5; Recommendation C.14)

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.

f) Time Limitation of Applications for Court-Ordered Appointment of a Supervisory Board Member (Section 5.4.3; Recommendation C.15)

Pursuant to this recommendation, applications for the appointment of a supervisory board member by the court should 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 in any case agreed with the majority shareholder beforehand. 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.

g) Formation of a Nomination Committee within the Supervisory Board (Section 5.3.3; Recommendation D.5)

A supervisory board is required to establish a nomination committee that is composed exclusively of shareholder representatives and whose task it is to name suitable candidates to the supervisory board for its proposals 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.

h) Specification of Performance Criteria Governing Variable Remuneration for the Forthcoming Fiscal Year (Recommendation G.7)

We believe it makes sense to determine variable compensation for the forthcoming fiscal year at the same Supervisory Board meeting that decides on variable compensation for the past fiscal year. That meeting is the March meeting of the Supervisory Board. It is also the meeting at which the performance criteria governing variable compensation are specified. This procedure has proven its worth in the past, and we believe it is not efficient to deal with the decision on performance criteria and the decision on target and maximum variable compensation at two separate meetings. For this reason, we do not comply with the recommendation that the performance criteria for all variable compensation components should be specified for the forthcoming fiscal year.

i) D&O Insurance Deductible for Supervisory Board Members (Section 3.8, paragraph 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 with our Executive Board compensation, we do not consider it reasonable to stipulate a deductible for members of our Supervisory Board.

j) Forward-Looking Assessment Basis for Variable Compensation of Executive Board Members (Section 4.2.3, paragraph 2)

In the past, we did not comply with this recommendation, which is now no longer contained in the Code. Under the current compensation system, the variable components of the Executive Board members' compensation are calculated on a three-year (= multi-year) 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 consider our compensation system to be 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.

k) Limit to Supervisory Board Members' Term of Office (Section 5.4.1, paragraph 2)

Pursuant to this former recommendation, the supervisory board was supposed to 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 applies in particular since the Code in any case provides for self-assessment of the supervisory board and its members, as part of its 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.

l) Announcement of Proposed Candidates for the Chair of the Supervisory Board to Shareholders (Section 5.4.3)

Pursuant to this former recommendation, shareholders were to be informed of the candidates for the supervisory board chair even though, as a rule, the supervisory board members were yet to be chosen. 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 did 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 publish 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 conferences and roadshows, and actively maintain contact with institutional investors. In the reporting year, nearly all these events were held online. We also regularly organize Capital Market Days and held two online in 2020. Important presentations are freely available on the internet, where interested parties can also access press releases and ad-hoc disclosures in both German and English, the online version of our Annual Report, every interim report, the Sustainability Report, Wacker Chemie AG's Articles of Association and the Supervisory Board's Rules of Procedure. Further information is provided via our online customer magazine, media library and Podcast Center.

» www.wacker.com

Annual Shareholders' Meeting

The Annual Shareholders' Meeting is an efficient forum for providing shareholders with comprehensive information on the company's situation. Even before the Annual Shareholders' Meeting begins, shareholders receive key 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, the combined management report and the non-financial 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 online. All these communication activities are part and parcel of 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. It consists of the Executive Board, which manages the company, and the Supervisory Board, which monitors and advises the Executive Board in its management of the company. These two bodies are kept strictly separate from one another with regard both to their membership and to their spheres of competence. The Executive and Supervisory Boards collaborate closely, however, to ensure WACKER's sustainable long-term success. Their common goal is to ensure the company's sustainable growth and to enhance its value. The Executive Board reports to the Supervisory Board and the latter's Audit Committee regularly, promptly and comprehensively on all relevant issues of strategy, planning, business development, risk exposure, risk management and compliance. Also in the periods between meetings, the Supervisory Board chairman maintains contact with the Executive Board, in particular with the president and CEO, 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/business units or suspending existing ones, and concluding sizable long-term loans.

Executive Board

The Executive Board bears direct responsibility for managing the company and represents Wacker Chemie AG in all dealings with third parties. Its actions and decisions are driven by the company's interest and the aim of achieving a lasting increase in the company's value. With this in mind, the Executive Board determines the WACKER Group's strategic direction. 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 Board department. All Executive Board decisions require a simple majority. In the case of a tie of votes, the president and CEO has the deciding vote. However, he/she does not have the right to veto Executive Board resolutions.

Appointments to the Executive Board

The Executive Board currently consists of four members. Together with the Executive Board, the Supervisory Board ensures that a system of sustainable, long-term succession planning for the Executive Board is in place in order to guarantee competent leadership at all times and enable appropriate responses to sudden absences or departures. The Supervisory Board's Executive Committee, which is tasked with preparing the Supervisory Board's personnel decisions, regularly discusses the topic of long-term succession planning for the Executive Board and, in doing so, takes account of the company's executive planning in dialogue with the Executive Board members. The Committee also complies with the provisions of the German Stock Corporation Act and this Code, and with those aspects of the diversity strategy adopted by the Supervisory Board that are relevant to the Executive Board's composition. The Executive Committee prepares a requirements profile, taking account of the criteria mentioned, entrepreneurial needs and specific qualifications. On this basis, the Executive Committee discusses and names a number of potential successors for each Executive Board position. The Executive Board participates in identifying and appointing such candidates. To enable appropriate succession planning, the Supervisory Board and Executive Board also have recourse to the results of assessments made of the company's other management levels so that they can identify suitable persons on an ongoing basis. When a position is to be filled, the Executive Committee prepares a shortlist of available candidates as soon as possible, holds talks with them, and then submits a well-grounded proposal and a recommendation to the Supervisory Board for adoption. The key aspect here is always the company's interest, with the circumstances of each specific case also being factored in. Depending on the situation, personnel consultants participate in this work, helping to validate the individual views of Supervisory Board members and to achieve a complete picture of the pool of eligible candidates.

Diversity Strategy for the Executive Board

The Executive Board of Wacker Chemie AG must be composed in such a way that all its members have the knowledge, skills and experience required to manage a chemical company 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 takes the following main aspects of diversity into account when proposing new members for 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 pronounced 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 both a successful and sustainable manner. 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 diversity strategy for the Executive Board is taken into account when Executive Board positions are filled.

The Executive Board's current composition corresponds to the diversity strategy adopted by the Supervisory Board.

Supervisory Board

The Supervisory Board appoints, monitors 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.

Composition of the Supervisory Board

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 roughly five years.

Length of Service of Supervisory Board Members

Name	Member of the Supervisory Board since
Wacker, Dr. Peter-Alexander (Chairman)	May 8, 2008
Köppl, Manfred (Deputy Chairman)	April 1, 2003
Áldozó, Peter	July 22, 1998
Biagosch, Prof. Andreas	January 26, 2015
Biebl, Dr. Gregor	May 8, 2013
Biebl, Matthias	May 8, 2008
Hautmann, Markus	January 1, 2021
Heindl, Ingrid	May 9, 2018
Kammergruber, Konrad*	January 1, 2012
Kammermann, Jörg**	November 14, 2018
Klein, Eduard-Harald	April 1, 2003
Kortüm, Franz-Josef	April 5, 2001
Kraller, Barbara	April 24, 2017
Rohrig, Beate	July 18, 2019
Schwab, Dr. Birgit	October 1, 2020
Wacker, Ann-Sophie	May 9, 2018
Weiss, Dr. Susanne	May 8, 2008
Winnacker, Prof. Ernst-Ludwig	September 27, 2005

* Until September 30, 2020
** Until December 31, 2020

Committees Increase the Supervisory Board's Efficiency

The Supervisory Board has constituted three professionally qualified committees to help it perform its duties optimally. The committees regularly report on their work 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 and 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 2020, the Executive Committee comprised 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 obligated 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 German Commercial Code). In addition, it discusses and examines the half-yearly financial reports and the quarterly figures. The Audit Committee gives the Supervisory Board a well-grounded 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 2020 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 2020, the committee comprised Dr. Peter-Alexander Wacker (as chairman), Manfred Köppl, Franz-Josef Kortüm and Eduard-Harald Klein.

Targets for the Composition and Skills Profile of the Supervisory Board of Wacker Chemie AG

WACKER has always attached importance to having highly qualified individuals sit on its Supervisory Board. In line with Recommendation C.1 of the Code, WACKER's Supervisory Board adopted the following objectives for its composition (including a skills profile 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 must 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 substantial 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 a 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 in its entirety must be familiar with the chemical industry (Section 100 (5) AktG).
- At least one member of the Supervisory Board must have expertise in the field of accounting or auditing (Section 100 (5) AktG).

The Supervisory Board will take into account the objectives it has set as well as its skills profile when making its nomination proposals to the Annual Shareholders' Meeting. The current composition of the Supervisory Board complies with the objectives set and with the skills profile.

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 skills profile it adopted.

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 monitor 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-assessment that also includes aspects such as its own composition and diversity.

The Supervisory Board fulfills the targets as regards its composition and complies with both the skills profile and the diversity strategy. Following Konrad Kammergruber's departure from the Supervisory Board and the subsequent appointment of Dr. Birgit Schwab to replace him in October 2020, there are currently six women on the Supervisory Board, two as shareholder representatives and four as employee representatives; this surpasses statutory requirements.

Independence
Given the shareholder structure, the group of shareholder representatives considers that it has an adequate number of independent members on the Supervisory Board. The Code, as amended December 16, 2019, contains specific criteria for judging whether supervisory board members are independent. Accordingly, members who have been on a supervisory board for more than 12 years are no longer considered to be independent from the company and its management board. Two shareholder representatives – Prof. Andreas Biagosch and Dr. Gregor Biebl – meet this criterion of independence from the company and its Executive Board.

We also consider Ms. Ann-Sophie Wacker to be independent from the company and its Executive Board. According to the definition given in the Code, it is presumed that she is not independent because a close family member of hers (Dr. Peter-Alexander Wacker) has been on the Supervisory Board for more than 12 years. However, after due consideration of all the circumstances, the Supervisory Board's shareholder representatives believe that this situation does not mean Ms. Wacker lacks independence. It cannot be assumed that she will be influenced by her father in exercising her duties as a member of the Supervisory Board – especially given that Dr. Wacker's own lack of independence from the company and its Executive Board stems solely from his long membership of the Supervisory Board and he otherwise has no particular personal or business relations with the company or the Executive Board that could constitute a conflict of interest that is substantial and not merely of a temporary nature. Especially in regard to the criterion of length of service, we deem the general assumption that a lack of independence could rub off on a close relative to be misguided.

The following four shareholder representatives are independent from the controlling shareholder: Franz-Josef Kortüm, Prof. Ernst-Ludwig Winnacker, Prof. Biagosch and Dr. Gregor Biebl.

Dr. Susanne Weiss, Dr. Peter-Alexander Wacker and Matthias Biebl belong to the controlling shareholder's management team and, in accordance with Recommendation C.9 of the Code, are irrefutably not independent. The same applies to Ms. Ann-Sophie Wacker, whose lack of independence under the Code results solely from the fact that she is Dr. Wacker's daughter. In our opinion, the Code goes too far in this respect because it does not take into account the special circumstances of family businesses. In our specific case, the controlling shareholder is a family holding company whose sole purpose consists in holding the shares in Wacker Chemie AG. Thus, above and beyond holding the equity investment in Wacker Chemie AG, the controlling shareholder does not engage in any other entrepreneurial activities and thus has no further interest linking it to the company. In the case at hand, there is thus no danger of a typical conflict of interest arising under the laws governing corporate groups.

For the reasons given in the Declaration of Conformity of December 2020, we do not comply with Recommendation C.1 of the Code to name a specific target number of independent members.

Self-Assessment of the Supervisory Board

Once a year, the Supervisory Board assesses how efficiently it has performed its duties, in both its plenary sessions and in its committees. At its December 2020 meeting, the Supervisory Board assessed the efficiency of its activities by means of a general discussion of the topic. The discussion and assessment were based on defined criteria, such as the frequency and length of (committee) meetings, preparation and conduct of the Supervisory Board and committee meetings, the quality and promptness of the information provided to the Supervisory Board members, the composition of the Supervisory Board and its committees, the handling of conflicts of interest and other conflicts within the body, and the Supervisory Board's general ability to monitor the company's Executive Board and advise it appropriately. The self-assessment confirmed the professional and constructive nature of the collaboration within the Supervisory Board and its committees as well as with the Executive Board. The Supervisory Board members came to the conclusion that, in particular, the material provided in advance of the meetings was comprehensive, of high quality and very easy to understand, thus making for comprehensive and efficient meeting preparation and for candid discussions during the meetings. The Supervisory Board members also found the separate preparatory meetings of employee and shareholder representatives in advance of the meetings of the full Supervisory Board to be particularly expedient and conducive to candid discussions. They did not identify any need to make fundamental changes. Any suggestions made in the course of the year will be addressed and implemented accordingly.

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 its legal requirements and that employees also observe 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 87. 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. These officers hold regular training courses to inform employees of key legal provisions and internal regulations. They are also the contact persons for employees who have questions or need advice, information or training in compliance matters.

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's goals should be achieved. These codes are supplemented by a set of company regulations and directives.

- 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, products and transportation.

— Code of Sustainability: lists the sustainability principles that are central to R&D, Procurement, Logistics, production and products as well as our commitment to society.

» The codes are available at: https://www.wacker.com/cms/en-de/about-wacker/WACKER-at-a-glance/corporate-strategy-and-policy-guidelines/ethical-principles.html.

Responsible Care® and the UN 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 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. The same is true of the UN Global Compact initiative. We observe the UN Global Compact's ten principles, which address social and environmental standards, combat corruption and protect human rights. We also expect our suppliers to respect the principles of the UN 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 UN Global Compact, and coordinates its sustainability activities worldwide.

Engagement with Society

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 a unit for ad-hoc publicity coordination, where 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 to them. A reporting obligation exists, however, only where the total volume of the transactions made by the person concerned reaches or exceeds €20,000 within a calendar year.

» The transactions reported to Wacker Chemie AG are published in the proper manner; more detailed information can be found at: www.wacker.com/cms/de-de/about-wacker/investor-relations/corporate-governance/directors-dealings

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 how they are developing. The Audit Committee regularly reviews the accounting process and the effectiveness of the internal control, risk management and auditing systems, while the full Supervisory Board is also regularly informed about the compliance management system and the Group's internal control systems. Both bodies are 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 is to be informed without delay during the audit about any grounds for disqualification and/or bias. In addition, the auditors must immediately report all material findings and events that 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 is 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 its Executive and Supervisory Board members (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 four 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. In December 2020, the Supervisory Board appointed Ms. Angela Wörl to the Executive Board with effect from the end of the Annual Shareholders' Meeting of 2021. As a result, the Executive Board will comprise three men and one woman as of that date. The company is also well on the way to meeting its targets for the two management levels below the Executive Board – first management level: 21 percent; second management level: 20 percent – by the deadline of December 31, 2022. Based on the current situation, we expect to reach these two targets before the deadline.

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 light of German Stock Corporation Act and German Corporate Governance Code changes, the Supervisory Board has decided to modify certain aspects of the compensation system effective January 1, 2021. This will be proposed for approval at the next annual shareholders' meeting.

The compensation system for the Executive Board, in effect since January 1, 2010 and until December 31, 2020, 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 offset 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 2020
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 2020.

The following table shows the payments for fiscal 2020 from fixed compensation, additional benefits and variable compensation, as well as pension expenses.

Payments in the Year under Review (Compensation for 2020 and 2019)

€	2020	2019	2020	2019
	Dr. Rudolf Staudigl President & CEO		Auguste Willems Executive Board member	
Fixed compensation[1]	**880,000**	880,000	**610,000**	610,000
Additional benefits[2]	**95,945**	64,464	**51,387**	56,047
Total	**975,945**	944,464	**661,387**	666,047
Multiyear variable compensation[3]	**1,042,360**	1,012,000	**722,545**	701,500
Total	**2,018,305**	1,956,464	**1,383,932**	1,367,547
Pension expenses[4]	**—**	—	**667,680**	593,979
Total compensation	**2,018,305**	1,956,464	**2,051,612**	1,961,526
	Dr. Tobias Ohler Executive Board member		Dr. Christian Hartel Executive Board member	
Fixed compensation[1]	**580,000**	580,000	**580,000**	580,000
Additional benefits[2]	**61,175**	81,225	**54,909**	58,333
Total	**641,175**	661,225	**634,909**	638,333
Multiyear variable compensation[3]	**687,010**	667,000	**687,010**	667,000
Total	**1,328,185**	1,328,225	**1,321,919**	1,305,333
Pension expenses[4]	**593,120**	491,025	**390,349**	390,349
Total compensation	**1,921,305**	1,819,250	**1,712,268**	1,623,661

[1] Calculation of the pensionable portion of the compensation excluded an amount of €80,000 for Dr. Staudigl and €30,000 for Mr. Willems.
[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 2020. It also lists the minimum and maximum attainable values.

Compensation and Benefits for the Year under Review (Targets)

€	2020 (target)	2020 (min.)	2020 (max.)	2019 (target)	2020 (target)	2020 (min.)	2020 (max.)	2019 (target)
	Dr. Rudolf Staudigl President & CEO				Auguste Willems Executive Board member			
Fixed compensation[1]	**880,000**	**880,000**	**880,000**	880,000	**610,000**	**610,000**	**610,000**	610,000
Additional benefits[2]	**95,945**	**95,945**	**95,945**	64,464	**51,387**	**51,387**	**51,387**	56,047
Total	**975,945**	**975,945**	**975,945**	944,464	**661,387**	**661,387**	**661,387**	666,047
Multiyear variable compensation[3]	**941,600**	**289,520**	**1,384,240**	1,434,400	**652,700**	**200,690**	**959,530**	994,300
Total	**1,917,545**	**1,265,465**	**2,360,185**	2,378,864	**1,314,087**	**862,077**	**1,620,917**	1,660,347
Pension expenses[4]	**–**	**–**	**–**	–	**667,680**	**667,680**	**667,680**	593,979
Total compensation	**1,917,545**	**1,265,465**	**2,360,185**	2,378,864	**1,981,767**	**1,529,757**	**2,288,597**	2,254,326
	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**	580,000
Additional benefits[2]	**61,175**	**61,175**	**61,175**	81,225	**54,909**	**54,909**	**54,909**	58,333
Total	**641,175**	**641,175**	**641,175**	661,225	**634,909**	**634,909**	**634,909**	638,333
Multiyear variable compensation[3]	**620,600**	**190,820**	**912,340**	945,400	**620,600**	**190,820**	**912,340**	945,400
Total	**1,261,775**	**831,995**	**1,553,515**	1,606,625	**1,255,509**	**825,729**	**1,547,249**	1,583,733
Pension expenses[4]	**593,120**	**593,120**	**593,120**	491,025	**390,349**	**390,349**	**390,349**	318,328
Total compensation	**1,854,895**	**1,425,115**	**2,146,635**	2,097,650	**1,645,858**	**1,216,078**	**1,937,598**	1,902,061

[1] Calculation of the pensionable portion of the compensation excluded an amount of €80,000 for Dr. Staudigl and €30,000 for Mr. Willems.
[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 2020: 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

€	2020	2019
Total	1,906,493	2,255,993

Pension Obligations for Executive Board Members

€	2020	2019
Pension obligations for active Executive Board members		
Total	42,230,614	36,731,498
Pension obligations for former members of the Executive Board or their dependents		
Total	36,109,573	35,727,056

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 prorated compensation.

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

€	2020	2019
Fixed compensation[1, 2]	2,165,000	2,159,877
Variable compensation	—	—
Total	2,165,000	2,159,877

[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 2020. 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. 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. As a program participant, we 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: https://www.wacker.com/cms/en-de/about-wacker/sustainability/global-compact/detail.html

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 the Declaration on Corporate Management.

» The codes can also be viewed on the WACKER website at: https://www.wacker.com/cms/en-de/about-wacker/wacker-at-a-glance/corporate-strategy-and-policy-guidelines/ethical-principles.html

Our corporate management, including through our managers for Environment, Health and Safety (EHS), Product Safety (PS) and Sustainability, is involved in issues of corporate social responsibility (CSR). Our Executive Board is represented in the Sustainability Council as well as in the Human Rights Committee via the Chief Compliance Officer, who reports directly to the Board. Furthermore, our Executive Board is represented in the leadership of the German Chemical Industry Association's Technical and Environment Committee, and we are active on the VCI's Sustainability Board and in its Chemie³ initiative.

» https://www.chemiehoch3.de/

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. Not included are WACKER Biotech B.V., Amsterdam, Netherlands, and WACKER Biotech GmbH, Halle and Jena, as well as WACKER Dymatic Silicones (Shunde) Co., Ltd., Foshan City and Zhangjiagang City, China. There are corresponding individual certificates for the Tsukuba site of Wacker Asahi Kasei Silicone Co., Ltd., Tokyo, Japan. All German sites, including Halle and Jena, were certified to the revised ISO 50001:2018 standard for the first time, while the site in Jincheon, South Korea, was additionally certified to the new ISO 45001:2018 (occupational safety and health).

Aside from these four traditional management standards, WACKER also has many individual products certified to the standards FSSC 22000 (food) and EFfCI GMP (cosmetics). Certification of our products to Islamic (halal) and Jewish (kosher) dietary laws is increasingly important to ensure access to these markets. In the reporting year, WACKER had its first mass balance products certified to the new REDcert2 standard for the chemical industry. These products make a key contribution to sustainability since we manufacture them without fossil raw materials.

All certificates are available to our customers for download at:

» www.wacker.com/certificates

Sustainability Strategy

With SustainaBalance®, WACKER has set itself a sustainability strategy with goals up to 2030. The strategy comprises three principles designed to promote the balance between ecological, social and economic factors:

- Value Up
- Footprint Down
- Collaboration Beyond

The Executive Board has convened a Sustainability Council to monitor and coordinate the sustainability strategy. 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.

The WACKER Sustainable Solutions program helps us anchor sustainability-related aspects even more firmly in our business models.

WACKER Sustainable Solutions aims to:

- Promote and expand our existing sustainable business fields
- Establish new sustainable business areas
- Identify and minimize sustainability-related risks to our business portfolio at an early stage

To foster even greater awareness for sustainability among our employees, WACKER held a third groupwide Sustainability Week in the reporting year. Over 30 sustainability projects to conserve resources and reduce the carbon footprint were initiated during this event.

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. For years, WACKER has regularly held stakeholder surveys as part of its sustainability reporting.

For cost and efficiency reasons, we conducted our first-ever indirect stakeholder survey in 2020. This involved WACKER employees estimating which topics are of significance to those stakeholders with whom they are in close contact. Aside from relevance to the stakeholders, the survey also investigated the influence of each topic on WACKER and the effects of WACKER's business activities on the topics. The top five issues were the safety of production plants, product safety, competitiveness/value trends, occupational safety/employee health, and compliance. They correspond to the key issues identified in the survey of 2018.

» 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 2021, WACKER will publish its Sustainability Report for 2019/2020.

CSR Directive Implementation Act

In this non-financial report, we cover issues that are deemed material under Germany's CSR Directive Implementation Act. This includes the following 13 (out of 30) key points in our 2020 stakeholder survey:

D.1 Relevant Issues in Accordance with the CSR Directive Implementation Act (CSR-RUG)

Material Issues Pursuant to CSR-RUG	CSR-RUG Aspect
Occupational safety and employee health	Personnel matters
Job creation and retention	Personnel matters
Competitiveness and value trends	Personnel matters
Safety of production plants	Personnel matters and environmental concerns
Relations with stakeholders	Personnel matters, environmental concerns and social issues
Compliance	Preventing corruption and bribery
Waste and disposal	Environmental concerns
Emissions	Environmental concerns
Energy efficiency	Environmental concerns
Sustainable products and innovations	Environmental concerns
Product safety	Environmental concerns
Resource consumption	Environmental concerns
Transport and storage safety	Environmental concerns

Although the issue of human rights was not deemed doubly material – i.e. in its effect on our business and in our business's effect on this sustainability aspect – we nevertheless report on it as required by law. This non-financial report contains additional topics that are not defined as material by the CSR-RUG, but which do help ensure content continuity.

Environmental Concerns

By setting quantifiable environmental targets, we aim to lower the environmental impact of our production activities. The long-term goals regarding CO_2 emissions and energy consumption apply groupwide.

D.2 WACKER's Environmental Targets

Region	Environmental Indicator[2]	Base Year	Target Year	Target[1] (%)
Group	Specific energy consumption (per metric ton of net production)	2007	2030	–50
Group	Specific carbon dioxide emissions (per metric ton of net production)	2012	2030	–33
Group	Specific dust emissions (per metric ton of gross production)	2012	2022	–50
Group	Specific emissions of relevant VOCs (volatile organic compounds; per metric ton of gross production)	2012	2022	–25
Group	Specific NO_X emissions (nitrogen oxides; per metric ton of gross production)	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.

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 production sites and technical competence centers. The site managers ensure that environmental protection requirements and environmental standards are met at their particular locations.

D.3 Environmental Protection Costs

€ million	2020	2019	2018
Operating costs	**83.0**	82.9	82.9
Capital expenditures	**0.8**	5.1	5.9

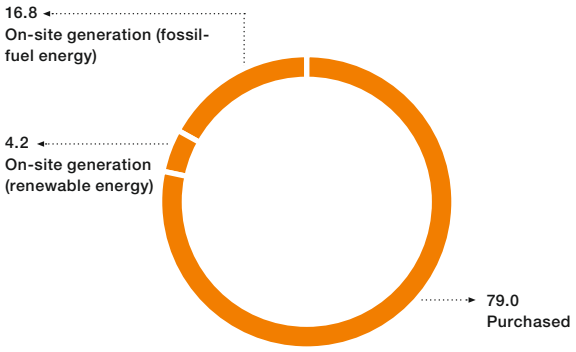
In 2020, WACKER invested €0.8 million in environmental protection (2019: €5.1 million). Environmental operating costs amounted to €83.0 million (2019: €82.9 million). Half of our environmental expenditure was for waste management at the Zhangjiagang site. At Nünchritz, we began preliminary work on building a flue-gas denitrification ($DeNO_x$) facility in the waste-incineration plant. At Burghausen, we invested in a new measurement vehicle.

Energy

The chemical industry is one of the most energy-intensive sectors. 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.4 Sources of Electricity

%



Energy Consumption

The Executive Board's aim is to keep lowering the Group's specific energy consumption (the amount of energy per unit of net production output). To this end, it has set a target to reduce specific energy consumption to one-half of the 2007 level by 2030.

D.5 Group Energy Consumption

GWh	2020	2019	2018
Electricity consumption	**5,879**	5,818	5,178
Of which			
From on-site generation (fossil)	**988**	802	1,213
From on-site generation (renewable)	**249**	273	218
Energy consumption[1]	**5,744**	5,217	5,703
Of which			
Natural gas[2,3]	**4,188**	4,029	4,827
Solid fuels[4]	**1,295**	947	640
Heat supplied by third parties[5]	**261**	241	236

[1] Excluding energy from electricity provided by third parties, self-generated renewable energy and recovered energy
[2] Includes natural gas used for on-site fossil-fuel-based electricity generation
[3] For reporting years beginning in 2020, heat consumption is no longer itemized separately; most of it is contained in the figure for natural gas consumption.
[4] Coal, charcoal and wood; used as reducing agents at the silicon-metal plant in Holla, Norway
[5] Steam and district heating

Many chemical reactions generate heat that can be put to use in other production processes. In addition to recovering heat from these reactions, we also operate integrated heat-recovery systems, which we are continually developing and improving. In this way, we reduce the amount of primary energy (natural gas) consumed by our power plants. The use of electric power is also being optimized continuously.

We installed a new gas turbine to modernize the Burghausen site's combined heat and power (CHP) plant for electricity and steam generation. The new turbine has an output of over 130 MW, which makes the CHP plant more efficient than the previous, almost 20-year-old plant, and produces fewer emissions.

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. Combining this plant with the output of Burghausen's hydroelectric plant and that of smaller generation facilities, we produced 1,236 GWh of electricity in the reporting year (2019: 1,075 GWh). That means we generated roughly 21 percent of our total electricity needs ourselves.

Explanation of Environmental Indicators

In 2020, direct emissions of carbon dioxide from fossil sources (Scope 1 of the Greenhouse Gas Protocol) rose 12 percent year over year. The expansion of silicon metal production capacity at the Holla site in Norway increased carbon dioxide emissions. Some of the increase is also attributable to the commissioning of the new gas turbine at Burghausen. With it, the site's power plant operated with almost no interruptions, in contrast to the previous year, when it had been shut down several months for construction.

Nitrogen oxide emissions rose 30 percent compared with 2019. The principal causes were the capacity expansion at Holla and measures to stabilize processes in the new furnace. This alone led to an unplanned 45-percent increase in nitrogen oxides at Holla in 2020. The significant decrease in emissions due to the new gas turbine at Burghausen –16 percent less NO_x year over year – reduced this effect.

Non-methane volatile organic compounds (NMVOC), which over the years have followed a familiar trend and are highly dependent on utilization of production capacity, resulted in an 11-percent increase in emissions in the reporting year. They were caused by the expansion of WACKER POLYMERS' production capacity at Ulsan and by the high utilization rates of production facilities at Nanjing and Burghausen.

The major expansion at the Holla site caused total dust emissions to rise year over year. Even though the new furnace at Holla, with its enhanced technology, will ultimately help further reduce specific dust emissions per metric ton of product, necessary measures taken to stabilize the new furnace's processes led to periods of elevated dust emissions in the reporting year.

Water withdrawal rose 21 percent year over year. The increase is not a function of higher water consumption, rather, it indicates the inclusion of water volumes we collect at the Burghausen and Cologne sites and redirect to third parties. In terms of the CDP reporting limits, we began in 2020 to report all water volumes we extract from nature, irrespective of whether we use them ourselves or redirect them to third parties.

The amount of waste rose 14 percent groupwide. The increase is primarily attributable to the final disposal of mineral waste produced as part of a multi-year expansion project at the Holla site. Changes in production-related waste streams reflect trends in production-capacity utilization.

Operational processes were affected by occurrences related to the pandemic. These included, for example, more frequent startups and shutdowns, fluctuating utilization of production capacity, postponement of maintenance phases and limited shift-staffing options. Because of the coronavirus pandemic, none of the planned on-site audits were performed at WACKER sites.

D.6 Environmental Indicators

	2020	2019	2018
Air			
CO_2 emissions[1]			
Direct (kt)[2]	**1,264**	1,133	1,194
Of which fossil (kt)	**1,208**	1,102	1,166
Of which biogenic (kt)	**56**	31	28
Indirect (kt)[3]	**1,579**	1,754	1,478
NO_X (nitrogen oxides) (t)	**2,330**	1,790	1,810
Non-methane volatile organic compounds (NMVOCs) (t)	**890**	800	860
Dust (t)	**500**	354	284
Water			
Water withdrawal (thousand m³)[4]	**264,077**	218,270	227,510
Waste			
Total	**200,160**	175,870	182,750
Disposed of (t)	**88,880**	64,370	49,690
Recycled (t)	**111,280**	111,500	133,060
Hazardous (t)	**96,350**	71,390	77,070
Non-hazardous (t)	**103,810**	104,480	105,680

[1] CO_2 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 the World Business Council for Sustainable Development. Scope 1: direct CO_2 emissions. Scope 2: indirect emissions from the generation of purchased energy (converted into CO_2 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] CO_2 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 CO_2 emissions in a climate neutral manner – because it is not fed into the public grid. From 2020 onward, indirect CO_2 emissions also include methane and nitrous oxide emissions converted into CO_2 equivalents.
[4] From 2020 forward, the figure for water withdrawal also includes water volumes redirected to third parties.

Greenhouse Gas Emissions

Monitoring the Group's carbon footprint is an important tool from which we derive measures to improve climate protection. In addition to our direct emissions (Scope 1), we also track indirect greenhouse gas emissions from purchased energy (Scope 2) and 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 Carbon Disclosure Project (CDP).

Increased energy needs due to changed processes at the Charleston site in the USA and the capacity expansion at the site in Ulsan, South Korea, caused Scope-2 emissions to rise in 2020. This increase in indirect CO_2 emissions was more than offset at Group level by the decline in production output at the Nünchritz site and, above all, by the year-over-year reduction in procured electricity at Burghausen, where the new gas turbine in the site's CHP plant was in operation for the entire year. Minor changes in indirect CO_2 emissions at other sites are offset at Group level.

The electricity-to-CO_2-emissions conversion factors for power generation in Germany and the USA fell further (data as per CO_2 Emissions from Fuel Combustion, 2020 Edition, International Energy Agency). The impact of these lower conversion factors for indirect CO_2 emissions amplified the reduction of Scope-2 CO_2 emissions due to reduced quantities of purchased electricity.

In 2020, 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 score of B as in the previous year (on a scale from A to D, representing the levels Leadership (A), Management (B), Awareness (C) and Disclosure (D)). Registered CDP users can download the details.

» https://www.cdp.net/en/data

Water

In 2020, we scored a B in the CDP's Water Security Report (prior year: B–). This ranking was made possible by detailed analyses of the company's processes and by more systematic data capture (scale from A to D, representing the levels Leadership (A), Management (B), Awareness (C) and Disclosure (D)). Registered CDP users can download the details.

» https://www.cdp.net/en/data

In the WWF Water Risk Filter, we achieved a maximum Global Basin Risk score of 3.6 (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.

» https://waterriskfilter.panda.org/

WACKER joined Operation Clean Sweep® (OCS) in the reporting year. The initiative is committed to preventing the release of plastic pellets, flakes and powder into waterways.

» https://www.opcleansweep.org/

In the reporting year, we prepared a water stewardship program under which our business divisions and sites commit to using water resources responsibly throughout the entire supply chain.

The Burghausen site's Employee Suggestion Program launched an ideas campaign calling on employees to recognize water as an important resource and use it sparingly. Some 30 suggestions were submitted, particularly on the topics of cooling water and wastewater; eight of these have already been implemented, one is still being implemented. In November, the Employee Suggestion Program launched an ideas competition focusing on the circular economy, with eleven suggestions received by year-end.

Product Assessment Based on Sustainability Criteria

The goal of achieving climate neutrality by 2050 is playing an increasingly important role in how we develop new products. When assessing the sustainability of our products, we take account of economic, environmental and social aspects throughout the entire product life cycle. The tools we use in this process are WACKER Sustainable Solutions and the WACKER ECOWHEEL®. 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 stakeholders, set priorities for research projects. Our evaluations factor in a product's material, water and energy consumption, as well as its ecotoxicity, over the entire life cycle.

— In the WACKER Sustainable Solutions program, we conduct product portfolio sustainability assessments in line with the standards set by the World Business Council for Sustainable Development (WBCSD). We study the life cycles of products and their usage under specific regional requirements. PARCS – one product (or product group) in one application in one region in combination – form the basis for the evaluation. We examine toxicological classification, regulatory and social criteria, controversial industries and raw materials, as well as sustainability-related aspects across the entire product life cycle. Every assessed PARC unit is assigned to one of five sustainability categories. Through the end of the reporting year, we conducted over 270 PARC reviews covering approximately 90 percent (based on 2019) of the WACKER Group's sales. 80 percent of the products meet the minimum sustainability criteria. For the remaining 20 percent we have defined measures to either improve sustainability performance or replace the product.

» https://www.wbcsd.org/Programs/Circular-Economy/Factor-10/Sector-Deep-Dives/Resources/Chemical-Industry-Methodology-for-Portfolio-Sustainability-Assessments

— 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 power generation and from transport. In the reporting year, customers of WACKER POLYMERS and WACKER SILICONES supplied processed data on request.

— We have set up our Identifying Substances and Mixtures of Concern (ISC) system in a dedicated database to systematically assess raw materials that we use in our products. In addition to regulatory factors, we also take into account issues under public debate.

Nature Conservation

WACKER is a founding member of the Bavarian Environmental Pact, which the Bavarian state government and Bavaria's industry associations extended in the reporting year with an emphasis on climate protection.

» https://www.umweltpakt.bayern.de (in German only)

As part of the Bavarian Environmental Pact, we and seven other ChemDelta Bavaria companies have joined forces in 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.

» https://www.naturnahe-alz.de/ (in German only)

WACKER is working with the Altötting Landscape Conservation Association in a community project to promote biodiversity at the Burghausen site. 30,000 square meters of land along a one-and-a-half-kilometer stretch of the Alz canal between Burgkirchen and Hirten are being restored into a habitat where flowers and insects can thrive. At the Burghausen site, land areas totaling over 2,300 square meters have been turned into flourishing meadows as a nourishing habitat for insects.

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 step 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 release of a substance or lead to an accident. After completing this comprehensive analysis, we specify safety measures to prevent undesired events.

D.7 Environment- and Safety-Related Incidents – WACKER Group

	2020	2019	2018
Groupwide number of environment- and safety-related incidents[1]	29	29	37
Groupwide environment- and safety-related incidents per 1 million hours worked[2]	**1.3**	1.3	1.7

[1] Pursuant to the criteria of the European Chemical Industry Council (Cefic Guidance for Reporting on the ICCA Globally Harmonized Process Safety Metric, June 2016)
[2] WACKER Process Safety Incident Rate (WPSIR)

Our safety management system is focused on prevention. Nevertheless, safety-critical incidents cannot always be prevented. Across the Group, we promptly enter any incident relevant to safety, health or the environment in the IT system we use for sustainability reporting (SPIRIT). Reports are evaluated, and corrective action tracked. Incident reports with learning effects for other divisions or sites of the Group are processed and forwarded to corporate units where the potential hazards are similar.

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. WACKER gives special recognition to facilities that operate for sustained periods of time without a reportable accident.

To enhance our experts' knowledge of explosion-damage protection, we developed and conducted well-attended interactive online training courses in the reporting year.

The program to improve the safety of pipe bridges was transitioned into an ongoing program to check for and, if necessary, repair corrosion damage.

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 2020, roughly 15 percent of total shipments in Germany were shipments of hazardous goods. Some 12,000 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 (2019: around 9,000). We turn away any that are defective. Failure rates have been extremely low for years now. The rate for 2020 was 2.0 percent for hazardous-goods shipments by road from Burghausen, our largest site (2019: 2.8 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 on improvements. WACKER imposes stringent safety requirements on its logistics providers. These are not only set out in the corresponding contractual agreements, but also underscored by a comprehensive requirements profile.

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 an important factor in the annual assessment of our logistics providers. In the reporting year, we recorded a total of four transport incidents in Germany involving hazardous goods.

D.8 Transport Incidents in Germany

Number of Accidents	2020	2019	2018
Road	—	3	3
Rail	2	2	—
Sea	2	—	—
Inland waterways	—	—	—
Air	—	—	—

Product Safety

WACKER provides information on the safe use of its products. We work 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).

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 670 registration dossiers, including any revisions, to the European Chemicals Agency (ECHA) from when registrations began in 2008 through the end of 2020. 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 2020.

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 contribute to the safe use of chemicals, ECHA provides substance information on the internet in "Infocards" containing the data from the registration dossiers.

» https://echa.europa.eu/information-on-chemicals

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 strategy. 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

Vocational training is a key component of WACKER's personnel development activities. In 2020, 189 young people began apprenticeships at WACKER or at the Burghausen Vocational Training Center (BBiW). With a total of 642 apprentices, WACKER had 3.9 percent more apprentices than the year before (2019: 618). The percentage of apprentices (ratio of apprentices to Group employees in Germany) was 5.9 percent, somewhat higher than the prior-year figure of 5.6 percent. In 2020, WACKER kept on virtually all suitably qualified apprentices –139 graduates – hiring 54 on permanent contracts and 85 on temporary contracts. The Burghausen Vocational Training Center also provides training for companies other than WACKER.

To keep abreast of demographic trends and offer young people long-term prospects, a company agreement for WACKER Germany relating to the hiring of qualified apprentices was concluded in the reporting year. Under the agreement, which runs through March 31, 2026, suitable apprentices receive a job offer after graduating.

In 2020, WACKER invested a total of €4.9 million in personnel-development activities and advanced training (2019: €8.5 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.

Workplace accident performance is one of the most important non-financial performance indicators. We had set a goal of ensuring that the number of workplace accidents per 1 million hours worked would not exceed 2.0 groupwide in 2020. The accident rate actually achieved was 3.0 workplace accidents per 1 million hours worked – a reduction relative to the previous year, but still short of our goal.

In November 2020, there was a minor release of hydrogen chloride and steam in a production building at the Charleston (USA) site. During the building's evacuation in response to the substance release, five external-company employees were injured, one fatally. The incident had no impact beyond the site or on the environment. Among its own employees, WACKER again recorded no fatal workplace accidents in the reporting year.

D.9 Workplace Accidents Involving Permanent Staff and Temporary Workers

	2020	2019	2018
Accident rate across Group: Accidents[1] per 1 million hours worked	**3.0**	3.4	2.9
Europe[2]	**3.3**	3.7	3.6
The Americas	**3.2**	2.9	1.5
Asia	**1.3**	1.9	0.4
Accident rate across Group: Reportable accidents[3] per 1 million hours worked	**2.2**	1.9	1.3
Fatal accidents	—	—	—

[1] Accidents leading to at least one day off work
[2] From 2020 onward, Burghausen's Vocational Training Center (BBiW) is included in the calculations.
[3] Accidents leading to over three days off work

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.

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.

One major safety task in 2020 centered on developing and implementing appropriate hygienic safety measures to stop the coronavirus from spreading at WACKER's sites. Crisis management teams worked together quickly, pragmatically and reliably to keep business processes operational. In this context, our top priorities were employee health and ensuring supply continuity for our customers. That is why WACKER introduced binding regulations and measures early on – including hygiene and social-distancing rules, and a ban on business trips to risk areas. Wherever feasible, employees worked from home. In work areas that are vital for integrated production and where the prescribed distance could not be kept, employees wore protective masks. The measures taken were successful. The number of Group employees infected by the coronavirus in the reporting year was low.

Diversity and 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 throughout the WACKER Group and, as part of our corporate culture, are embodied in our Code of Teamwork & Leadership. Employees can report incidents of potential discrimination – even anonymously. Reports can be made to a manager, compliance officer, employee representative or designated HR contact person. Complaints are investigated, and the reporting party is 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.

At WACKER, special arrangements are in place for anyone who has severe disabilities, who is of equivalent status or whose health is impaired. In order to provide targeted support in line with local laws, 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.

D.10 Diversity, Inclusion and Equal Opportunity

	2020	2019	2018
Workforce, groupwide	**14,283**	14,658	14,542
Of whom female	**3,404**	3,454	3,355
Female employees, groupwide (%)	**23.8**	23.6	23.1
Workforce in Germany	**10,099**	10,359	10,291
Of whom non-German	**1,005**	1,047	1,054
Non-German employees in Germany (%)	**10.0**	10.1	10.2
Employees in middle management, groupwide (managerial level 3)	**3,278**	3,313	3,212
Of whom female	**804**	810	762
Women in middle management, groupwide (%)	**24.5**	24.4	23.7
Executive personnel (OFK), groupwide[1]	**169**	174	172
Of whom female senior executives	**25**	24	23
Female senior executives, groupwide (%)	**14.8**	13.8	13.4

[1] Figures for senior executives (OFKs) exclude inactive employment contracts and the Executive Board of Wacker Chemie AG

Diversity management at WACKER focuses not only on inclusion, but also on the issues of gender and cultural background. People from 70 different nations work for WACKER. At the end of 2020, 37 out of a total of 169 senior executives groupwide were of non-German nationality, corresponding to 21.9 percent of the total. A total of 15 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.

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. More than 950 enterprises, public-sector employers, charitable organizations and associations are members of the Family Pact.

Employee Turnover

Good social benefits, competitive compensation and motivating tasks make WACKER an attractive employer. That is evident in our employees' many years of service with us. The average length of service in Germany (permanent staff) was 18.5 years (2019: 18.1 years). The average length of service of WACKER's executive personnel was 23.2 years.

D.11 Employee Turnover Rate

%	2020	2019	2018
Germany	0.9	0.5	0.7
International	7.5	8.4	8.4
Group	2.7	2.7	2.8

In its annual satisfaction survey of chemical-industry executives, the VAA (German Chemical Industry Association of Academic and Management Employees) ranked WACKER tenth out of the 21 companies assessed. In the reporting year, VAA member executives gave WACKER an overall score of 2.7, with 1.0 being the highest (the year before WACKER had taken third place with a score of 2.5).

We have included information on our Shape the Future efficiency program and on phases of short-time work in our combined management report.

» Refer to the section entitled Further Information on R&D, Employees, Procurement, Production, Sales and Marketing.

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 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.

In the fight against the coronavirus pandemic, WACKER supported hospitals, care facilities and other institutions in the reporting year. Early on in the pandemic, WACKER responded to an inquiry from the Bavarian Ministry of Economic Affairs by donating 11,000 liters of isopropyl alcohol to make 15,000 liters of hand sanitizer for Bavarian hospitals and care facilities. WACKER Chemical Corporation in Adrian, Michigan (USA), produced its own hand sanitizer on site to meet requirements, and donated surplus quantities to local emergency services and medical facilities. Arburg, a manufacturer of injection-molding machines for processing plastics and silicone rubbers, set up a production line to make novel facial masks based on a liquid silicone rubber grade from WACKER. WACKER SILICONES supplied the company with raw material for tens of thousands of masks at no charge. Initially given to employees for their protection, the product was later distributed free of charge to hospitals, emergency services and care facilities via the local government of Freudenstadt in southwestern Germany.

With two donations of 7.5 million rupees (€91,500) each, WACKER Metroark Chemicals (WMC) supported the state relief fund of West Bengal, where WACKER's Amtala production site is located, and the prime minister's PM CARES Fund, which coordinates Covid-19 relief in India.

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, Michigan (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 we 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 more than 140 companies and the state of Bavaria. Its goal is to modernize the Bavarian education system. In 2020, the number of teachers in Germany and Austria trained in WACKER's CHEM2DO® experiment kit reached 2,700. Now in its seventh 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.

D.12 Corruption and Bribery Incidents

	2020	2019	2018
Prevention			
Number of organizational units examined for corruption/bribery risks	27	29	31
Percentage of legal entities examined for corruption/bribery risks	20	20	20
Corruption and Bribery Incidents[1]			
Examined	–	1	2
Closed[2]	–	2	1
Measures Taken in Response to Corruption and Bribery Incidents			
Written warnings	–	–	–
Termination of employment	–	1	–
Number of lawsuits	–	–	–
Level of major fines[2] and number of non-monetary penalties	–	–	–

[1] Only cases of corruption in the narrow sense (e.g. bribery) are taken into account.
[2] Major fine threshold: from €10,000

Respect for Human Rights

We are committed to ensuring that our business activities do not violate or have any adverse impact on human rights. 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. We do not use physical violence, mental intimidation or any other form of abuse. 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. In the reporting year, we continued to implement the requirements of Germany's National Action Plan for Business and Human Rights.

Our Human Rights Committee is tasked with evaluating 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. The committee meets at least four times a year and comprises experts in sustainable development, compliance, law, human resources, social sciences, procurement, logistics and sales, as well as human rights specialists. It reviews the results of audits and assessments and, where necessary, takes action to achieve improvements. No direct violations of human rights became known during the reporting period.

One of the issues for which Executive Board member Auguste Willems is responsible is CSR, and that makes him responsible for human rights – an issue also covered by the Sustainability Council under his leadership. As president and CEO, Dr. Rudolf Staudigl signs our statement on the UK's Modern Slavery Act, as well as our UN Global Compact Progress Report. As part of the Together for Sustainability (TfS) initiative, we involve our supply chain in requirements relating to human rights.

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.

The Chief Compliance Officer reports directly to the President and CEO on compliance issues. The full Executive Board is informed about relevant compliance cases within the Group on a quarterly basis; in urgent cases, the Executive Board is informed immediately.

Our twin goals are high attendance at our online compliance training courses and a low number of corruption cases. Training courses on compliance raise employees' awareness of the relevant risks and convey binding rules of behavior for daily work routines. 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. Particularly important issues include working conditions, ethical standards, safety standards (especially for handling hazardous materials) and the management of local resources (water use, energy consumption, etc.).

WACKER has been a member of the Together for Sustainability (TfS) initiative since 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.

» https://tfs-initiative.com/

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 79 percent of the Group's procurement volume. Since joining TfS, we have made good progress along this path. At the end of 2020, 81 percent of our key suppliers and 94 percent of their procurement volume were covered by a valid TfS assessment or audit (i.e. no more than three years old). 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).

As a TfS member, WACKER not only evaluates its suppliers in terms of sustainability, but also subjects its own performance as a supplier to external rating by EcoVadis. For 2020, WACKER achieved a Platinum EcoVadis recognition level. Having improved its rating from 72 points in 2018 to 75 points, the Group now ranks among the top 1 percent of the companies rated.

Our compliance requirements form an integral part of our general terms and conditions, which we updated in 2020.

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.

Competitiveness and Value Trends

We report on competitiveness and value trends in the combined management report.

» Value based management: https://reports.wacker.com/2020/annual-report/management-report/management-processes/value-based-management

» Sector-specific conditions: https://reports.wacker.com/2020/annual-report/management-report/business-report/sectors

» Opportunities report: https://reports.wacker.com/2020/annual-report/management-report/risk-management-report/opportunities-report

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 operates through 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.13 Energy Consumption

GWh	2020	2019	2018
Electricity consumption	**3,776**	4,023	3,974
Of which			
From on-site generation (fossil)	**988**	802	1,213
From on-site generation (renewable)	**248**	273	218
Energy consumption[1]	**3,785**	3,635	4,494
Of which			
Natural gas[2,3]	**3,764**	3,613	4,472
Solid fuels[4]	**–**	–	–
Heat supplied by third parties[5]	**21**	22	22

[1] Excluding energy from electricity provided by third parties, self-generated renewable energy and recovered energy
[2] Includes natural gas used for on-site fossil-fuel-based electricity generation
[3] For reporting years beginning in 2020, heat consumption is no longer itemized separately; most of it is contained in the figure for natural gas consumption.
[4] Coal, charcoal and wood; used as reducing agents at the silicon-metal plant in Holla, Norway
[5] Steam and district heating

D.14 Environment- and Safety-Related Incidents

	2020	2019	2018
Number of environment- and safety-related incidents[1], Wacker Chemie AG	19	15	30
Environment- and safety-related incidents at Wacker Chemie AG per 1 million hours worked[2]	**1.2**	1.0	1.9

[1] Pursuant to the criteria of the European Chemical Industry Council (Cefic Guidance for Reporting on the ICCA Globally Harmonized Process Safety Metric, June 2016)
[2] WACKER Process Safety Incident Rate (WPSIR)

D.15 Workplace Accidents Involving Permanent Staff and Temporary Workers

	2020	2019	2018
Accidents[1] per 1 million hours worked	**3.1**	3.3	3.4
Reportable accidents[2] per 1 million hours worked	**2.1**	1.7	1.4
Fatal accidents	**–**	–	–

[1] Accidents leading to at least one day off work
[2] Accidents leading to over three days off work

D.16 Number of Employees and Temporary Workers

	2020	2019	2018
Employees	**9,823**	10,093	10,033
Temporary workers	**92**	71	75

D.17 Environmental Indicators

	2020	2019	2018
Air			
CO_2 emissions[1]			
Direct (kt)[2]	**732**	702	848
Of which fossil (kt)	**732**	702	848
Of which biogenic (kt)	**–**	–	–
Indirect (kt)[3]	**1,022**	1,230	1,137
NO_X (nitrogen oxides) (t)	**400**	460	680
Non-methane volatile organic compounds (NMVOCs) (t)	**490**	490	560
Dust (t)	**27**	21	21
Water			
Water withdrawal (thousand m³)[4]	**230,740**	204,630	218,280
Waste			
Total	**121,320**	135,570	154,300
Disposed of (t)	**18,040**	30,370	25,280
Recycled (t)	**103,280**	105,200	129,020
Hazardous (t)	**65,500**	69,000	74,640
Non-hazardous (t)	**55,820**	66,570	79,660

[1] CO_2 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 the World Business Council for Sustainable Development. Scope 1: direct CO_2 emissions. Scope 2: indirect emissions from the generation of purchased energy (converted into CO_2 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] CO_2 emissions are broken down by 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 CO_2 emissions in a climate neutral manner – because it is not fed into the public grid. From 2020 onward, indirect CO_2 emissions also include methane and nitrous oxide emissions converted into CO_2 equivalents.
[4] From 2020 forward, the figure for water withdrawal also includes water volumes redirected to third parties.

Limited Assurance Report of the Independent Auditor Regarding the Combined Separate Non-Financial Report

To the Executive Board of Wacker Chemie Aktiengesellschaft, Munich

We have performed an independent limited assurance engagement on the non-financial statement of Wacker Chemie AG, Munich (further "Wacker Chemie AG"), according to § 315b of the German Commercial Code (HGB), that is combined with the non-financial statement of the parent company in accordance with § 289b HGB, (further "combined separate non-financial report") for the period from January 1 to December 31, 2020.

Management's Responsibility

The legal representatives of the Company are responsible for the preparation of the combined separate non-financial report in accordance with §§ 315b, 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 combined separate non-financial report and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the combined separate non-financial report that is free of – intended or unintended – material misstatements.

Practitioner's Responsibility

It is our responsibility to express a conclusion on the combined separate non-financial report based on our work performed within a limited assurance engagement.

We conducted our work in the form of a limited assurance engagement 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. Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance as to whether any matters have come to our attention that cause us to believe that the combined separate non-financial report of the Company for the period from January 1 to December 31, 2020 has not been prepared, in all material respects, in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB. We do not, however, issue a separate conclusion for each disclosure. As the assurance procedures performed in a limited assurance engagement are less comprehensive than in a reasonable assurance engagement, the level of assurance obtained is substantially lower. The choice of assurance procedures is subject to the auditor's own judgement.

Within the scope of our engagement we performed, amongst others, the following procedures:

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for Wacker Chemie AG
- A risk analysis, including media research, to identify relevant information on Wacker Chemie AG's sustainability performance in the reporting period

- Evaluation of the design and the implementation of systems and processes for the collection, processing and monitoring of disclosures, including data consolidation, on environmental, employee and social matters, respect for human rights, and anti-corruption and bribery matters
- Inquiries of group-level personnel who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating disclosures
- Inspection of selected internal and external documents
- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites
- Evaluation of local data collection, validation and reporting processes as well as the reliability of reported data based on a sample of the site in Charleston (USA)
- Assessment of the overall presentation of the disclosures

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for the assurance engagement.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and 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).

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the combined separate non-financial report of Wacker Chemie AG for the period from January 1 to December 31, 2020 has not been prepared, in all material respects, in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB.

Restriction of Use/General Engagement Terms

This assurance report is issued for purposes of the Executive Board of Wacker Chemie AG, Munich, only. We assume no responsibility with regard to any third parties.

Our assignment for the Executive Board of Wacker Chemie AG, Munich, and professional liability as described above was governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://kpmg.de/bescheinigungen/lib/aab.pdf). By reading and using the information contained in this assurance report, each recipient confirms notice of the provisions contained therein including the limitation of our liability as stipulated in No. 9 and accepts the validity of the General Engagement Terms with respect to us.

Munich, March 4, 2021
KPMG AG

Wirtschaftsprüfungsgesellschaft

Christian Hell **Carmen Auer**
ppa.

Multiyear Overview

€ million	2020	Change in %	2019	2018	2017	2016
Sales	**4,692.2**	—4.8	4,927.6	4,978.8	4,924.2	4,634.2
Income before taxes	**217.9**	>100	—591.2	324.4	335.0	246.4
Net income for the year	**202.3**	>100	—629.6	260.1	884.8	189.3
EBITDA	**666.3**	—14.9	783.4	930.0	1,014.1	955.5
EBIT	**262.8**	>100	—536.3	389.6	423.7	337.5
Fixed assets	**2,586.1**	—26.0	3,494.1	4,324.5	4,209.4	4,765.5
Intangible assets	**21.1**	—28.2	29.4	38.3	41.5	50.4
Property, plant and equipment	**2,393.2**	—9.8	2,652.6	3,527.0	3,501.7	4,596.4
Right-of-use assets	**110.8**	—7.5	119.8	—	—	—
Financial assets	**61.0**	—91.2	692.3	759.2	666.2	118.7
Current assets, incl. deferred taxes + prepaid expenses	**4,364.4**	45.6	2,996.9	2,794.2	2,626.3	2,696.1
Liquidity[1]	**1,338.0**	>100	545.2	383.1	505.1	409.7
Equity	**1,691.8**	—16.6	2,029.0	3,145.5	3,169.3	2,593.2
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	**1,252.1**	—21.4	1,593.8	2,714.1	2,746.1	2,006.3
Non-controlling interests	**66.6**	7.2	62.1	58.3	50.1	213.8
Borrowed capital	**5,258.7**	17.9	4,462.0	3,973.2	3,666.4	4,868.4
Provisions	**3,016.0**	19.4	2,525.0	2,051.1	2,042.8	2,550.7
Liabilities, incl. deferred taxes + deferred income	**2,242.7**	15.8	1,937.0	1,922.1	1,623.6	2,317.7
Net financial debt (–) Net financial receivables (+)	**—67.5**	—90.5	—713.7	—609.7	—454.4	—992.5
Total assets	**6,950.5**	7.1	6,491.0	7,118.7	6,835.7	7,461.6
Employees (average for the year)	**14,401**	—2.4	14,751	14,301	13,723	13,307
Employees (Dec. 31)	**14,283**	—2.6	14,658	14,542	13,811	13,448

[1] Securities, fixed-term deposits, cash and cash equivalents

€ million	2020	Change in %	2019	2018	2017	2016
Key profitability figures						
Return on sales (EBIT) = EBIT/sales (%)	**5.6**	>100	–10.9	7.8	8.6	7.3
Return on sales (EBITDA) = EBITDA/sales (%)	**14.2**	–10.7	15.9	18.7	20.6	20.6
Return on equity = net income for the year/equity (as of Dec. 31) (%)	**12.0**	>100	–31.0	8.3	27.9	7.3
ROCE – return on capital employed = EBIT/capital employed (%)	**5.6**	>100	–11.3	5.9	7.5	6.4
Key statement-of-financial-position figures						
Investment intensity of fixed assets = fixed assets/total assets (%)	**37.2**	–30.9	53.8	60.7	61.6	63.9
Equity ratio = equity/total assets (%)	**24.3**	–22.1	31.3	44.2	46.4	34.8
Capital structure = equity/borrowed capital (%)	**32.2**	–29.2	45.5	79.2	86.4	53.3
Cash flow and investments						
Cash flow from operating activities	**873.7**	44.4	605.0	509.6	613.0	621.0
Cash flow from long-term investing activities – before securities	**–176.0**	–58.2	–420.6	–423.4	–325.0	–420.3
Cash flow from financing activities	**117.1**	>100	–26.2	–240.5	–333.1	–135.8
Net cash flow = CF from operating activities + CF from investing activities – additions from finance leases	**697.7**	>100	184.4	86.2	358.1	361.1
Investments	**224.4**		379.5	460.9	326.8	338.1
Share and valuation						
Consolidated net income	**202.3**	>100	–629.6	260.1	884.8	189.3
Earnings per share (€) = consolidated net income/number of shares	**3.81**	>100	–12.94	4.95	17.45	3.61
Market capitalization (total number of shares without treasury shares)	**5,799.9**	72.6	3,360.2	3,929.5	8,057.8	4,910.7
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)	**116.75**	72.6	67.64	79.10	162.20	98.85
Dividend per share (€)	**2.00**	>100	0.50	2.50	4.50	2.00
Dividend yield (%)	**2.9**	>100	0.7	2.1	4.0	2.6
Capital employed	**4,111.4**	–20.7	5,183.5	4,917.0	5,138.3	5,300.4

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.

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.

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.

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 $SiO_2 \bullet nH_2O$. 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 (VOCs)

Volatile organic compounds (VOCs) 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 pools, 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 defined as the sum of cash flow from operating activities and cash flow from long-term investing activities (excluding 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 ROCE is calculated. 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.

List of Tables and Figures

Cover

A
For Our Shareholders

B
Combined Management Report

C
Consolidated Financial Statements

D
Further Information

Supervisory Board, Executive Board, Declaration on Corporate Management, and Non-Financial Report

2021
Financial Calendar

Interim Report on the
1st Quarter of 2021

Annual Shareholders' Meeting

Interim Report on the
2nd Quarter of 2021

Interim Report on the
3rd Quarter of 2021

Contacts
Publishing Details

Investor Relations
Joerg Hoffmann
Head of Investor Relations
Tel. +49 89 6279-1633
joerg.hoffmann@wacker.com

Media Relations
Christof Bachmair
Tel. +49 89 6279-1830
christof.bachmair@wacker.com

Publisher
Wacker Chemie AG
Corporate Communications
Hanns-Seidel-Platz 4
81737 Munich, Germany
Tel. +49 89 6279-0
Fax +49 89 6279-1770
www.wacker.com

Overall Responsibility
Jörg Hettmann

Project Coordination
Heide Feja

Concept and Design
Kirchhoff Consult AG, Hamburg, Germany
www.kirchhoff.de

The Annual Report was published on March 16, 2021. It is available online in English and German.
» **www.wacker.com/annual-report**

Wacker Chemie AG
Hanns-Seidel-Platz 4
81737 Munich, Germany
Tel. +49 89 6279-0
Fax +49 89 6279-1770
www.wacker.com