

**The Chemical Industry —
Creating Solutions
for a Sustainable World**

2021



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, 2021	Dec. 31, 2020	Change in %
Results / Return			
Sales	6,207.5	4,692.2	32.3
EBITDA ¹	1,538.5	666.3	>100
EBITDA margin ² (%)	24.8	14.2	n.a.
EBIT ³	1,134.3	262.8	>100
EBIT margin ² (%)	18.3	5.6	n.a.
Financial result	-40.7	-44.9	-9.4
Income before income taxes	1,093.6	217.9	>100
Net result for the year	827.8	202.3	>100
Earnings per share (basic/diluted) (€)	16.24	3.81	>100
ROCE (%)	28.3	5.6	>100
Financial Position / Cash Flow			
Total assets	8,134.3	6,950.5	17.0
Equity	3,100.4	1,691.8	83.3
Equity ratio (%)	38.1	24.3	n.a.
Financing liabilities	1,436.8	1,405.5	2.2
Net financial assets / net financial debt ⁴	-546.5	67.5	n.a.
Capital expenditures ⁵	343.8	224.4	53.2
Depreciation / amortization	-404.2	-403.5	0.2
Net cash flow ⁶	760.8	697.7	9.0
Research and Development			
Research and development expenses	164.2	156.6	4.9
Employees			
Personnel expenses	1,475.1	1,329.4	11.0
Employees (December 31, number)	14,406	14,283	0.9

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 result, and income taxes.

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)

February

WACKER acquired all the shares in Genopis Inc., a contract manufacturer of pharmaceuticals. This acquisition can be seen as a strategic step in expanding biologics market growth. Genopis was renamed Wacker Biotech US Inc. and manufactures pDNA for innovative therapeutic agents, such as nucleic acid-based gene therapies and vaccines.



May

Dr. Christian Hartel became Wacker Chemie AG's president & CEO. His predecessor, Dr. Rudolf Staudigl, retired at the end of the Annual Shareholders' Meeting on May 12. Angela Wörl joined the Executive Board as Personnel Director.



June

WACKER is setting a clear example when it comes to corporate climate protection and has become a sponsor of the KlimaWirtschaft foundation, whose aim is to establish effective free-market parameters conducive to climate protection.

Key Events | 2021

July

The WACKER SILICONE AWARD was presented to Martin Oestreich, professor of synthesis and catalysis at the Technical University of Berlin. His basic research is greatly advancing the development of innovative catalysts. WACKER presented the €10,000 award during the 19th International Symposium for Silicon Chemistry, held digitally this time due to the pandemic.



WACKER published its online Sustainability Report for 2019/2020. Sustainability is a core element of WACKER's business model and one of the company's five strategic goals.

August

A Sino-German research team received the 2021 Alexander Wacker Innovation Award for its innovative process to make vinyl acetate-ethylene (VAE) polymer dispersions. The work of Henry Chen, Zhong Chen, Dr. Bernhard Eckl, Wilhelm Kaiser, Nelson Wang and Dr. Hans-Peter Weitzel has set a new yardstick in terms of product throughput and energy consumption. The €10,000 award was presented to them during the WACKER Innovation Days.

October

WACKER acquired a 60-percent stake in sico Performance Material Co., Ltd., a specialty silane manufacturer. Based in Jining, China, sico is a leading producer of organofunctional silanes for high-performance adhesives, sealants, coatings and composite materials. WACKER, too, has decades of experience in this field and this partnership is a way of further expanding its range of high-quality specialty products in Asia.

Dr. Martin Bruder Müller, CEO of BASF SE, was invited to visit the Burghausen plant by WACKER CEO Dr. Christian Hartel. The meeting was mainly devoted to the question of how the German chemical industry could meet the goal of climate-neutral production.



December

WACKER presented its new, ambitious sustainable development goals. The company is to pursue specific projects and measures to halve its greenhouse gas emissions by 2030. The goals to cut emissions are in line with the Paris Agreement. As one of the world's leading manufacturers of specialty chemicals and polysilicon, WACKER is playing a major role in the energy transition and in reducing the impact of climate change. The company's aim is to achieve climate neutrality by 2045.

The Chemical Industry

Creating Solutions for a Sustainable World



For WACKER, sustainability has an economic, ecological and social component. We see sustainability as respect for humanity and for the environment – respect that is grounded in responsible stewardship. In order to best meet our responsibilities to our world, we have set new, ambitious sustainable development goals. We have formulated a concrete roadmap for cutting our CO₂ emissions in half by 2030 and will implement that roadmap consistently in the coming years. When it comes to protecting the climate, we are a driving force – in part because we also offer our customers solutions that allow them to achieve their own sustainability goals. Our applications and products for the global construction industry are one example of this. Throughout the world, the construction industry is by far the largest emitter of greenhouse gases, nearly 40 percent of which can be attributed to this sector. Cities, in turn, are the largest energy consumers. Even though they constitute just a few percent of the Earth's surface, cities account for over 70 percent of the demand for available energy. Our product portfolio offers solutions that conserve natural resources, save energy and reduce emissions. This annual report showcases the many different solutions we provide our customers with, including those in other industries, and demonstrates how we are forging ahead with sustainability at WACKER.

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DNA BARCELONA ARCHITECTS

Strategy

“We’re Halving Our CO₂ Emissions by 2030”

WACKER aims to be net zero by 2045. Here we speak with President and CEO Christian Hartel on the levers that are available to make that happen, on what he expects from the company’s suppliers and on how the Group will help its customers launch technologies that protect the climate.

Interview with Dr. Christian Hartel

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Mr. Hartel, WACKER has defined new sustainability goals. Why now? Why is that so important for a company like WACKER?

CH: Climate change is an enormous challenge, I think, and we need companies like WACKER that make their position clear and set ambitious goals. And those goals are what we need if we’re going to stop climate change and limit global warming to 1.5 degrees Celsius.

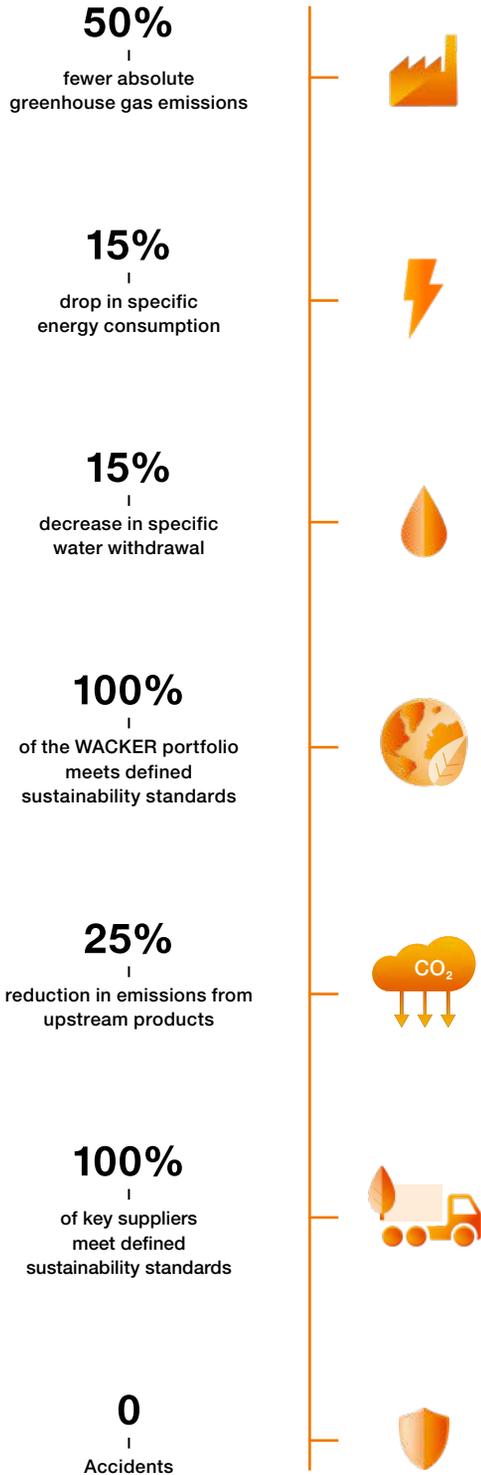
How do they differ from previous goals?

CH: The key difference is that we’re moving from specific goals to absolute goals. Up to now, we’ve always framed our efforts in terms of emissions per metric ton of finished product. But because the amount of product we make is constantly growing, that can lead to a situation where, while our production may be more sustainable, we’re still producing more emissions in an absolute sense. Now we have fixed goals that we plan to achieve – completely independent of our continued growth. That’s very ambitious.

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Dr. Christian Hartel
President & CEO

**Sustainable development goals
for the WACKER Group through 2030**



**What does that mean in concrete terms? What
is the most significant environmental objective that
WACKER aims to achieve by 2030?**

CH: Our most important goal – the one where we have the biggest change to existing targets – concerns greenhouse gas emissions. We’re aiming to cut those in half by 2030 – and again, we’re talking about absolute numbers, regardless of how much growth we experience.

Have you set any other goals beyond that?

CH: Yes, ones relating to efficiency. We’ve set two specific goals here: first off, we aim to make our energy consumption more efficient. And, second, we want to use water more conservatively, consuming less. The goal in both cases is a 15-percent reduction by 2030.

**We all know that putting the brakes on climate change
won’t come without a price. How much will WACKER have
to spend to actually achieve these goals?**

CH: Between now and 2030 is a long time, of course. But we’ve done some estimates. The investments we will have to make are certainly significant.

**How do investors feel about the company spending a
great deal of money on becoming more climate friendly?**

CH: That’s a very good question. After all, we’re taking a two-pronged approach to improving our ecological footprint. The one component is what I call “homework.” We have to improve our own production, our processes. We’ve made it our goal, for example, to reduce our greenhouse gas emissions by 50 percent. The other component – and this is what we feel is the even more powerful lever – relates to our specialty products. These products play a critical role in helping our customers launch solutions on the market that protect the climate and conserve resources. In other words, we see sustainability as more than just money that we spend to combat climate change. It’s also a huge business opportunity for us. Yes, we’ll have to invest more. And we will, for example, if we want to achieve carbon-neutral silicon metal production at our Norway site. But in the end – and this is far more important – we’re going to be generating additional business. So looking at it that way, I’m not really worried about “pouring money” into this. These are investments in the future – investments that are going to pay off.

“Our most important goal – the one where we anticipate the biggest change to existing standards – concerns our greenhouse gas emissions. We aim to cut those in half by 2030 – and again, we’re talking about absolute numbers, regardless of how much growth we experience.”

**Dr. Christian Hartel,
President & CEO**

So what proportion of our products go toward helping customers reduce their ecological footprint and become more sustainable? Is there any way to quantify that?

CH: Yes, we can quantify that. Products that allow our customers to reduce CO₂ or use resources more conservatively already make up over two-thirds of our overall portfolio. In terms of applications, that cuts across the industries that account for three-quarters of global emissions – starting with the energy sector and including mobility, construction and agriculture.

Could you give us some examples?

CH: We draw a distinction here between two types of products: on the one hand, those that make new technologies possible in the first place. Take our polysilicon, for example. It’s the most important starting material for solar cells. You can’t produce silicon-based solar cells without our material. On the other hand, we have products that support new environmentally sound technologies in order to make them better – technologies that, as a whole, have a major positive impact on the efforts to combat climate change. Our thermally conductive silicones are in this category. In electric vehicles, they do a much better job of dissipating the heat generated by the batteries and electronic components. If we look at all of WACKER’s products together, then a good two-thirds of them factor into our sustainable solutions expertise. I am confident that we’re in a good position there. And of course we’re not going to just rest on our laurels. We want to develop even more of these products for the future.

But when you make your products, you have to take account of not only greenhouse gases, but also other aspects, such as the extent to which the raw materials used are environmentally friendly.

Do you take that into account?

CH: Oh definitely, that all has to be part of the overall picture. And we’re well on our way there too: 90 percent of our products already meet defined sustainability criteria. And by 2030 we want to reach 100 percent – we want our entire portfolio to meet those standards, in other words.

What are the most important levers for actually achieving that?

CH: That’s a really important question, because we don’t want to just set ambitious goals, of course – we want to achieve them too. So let me mention the biggest levers:

First is carbon-neutral production of silicon metal. That’s one of WACKER’s main raw materials. Two-thirds of our products are based on silicon. And we see a lot of opportunity there, especially when it comes to carbon-neutral production of silicon metal at our own site in Holla, Norway.

The second major lever consists of process-optimization projects and new methods for using CO₂ as a raw material. Through our RHYME Bavaria project, for example, we’re aiming to take green hydrogen and CO₂ from existing production processes to produce green methanol.

And the third lever is green energy. Many of our processes have already been electrified – over 60 percent of them, which makes us the global leader in the chemical industry. Once we manage to switch our electrified processes over to green energy, we’ll very quickly have another, extremely powerful lever for improving our own footprint.



**WACKER endeavors
to be net zero
by 2045.**



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“By investing in sustainability,
we are going to be able to
generate additional business.
That is a huge opportunity
for us.”

That all sounds very positive. But what do you see as the biggest challenges and obstacles along the way? Where are the stumbling blocks?

ch: Moving forward with these projects and initiatives doesn't just happen all by itself, of course. A lot of processes first have to be developed from scratch. But we have a clear concept pointing us in the right direction. And as far as green energy is concerned, it just stands to reason that you have to have enough of it available on the market. And that means Germany and the rest of Europe are going to have to expand renewable energies at a much faster pace.

As you've said, WACKER's goals are ambitious. Will the company be able to achieve those goals on its own, or will it need support from other companies – like suppliers, for example?

ch: The goals we've been discussing are all ones that we're taking upon ourselves. But becoming net zero isn't something any single company can do on its own. Being a chemical company means we buy a lot of raw materials, and those

raw materials can also carry a lot of carbon “baggage” so to speak. It's what's known as Scope 3 emissions, which arise along the supply chain. For WACKER, those emissions are five times as high as the greenhouse gas emissions generated by our own production lines. And that's why we also expect our suppliers to meet defined sustainability criteria and, furthermore, significantly reduce their own greenhouse gas emissions – by 25 percent by 2030.

I'd like to finish with a personal question: what does sustainability mean to you personally?

ch: For me, sustainability means preserving what we had in the past and what we have today. Our climate, for example. Nature, the forests, water. But that also applies to our relationships, to people, to jobs. It means preserving an environment that supports human well-being. It means preserving a world where the quality of life is the same for future generations as it was for us.

Thank you for giving this interview.

Net Zero by 2045



Value Up

By empowering our teams, we enable our customers to provide more sustainable solutions.



Footprint Down

We create efficient and safe operations, use resources responsibly, avoid waste and minimize our footprint.



Collaboration Beyond

As a contributing member of society, we strive for a sustainable value chain together with all our partners.





We press ahead with sustainable solutions

using our certified WACKER Sustainable Solutions program. We manage our product portfolio in line with defined sustainability criteria.



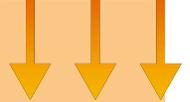
We prioritize climate-friendly technologies

and our products facilitate renewable energy generation, electromobility, and climate-friendly construction techniques.



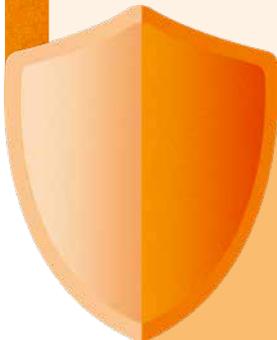
We reduce our emissions

by adopting targeted measures – for instance, we use sustainably generated charcoal instead of coal, develop green-electricity strategies and implement efficiency drives in our production plants.



We prioritize safety

by adopting safety strategies in our plants and by running employee programs designed to promote an awareness of safety.

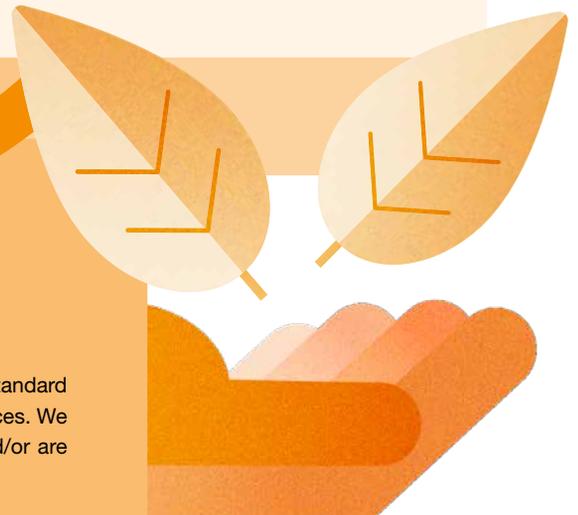


We save water

by reducing our wastewater load through pretreatment, recycling and recirculation and by making efficient use of water in our production processes.

What we procure is sustainable:

our suppliers have been inspected in line with the TfS standard and can prove the sustainable nature of their business practices. We use raw materials that produce less CO₂, are renewable and/or are extracted sustainably.



Integrated Production

Waste Nothing, Use Everything



A tangle of buildings crossed by countless pipelines: at first sight, WACKER's site in Nünchritz is difficult to fathom. And yet this complex, integrated setup is the key to low-waste and energy-efficient production. It's worth taking a closer look, as the best is gotten out of every atom and every kilowatt-hour of electricity here, sometimes even several times over.

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From theory to practice: Dr. Jutta Matreux has been the Nünchritz site manager since 2019. Prior to that, she coordinated the Group's worldwide sustainability management. She can now actively shape the implementation of sustainability goals.

The site's highest platform is right at its center. This is the roof of the pyrogenic-silica production facility and Dr. Jutta Matreux's favorite spot. Only the long, thin reaction columns nearby are taller than the site manager here. She likes having a look around from these lofty heights. "From here, I don't just get the best view of our Nünchritz site," says Matreux, "I can also see how it is nestled into the surrounding landscape." To the west, the Elbe river slowly flows by. At the northern fringe, the nearest residential housing can be seen – looking tiny from up high. Opposite, there is a local recreational area and nature reserve. The mountains of the Saxon Wine Route can be made out in the distance and the Elbe Sandstone Mountains rise majestically on the far horizon. "We have a particular responsibility here," continues the site manager, "For our products, people and the surrounding environment." It is all interconnected, on both a large and a small scale.

Production at the WACKER site in Nünchritz is particularly low in waste and highly energy-efficient. This is confirmed by the latest environmental-performance indicators: in the period since WACKER took over the site 20 years ago, solid waste, wastewater volumes, exhaust air load, effluent burden and carbon dioxide emissions have each been reduced by more than 90 percent per metric ton of gross production. "An impressive achievement, considering the site was greatly expanded during this time," adds Matreux, not without pride. Total gross production has increased by a factor of 26 over



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Silo facilities for pyrogenic silica, which WACKER both sells under the HDK® brand and reuses in its own plants. For example in silicone sealants, which are filled into ready-to-use cartridges in Nünchritz and distributed to end customers.

these last 20 years. From the roof, the recipe for success is visible directly below her: processing plants with hundreds of thousands of individual components that together make up a highly integrated system. Here, everything is recycled. Waste products and byproducts from one production stage are fed back into production elsewhere – as raw materials or in the form of energy, for instance. Almost everything procured by the site is converted into salable products.

Efficiency Is More Than the Sum of Individual Parts

A bird's eye view of the Nünchritz site looked quite different in 1998. On an aerial photograph from back then, Matreux shows that not only was the total area much smaller than it is today – a closer look reveals that the few plants were also rather cut off from one another. Fewer pipelines connected them with each other. In short, it was not yet a closed integrated production system. Capital expenditures of €1.7 billion have since greatly altered the appearance of the site. Plants along the chemical reaction pathways for synthesizing silicones and polysilicon were expanded or rebuilt. A highly integrated structure was always the focal point here. Matreux is confident when she says, "A chemical site like this one can only be operated economically with closed material and energy loops." This holds true to this day. The considerable expansion since WACKER took over has allowed the integrated loops to be aligned and optimized. The history of the WACKER site in Saxony shows

that sustainability and profitability do not just belong together, they depend on each other.

"A chemical site like this one can only be operated economically with closed material and energy loops."

Dr. Jutta Matreux

Site Manager of WACKER's Nünchritz Plant

The heart of the integrated materials system – the hydrogen chloride plants – is located in the northeast of the site. Hydrogen chloride, a colorless gas, is used in two loops – one for silicone, one for polysilicon. It is the real champion of the integrated production system here. At various stages of production, hydrogen chloride gets the inherently inert starting materials silicon and methanol to react again and again. It combines with methanol to form chloromethane, for example. Chloromethane, in turn, reacts with metallurgical-grade silicon in a fluidized-bed reactor to yield a mixture of different methylchlorosilanes (Müller-Rochow process). Distillation of the silanes and subsequent hydrolysis, or alcoholysis, produce siloxane, pyrogenic silica and various silane byproducts. The latter are processed into silicone fluids or specialty silicones, for instance, and sold. Hydrogen chloride itself is recovered, purified and used again.



Thick sets of pipes transport raw materials, byproducts, products, steam and production-plant media exactly to where they are needed. The integrated production approach of German chemical sites has been very successful since the 1990s.

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The integrated hydrogen chloride system is also the key to polysilicon production with added value. Ground metallurgical-grade silicon reacts with gaseous hydrogen chloride to form trichlorosilane. Rods of pure polycrystalline silicon – polysilicon – are then obtained from this ultrapure liquid. The hydrogen chloride released here is also fed back into the loop.

“We try to circulate every single molecule of hydrogen chloride and reuse it several times,” underscores Matreux. Statistically speaking, a single chlorine atom can therefore be reused up to eight times in comparable integrated production systems. The idea is to waste nothing and make use of everything. Hydrogen chloride is nevertheless inconspicuous, because, except for very small, salable residual amounts, it is not contained in any of WACKER’s subsequent sales products.

HDK® Links the Loops

Recycling of hydrogen chloride is not the only distinguishing feature of the integrated production system, however. There is also the clever combination of byproducts to create new sales products. The best example of this is pyrogenic silica. The plant where it is produced has the roof with the beautiful view mentioned earlier. So, let’s leave the roof and enter the building.

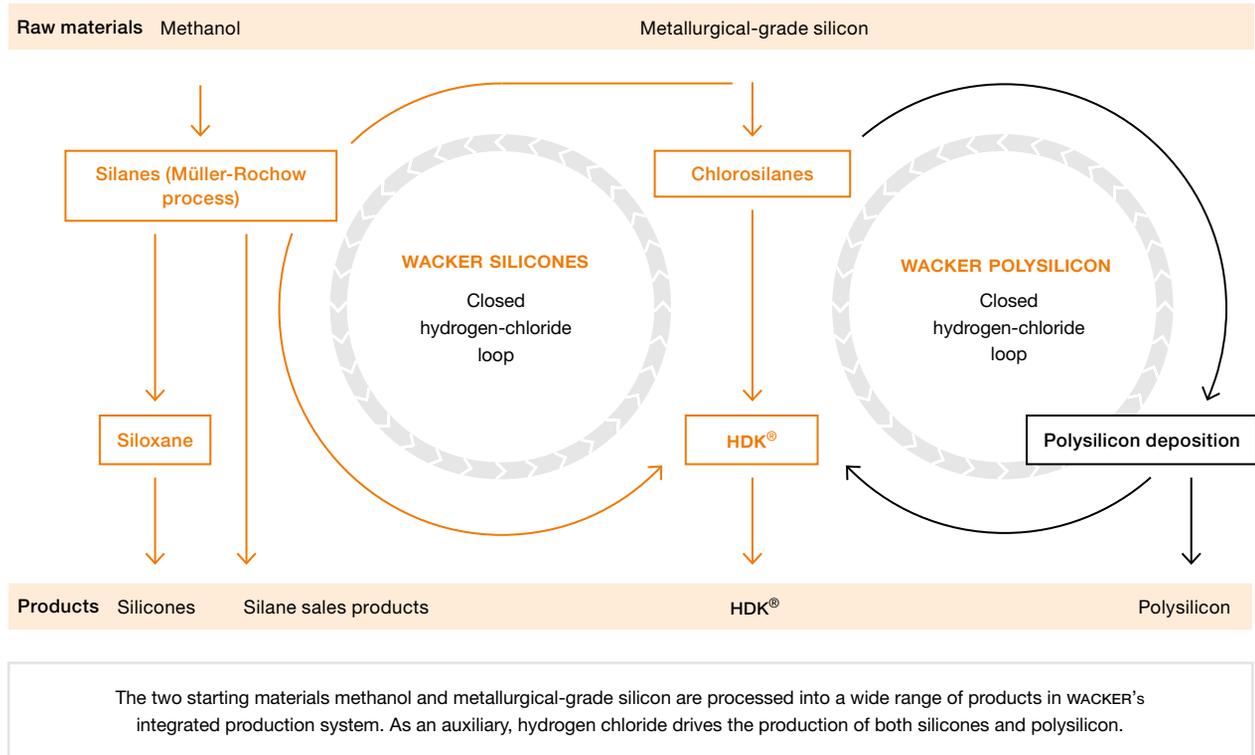
This is where you’ll encounter pyrogenic silica, which WACKER markets as HDK®, in the form of a fine white powder. As a kind of Swiss army knife of auxiliaries and additives, it finds use in a wide range of applications – from easy-flow ketchup to finely pressed tablets to optimized automotive paint. HDK®

is marketed directly as a sales product. Additionally, in the integrated production system, it links the polysilicon loop with the silicone loop like no other product. The manufacture of ultrapure polysilicon generates chlorosilanes among other things, which can be converted into pyrogenic silica in the HDK® facility. This HDK® is, in turn, used elsewhere: in the modification of silicones, for instance, to increase their strength or flowability.

Currency of the Future: Energy and CO₂

The energy loop is less obvious, but equally important for a highly integrated production system. The Nünchritz site needs around one terawatt-hour of electricity per year for its energy-intensive production setup. The majority of this is sourced from the public grid. “Every watt that is not consumed doesn’t cost us anything either,” says Matreux. Given the recent record electricity prices, this is a big lever. Beside electricity, steam is the site’s main energy source. WACKER generates steam from natural gas in an environmentally friendly manner at its own thermal power plant. Where possible, waste heat and steam from chemical energies are directed to other plants and used there. The site’s own residue incinerator extracts the last little bit of energy even from materials that can neither be processed further nor sold. “We don’t just attach great importance to conserving resources, we also strive to make the best possible use of our production-plant media such as energy, steam, electricity and water,” she explains. The association of northeast German chemical companies (Nordostchemie) recently honored our success in this regard. It bestowed its Responsible Care® Award 2021 on the Nünchritz site for particularly high CO₂

Integrated Production in Nünchritz



savings in its production processes. Measures to improve heat recovery, together with options to reuse energy, have led to a reduction in the use of primary energy (natural gas) at the Nünchritz cogeneration plant and a cut in the site's annual CO₂ emissions by 30,000 metric tons. What is more, the site now covers around 70 percent of its overall steam needs through heat recovery.

Its highly integrated production system is WACKER's major strength. The best possible use is made of energy and materials – making, for example, ultrapure-polysilicon

production with added value feasible in the first place. Purpose-designed production pathways, reuse and recycling of raw materials, and energy efficiency are key to sustainable and economical production. These kinds of measures are in demand more than ever going forward in order to achieve global climate goals. At the Nünchritz site, employees are already working on new projects. As part of a groupwide decarbonization roadmap, they are testing further technologies that could be used in Nünchritz. They are doing this to ensure that the integrated production system will remain true to its history over coming years and will keep getting better.

The WACKER Group's Integrated Production Sites

Nünchritz (Saxony, Germany) isn't WACKER's only integrated production site. Burghausen (Bavaria, Germany) and Zhangjiagang (China) are too. They are likewise characterized by predominantly closed production loops, in which, for example, 93 to 96 percent of hydrogen chloride is reused. By supporting each other, these sites also form a groupwide integrated system. Nünchritz, for

instance, is the global hub for siloxanes, which are held there in large volumes and then shipped to the other sites. This ensures that the continuously producing integrated system can keep going even during planned shutdowns or maintenance. WACKER employs state-of-the-art environmental technology and adheres to stringent EHS standards at all three integrated production sites.

Energy Supply

An Energy Mix in Changing Times

WACKER has set itself the goal of halving its specific energy consumption by 2030 compared with 2007 – which is a challenge. Stefan Henn, in charge of Energy and Utility Supply at the Burghausen Plant, is working with his team on ways to turn this vision into reality.

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The heart of the WACKER Group is a 2.6 km² production site in Burghausen, a small town in southeast Germany. Located near the Austrian border, this site has been manufacturing a large part of the Group's products for over 100 years. The size of the site is vast, with production facilities as far as the eye can see. Industrial plants and pipelines cover an area larger than the Principality of Monaco. The energy required at the Group's largest production site is correspondingly high. The demand for electricity alone accounts for about 0.5 percent of German electricity consumption, with electricity, alongside process steam, being the most important source of energy for production.

Broadly speaking, Stefan Henn and his team have taken on the mammoth task of determining the makeup of the energy mix of the future and of making it as climate-friendly as possible. As head of Energy and Utility Supply in Burghausen, he is working on one of the greatest challenges facing the German chemical industry at present: the transition to supplying as much climate-friendly energy as possible.

This kind of task requires tremendous commitment as well as mental agility and sheer hard work. "At present, we are focusing intensely on our energy strategy for 2030," says Henn, who has been working at the chemical group for 26 years. When he was appointed head of the Energy and Utility Supply department at Burghausen just over a year ago, he started working flat out on the company's future energy



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Stefan Henn is in charge of energy supply at the Burghausen site. He and his team aim to turn the vision of carbon-neutral production into reality.

strategy. "We must start right now to get an overview of the situation in order to have solutions at hand very soon," he says.

The energy project began in July 2021. According to the targets now set by the Group, greenhouse gas emissions are to be halved by 2030, compared with emissions in 2020. The same applies to specific energy consumption, which is to be cut in half, compared with 2007. Henn and his colleagues are in charge of finding ways to achieve not only these two goals, but even more targets in the future. They form a 20-strong project team of energy experts, planning engineers, purchasers of raw materials, and Controlling staff, who are all involved in devising a broad range of strategies. “We are looking at all the possible ways of reducing carbon emissions produced by our site’s energy supply.”

Green Electricity from Hydroelectric Power

A trip back in time shows that a sustainable energy supply has played an important role since the early days of the plant. The deciding factor for the choice of location more than one hundred years ago was hydroelectric power. That was the only way of obtaining the enormous amount of electricity needed for energy-intensive electrochemical processes.

The company’s founder had a 16-kilometer canal dug in order to transport water from the Alz river to one of Germany’s largest privately run industrial hydroelectric plants, known as the Alzwerke. Since it came into operation in 1922, WACKER’s own hydroelectric plant has provided production with green hydroelectric power. “Renewable power was a crucial location factor for WACKER,” Henn explains. “Initially, the Alzwerke hydroelectric plant was able to cover 100 percent of the company’s power needs as well as supplying households in the surrounding area with electricity.”

On average, the hydroelectric plant produces 265 million kilowatt-hours of electric power a year, enough to supply 90,000 households with electricity. However, the Alz canal has another added benefit for the site: the canal runs through the site from east to west and provides it with cooling water.

“Historically, there are many facilities operated here with continuous-flow cooling,” says Henn. “The Alz canal also feeds our emergency power supply, which is in constant operation, so we don’t need any large diesel generators that have to be started up in an emergency before they can provide electricity.”

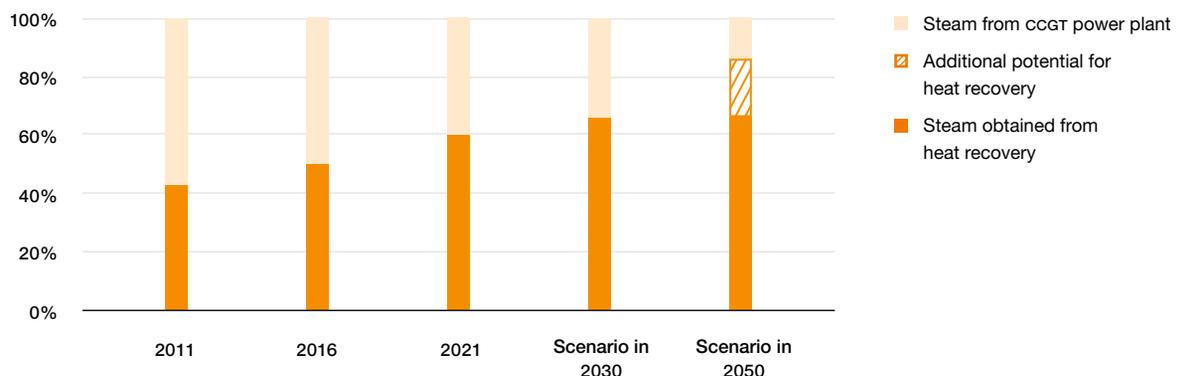
An Energy Mix in Changing Times

The hydroelectric plant supplies an enormous amount of energy but its capacity is limited. We cannot simply increase the amount of water taken from the Alz river, nor can we change the transport volume of the canal. However, what has changed is the energy required by the plant. Back in the 1940s, power generation and consumption were virtually the same. Modernization work and more powerful turbines brought short-term relief in the 1950s. But even back then it was quite obvious that the power station would not be able to meet the plant’s energy needs in the long term.

Today, the amount of energy which the hydroelectric plant supplies to Burghausen is roughly 10 percent. WACKER buys in around 55 percent of its power from external electricity suppliers. The remaining 35 percent is produced in a combined heat and power plant on site, where natural gas is converted into electricity and process steam. The steam, in turn, provides the energy for the chemical processes in production.

The combined-cycle gas turbine power station in Burghausen is one of the most advanced of its kind, with 90-percent fuel efficiency. This means that as much as 90 percent of the energy contained in natural gas is converted into usable electricity and heat. How much is produced depends on the steam required by the plants. “In general, the facilities in Burghausen are heat-driven,” Henn explains. “That means that the amount of process steam required in the plant defines the amount of electricity produced.”

Steam obtained from heat recovery at the Burghausen site
Share of total demand is rising constantly



Optimized use of heat and process steam in production are crucial for Burghausen’s energy strategy. WACKER has therefore invested a great deal in heat recovery – with successful results.

Take polysilicon production, for example. The deposition of hyperpure silicon for the solar and semiconductor industries is particularly energy-intensive. The process takes place in bell-shaped reactors which are heated to 1,000 degrees Celsius. Thanks to an ingenious system, a large portion of the heat can be recovered and fed back into the site network as steam.

60-Percent Steam Recovery

This and other measures mean that every year the site has been able to feed more energy from production back into the heat-integration system. In 2011, approximately 40 percent of the steam needed came from heat recovery, while today that amount has risen to 60 percent. And that’s not all: in Henn’s opinion, the plant may well produce a mere 20 percent of the required steam in 2050. The much larger amount – 80 percent or more – will be provided by heat recovery.

“For every kilogram of steam saved by heat integration, we reduce the amount of natural gas needed to generate steam, thereby cutting climate-damaging CO₂ emissions too,” says Henn, adding that WACKER had its roots in energy-intensive electrochemistry and that looking for and raising optimization potential had always been important. “Dealing efficiently with energy, whether it be electricity or heat, is basically in WACKER’s DNA.”

Alternative Sources of Energy

Henn is convinced that emissions will continue to fall drastically in the future. “If we are striving for carbon-neutral production in Burghausen as a vision for the future, we have to sound out all the options right now.” Henn’s team is testing, for example, whether the heat supply can be changed over to heat pumps. It is also examining whether the CO₂ that forms during steam generation can be separated and used as a material. Procuring solely green electricity from external energy suppliers in the future is another option that WACKER’s energy experts are looking into. “Nothing is off limits,” says Henn, “we have CO₂ in our sights and are really assessing every possibility we have to reduce emissions.”

What is technologically feasible, what is economically viable? Which energy sources can be used sustainably? And what do we have to invest in to achieve net-zero production? Stefan Henn and his team are currently focusing on these issues and drawing up sustainable scenarios for the future.



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The Alzwerke power station has been supplying WACKER’s Burghausen plant with hydroelectricity for more than 100 years.

They are getting plenty of encouragement and backing from management: “You can just tell that energy is becoming a topic of increasing importance to us as a chemical company,” he explains.

The challenges are enormous, however, not only for Burghausen. Energy suppliers and companies in the region are also working on net-zero solutions. WACKER is therefore taking an active role in industrial and research projects which are developing scenarios on how to cope with the demand for green electricity in the region.

The recently initiated project entitled “Trans4In – Energy Transformation in ChemDelta Bavaria,” an initiative launched by the Research Institute for Energy in Munich (FfE), is focusing, for example, on possible ways of achieving carbon neutrality in the region. These ideas were prompted by the predicted energy consumption in the industrial sector and by the kind of impact the demand for green electricity would have on energy generation and energy transport in the region.

Many things still need to be clarified – alongside technological issues, the basic political parameters for such a transformation. One thing is certain, Stefan Henn says emphatically, “as one of the largest electricity consumers in ChemDelta Bavaria, WACKER’s Burghausen site will do its bit toward developing sustainable regional solutions on the road to climate neutrality.”

Biomass Balance Approach

Renewable Raw Materials Have a Future

WACKER already offers organic polymer and silicone products that are manufactured with significantly fewer fossil raw materials. Instead, byproducts of the wood industry or raw materials derived from biomass are used. A certified method is used to provide end-to-end verification that renewable raw materials are used in production through to the end product.

For a long time, attitudes to chemical products could still be summed up in a quotation from the ancient statesman Pericles; “Don’t judge them by their provenance but by their performance.” Of course, the 5th century BC politician was talking about people. But end consumers and industrialists no longer view chemical substances solely according to what they can do in day-to-day use, and with good reason. In view of increasing raw materials scarcity and global warming, customers are asking more and more about the origins of such products and what ingredients they contain.

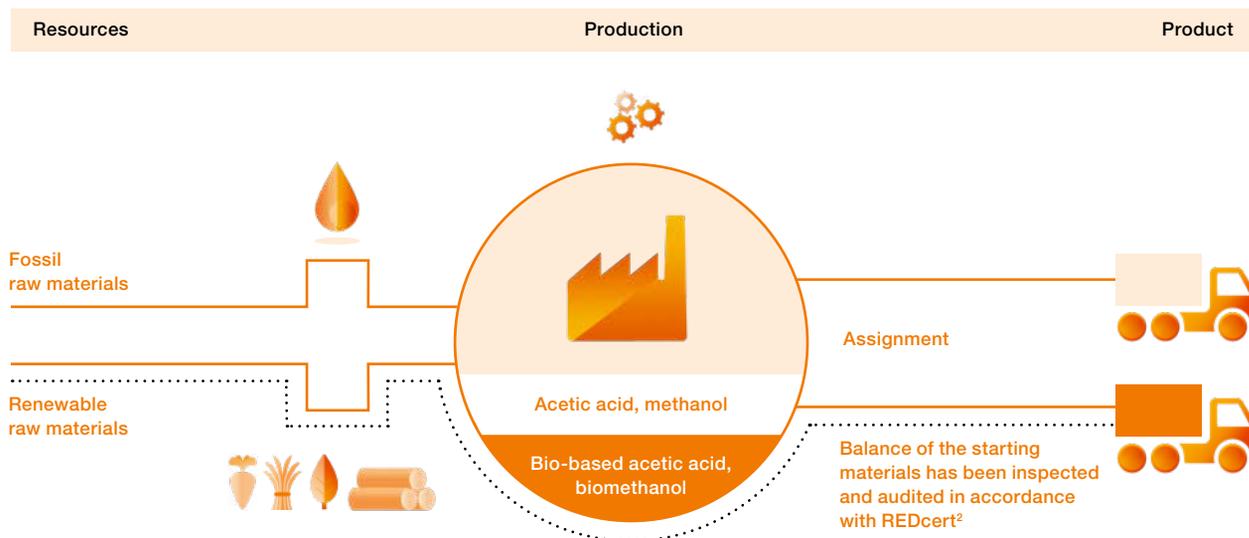
This is also confirmed by a recent survey of industrial customers of the WACKER POLYMERS business division. 75 percent of customers in the Europe, Middle East and Africa region report that sustainability is an important or even very important issue for them. The use of bio-based raw materials is also top of the priority list for many of the respondents.

But how can this desire to employ renewable raw materials be realized in practice? The apparently simple recipe for processing renewable raw materials instead of fossil-based ones in existing production facilities is full of pitfalls: it presupposes that every raw material has a bio-based counterpart that is available in sufficient amounts and in comparable quality. Such an approach would make production considerably more expensive. A bio-based raw material usually costs more than its petrochemical counterpart. Since the properties of the product are not otherwise improved, only a few customers would probably be prepared to pay a surcharge for sustainability.



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Packaging bonded in a way that
conserves resources: companies such as
Kiilto, a Finnish formulator of adhesives,
rely on VINNAPAS® eco.

Biomass Balance Approach



WACKER uses the biomass balance method whenever both fossil and renewable raw materials are processed in the same production plant. The amount of bio-based acetic acid or biomethanol used in the supply chain in relation to the amount of eco products sold meets the demands of the REDcert² certification scheme. Compliance is inspected and audited by third parties.

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WACKER therefore proposes taking a different route and processes plant-based alternatives alongside petrochemical raw materials. One example is acetic acid – an important chemical building block for the manufacture of polymeric binders based on vinyl acetate-ethylene copolymer. The acetic acid for such products has been derived from petrochemicals until now. But there are alternatives. Acetic acid, which occurs as a byproduct of wood processing, can be used in just the same way.

Bio-Based Methanol Replaces Fossil Counterpart

The same applies to methanol. Along with silicon, it is a key raw material in silane and silicone synthesis. While WACKER used to take the methanol it required from fossil sources, it now increasingly uses plant-based methanol. The products have exactly the same properties and can be processed in the same way. Chemically and physically, the eco and standard products are absolutely identical.

The amount of bio-based raw material determines what products may be labeled as resource-efficient ones. “The biomass balance method thus guarantees that the amount of eco products corresponds to the ratio of the renewable raw materials used,” explains Dr. Peter Gigler, who is responsible

for sustainability at Group level. “If you buy an eco product from us, you can be sure that a corresponding amount of the renewable raw material is also used in production. Our calculations are scrutinized annually by external auditors.”

The biomass balance approach is now used for 68 products. For example, WACKER POLYMERS offers over 20 VINNAPAS[®] grades in an eco version: vinyl acetate-ethylene copolymer binders are used, for example, for enhancing mortars, as tile adhesives or for formulating adhesives, wall paints and self-leveling flooring compounds.

Such VAE copolymers are manufactured mainly from vinyl acetate and ethylene. For VINNAPAS[®] eco products, the business division uses vinyl acetate from acetic acid derived from wood processing and pulp production. The wood comes entirely from forests certified as sustainably managed. WACKER POLYMERS is also looking for alternatives to ethylene, the second key raw material in VAE. “We are continually looking for further bio-based raw materials and are making every effort to expand our raw-materials base for the biomass balance,” says Linn Mehnert, head of sustainability, environment, health and workplace safety at WACKER POLYMERS.

The eco campaign is attracting great interest from customers. “Demand for VINNAPAS® eco is growing steadily,” says Dr. Christine Wagner, who is responsible at WACKER POLYMERS for marketing in the EMEA region: The traditional Finnish company Kiilto, a purchaser of VINNAPAS® eco since its launch, offers, e.g., its own adhesives range under the name Kiilto Pro Pack eco for customers in the packaging and paper industries. Kiilto’s Business Area Director Tomi Takala is confident about the eco approach: “A hallmark of our activities is our especially strong commitment to developing environmentally friendly solutions. VINNAPAS® eco helps us to live up to our claim to be a pioneer in matters of sustainability.”

Eco Products Are in Demand

The WACKER SILICONES business division, too, is experiencing growing business in its eco products. Its traditional brands, such as BELSIL® and ELASTOSIL®, have long been available as “eco” versions. “Well-known cosmetics manufacturers are already using BELSIL® eco. We already offer 13 eco products, which, for example, makes lipstick kissproof and ensures silky easy-to-comb hair,” says Dr. Claudius Schwarzwälder, global segment manager for consumer care products.

Axel Schmidt, too, is noticing strong interest by key account customers. He is responsible for Sealants & Adhesives, and is thus responsible for ELASTOSIL® eco joint sealants. Though WACKER SILICONES produces joint sealants and also fills them into ready-to-use cartridges, they are marketed by the customers. “We already have the first consumers who have integrated the ELASTOSIL® eco label in their cartridge design,” says the manager with a touch of pride. Homeowners and professional users throughout Europe would now be able to use sustainably manufactured silicone sealants for any conceivable construction and renovation project.



DEHESIVE® eco silicone release coatings make it easy to remove labels and are produced in a way that conserves resources.

Demand for eco silicones is increasing in other industries, too. And it is therefore only fitting that the business division continually expands its product portfolio. Silicone-based polishes and care agents (LIOSIL®), foam-control agents (PULPSIL®, SILFOAM®), release coatings (DEHESIVE®, CRA®) and textile softeners (WETSOFT®) are now available in fossil-free versions. “To manufacture one kilogram of BELSIL® eco DM 350 silicone fluid, up to 0.89 kilograms of biomethanol is used as replacement for the fossil methanol and other fossil-based raw materials,” calculates Erich Schaffer, responsible for sustainability at WACKER SILICONES.

The highest sustainability standards apply here, too: only certified biomethanol from straw, grass cuttings or sugar beet residues is used – i.e. from biomass that cannot be used for food production. The grass cuttings, for example, come from the green verges alongside freeways and may not be fed to animals.

WACKER’s eco initiative shows that high-performance products based on renewable raw materials are no pipe dream. “The time is right. We sense that many customers and end consumers are more than ready to switch to sustainably manufactured products,” says Peter Gigler. It is still early days, but the trend is clear. “With our mass balance approach, we are starting a transformation toward the use of bio-based raw materials. We will take our customers with us and constantly adjust our portfolio according to the growing demand,” says the sustainability expert. “And one day, we will even build and operate plants that only process alternative raw materials.”



Sustainable sealing: biomethanol-based production includes the manufacture of ELASTOSIL® eco silicone sealants

Selected Products

The Enablers



Mobility of the Future

It all started with electric current: in 1881, French engineer Gustave Trouvé built the world's first electrically powered vehicle – his tricycle. Carl Benz did not manage to introduce a vehicle with a combustion engine until five years later. For generations of drivers, his engine concept has remained the only alternative, at least until now. The electric car – emissions free and therefore climate friendly – is enjoying a boom. Ten million electric vehicles are already on the road worldwide. In Germany, every tenth new car is electric. Uniting maximum range, safety and ride quality poses immense challenges to automakers, battery manufacturers and suppliers of materials. Thanks to silicones from WACKER, those challenges can be met. Heat-conducting silicone pastes cool electronic equipment and extend the life of the car's battery. Flexible silicone gels protect sensitive electrical components and absorb mechanical vibrations and thermal stress. Heat-resistant silicone blends insulate electric motors and wiring harnesses and provide reliable sheathing for adapters and cable connections. Silicones are also essential as sealants in alternative approaches to energy storage, such as fuel cells. WACKER products do important jobs in the cockpit as well: highly transparent silicones, for instance, eliminate glare in XXL displays, making them easy to read – even when the sun is shining.



Sun, Wind and Water

Climate change cannot be stopped without solar and wind power. They are the energy sources of the future. According to the International Energy Agency (IEA), these renewables will meet some 70 percent of global electricity demand by 2050. And WACKER products have a major role to play here. One very compelling example is polysilicon. This shiny silver material is indispensable in photovoltaic systems and thus for generating solar power. Solar arrays consist of other components as well, however: solar cells, electronic systems, cable connections and protective glass all have to be assembled, installed and fixed in place. WACKER provides the silicone rubber sealants and encapsulants needed to do the job. These products, which are robust and resistant to both UV and weathering, help solar arrays produce electricity reliably. The use of silicone-based heat transfer fluids from WACKER is becoming increasingly common in solar thermal processes as well.

Wind turbines are marvels of technology. With diameters now reaching 200 meters or more, their rotors are made using specialty adhesives modified with pyrogenic silica from WACKER. Silicones, too, have many different uses here: they insulate electrical cables and protect housings and sensitive electronic components from moisture, dirt and vibrations. Hydroelectric power plants benefit from WACKER products too. Silicones protect power generators against vibrations and prevent partial discharges in stators.

Alternatives to Meat

The world population is eating more meat than ever. Studies show that increasing meat consumption has a significant environmental impact. There are various approaches to finding new options here, and WACKER offers a range of solutions for alternative proteins.

The amino acid cysteine, for example, is a component of plant-based meat alternatives, where it contributes to a meat-like flavor. WACKER has developed a fermentation-based production process for cysteine. Because its starting products are derived entirely from plants, cysteine from WACKER is strictly vegan and particularly suitable for use in plant-based alternatives.

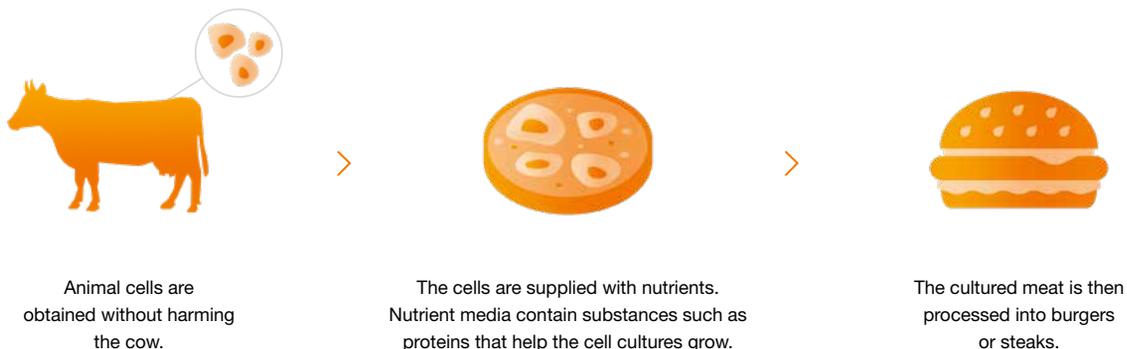
When plant materials rather than animal products are used in the manufacturing process, texture and consistency pose a challenge as well. Cyclodextrins from WACKER offer a solution. Produced from starch, these sugar molecules interact with the fats and proteins in food, making it possible to improve properties such as texture or spreadability in products like vegan ham salad. Cultured meat is another alternative to conventionally produced meat, and WACKER offers a number of media components for this production process. The culture medium where the cells grow consists of amino acids, among other substances, representing a further application for vegan cysteine from WACKER.

Growth factors – another essential component of the medium – are responsible for stimulating cell growth without the addition of animal components. WACKER is working with Israeli startup Aleph Farms on production processes for growth factors, which are currently major contributors to the cost of manufacturing. High manufacturing costs have been one of the obstacles to commercializing the technology up to now. WACKER aims to offer affordable solutions going forward in order to help cultured meat become established on the market as a sustainable alternative.



Energy-Efficient Construction

The construction industry has a decisive role to play in the fight against climate change. Buildings now account for one-third of global energy consumption. Scientists assume that building emissions will have to be reduced by 80 to 90 percent if we are to limit global warming to 1.5 degrees Celsius. Energy efficiency is the key to achieving that goal. As a partner for the construction industry, WACKER offers a full array of solutions that make construction and housing more sustainable. The use of polymeric binders in tile adhesives, for instance, can save enormous quantities of sand and cement. The amount consumed drops by as much as 80 percent, the actual amount being determined by the individual substrate. Tile adhesives are not the only products that WACKER modifies with polymers, however: polymers also go into waterproofing membranes and interior paints. Powdered wall paints, which WACKER sells under its NEXIVA® brand, contain neither biocides nor preservatives. These paints can be dispersed with water before use. This makes it possible to produce precisely the right amount of paint, resulting in less waste. Exterior insulation and finish systems (EIFS/ETICS) in building facades represent a particularly significant source of potential energy savings. Here they reduce heating costs in cold regions and electricity consumption for cooling in hot climates. Benefits of polymeric binders include improved adhesion between insulating panels. What is more, hydrophobic, breathable silicone resin emulsion paints from WACKER head off moisture saturation, allowing materials to retain their insulating capacity.



Supply Chain

Approaches with Fewer Emissions

In 2021, WACKER spent €3.8 billion on sourcing energy, goods and services – a huge figure that indicates enormous potential for sustainability. To leverage that potential, Procurement is opening up new avenues to lowering our carbon footprint.

“Proof of sustainability is already on hand for 96 percent of the company’s purchasing volume from key suppliers,” says Dr. Erk Thorsten Heyen, head of Procurement. He feels WACKER is in a good position to comply with Germany’s Supply Chain Act: “Supplier questionnaires from the Together for Sustainability procurement initiative offer a tool for reviewing whether suppliers respect human rights.”

The packaging used for shipments has become more sustainable as well. WACKER sells hundreds of millions of liters of silicone fluids and polymer dispersions, for example, in IBC containers, which it increasingly gets made from recycled polyethylene. Reconditioned steel drums and packaging bags made of unbleached virgen fiber will likewise improve the company’s carbon footprint. “Two years ago, a lot of customers were still rejecting powder bags that weren’t white,” Heyen recalls. “The more environmentally friendly version has since taken hold.”

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Reducing its carbon footprint is the key issue for the supply chain going forward. Suppliers’ Scope 3 emissions are to be reduced by 25 percent by 2030. Scope 3 encompasses all those supplier emissions relating to WACKER’s procurement that arise throughout the supply chain. In 2020, this category encompassed over five times more CO₂ emissions than were generated by WACKER’s production activities (“Scope 1”).



100 percent of container shipments leaving Burghausen for maritime ports are sent by rail.

According to Heyen, WACKER has significantly reduced its emissions from shipping. A few years ago, for example, the company worked with partners to invest in a container terminal in Burghausen for ChemDelta Bavaria. The majority of the container shipments from Burghausen are sent by rail from here to sea ports. WACKER also receives the lion’s share of its raw materials by rail. In addition, the chemical company has been working systematically to optimize the capacity utilization of containers and trucks, thereby reducing the corresponding emissions.

The major CO₂ advances will have to come from top raw materials, however. For the past two years, WACKER has been asking its suppliers of key raw materials to provide a product carbon footprint – and then works with the supplier to find ways of reducing that footprint. Silicon metal – the source of the silicones and polysilicon from which solar cells and semiconductor chips are made – is an example of a material offering a great deal of potential. Production of silicon metal has traditionally been the single largest item on the list of Scope 3 emissions. “Using green electricity and firing furnaces with charcoal rather than fossil-based coal can reduce emissions by more than 70 percent,” Heyen says. He adds, however, that doing so depends on one thing: “If costs go up, customers and suppliers will have to agree on how to shoulder those costs.”

Polysilicon

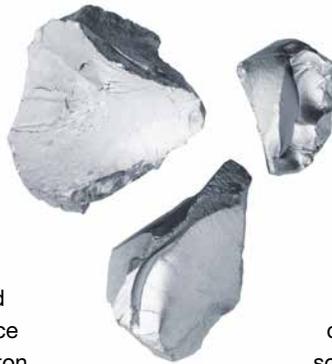
Ultrapure Silicon for Solar Power

Polysilicon with 99.999999 percent purity – WACKER is making a significant contribution to the clean energy of the future. A semiconductor is the most important starting material for both computer chips and solar cells. Turning quartz sand into a photovoltaic system involves many technically sophisticated steps, which determine how efficiently the energy from the sun will be converted. In this way, WACKER, a global market leader with over 60 years' experience in manufacturing polysilicon, is paving the way for the renewable energy revolution.

Early each morning, Jim Tharp drives to work through a picturesque landscape. The Hiwassee River winds around the town of Charleston and past the WACKER plant, before flowing into the Tennessee River. In this rural Appalachian region, hydropower dominates; solar energy played hardly any role for many years. But ever since WACKER opened its polysilicon site in Charleston, USA, the solar age has arrived there, too.

In Charleston, Jim Tharp is in charge of producing hyperpure silicon – one of the linchpins of our carbon-neutral future. WACKER's 2020 solar silicon production alone will, over the lifetime of the resulting solar modules, offset around 450 million metric tons of carbon dioxide emissions. That is equivalent to 30 years of carbon emissions for a city the size of Hamburg.

Global climate protection is increasing the need for power from renewable energy sources. In a defossilized future, electrical industrial furnaces, e-vehicles and heat pumps will need more and more green electricity. The International Energy Agency (IEA) sees solar energy as the “new king.”



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Ultrapure polysilicon is produced from quartz sand. It is a key raw material for photovoltaics.

From 2022, it will break records year after year as storage technology makes huge advances and the costs for solar electricity fall faster than any other kind of energy generation. In some countries, electricity from new solar installations will soon be cheaper than electricity from existing coal-fired power stations. The production of a solar cell currently recoups the energy input after about one year.

This is also partly due to continual improvements in cell efficiencies together with falling manufacturing costs. Jim Tharp and his colleagues are part of this growth story, since ever more efficient cells demand ever purer silicon.

WACKER is one of the pioneers in the manufacture of polysilicon. The Munich-based chemical corporation has been researching and developing the manufacture of hyperpure polysilicon since 1954, for example for transistor radios, which superseded tube radios in the 1960s. What's more, WACKER has produced special polysilicon for the solar industry since 2000, first in Burghausen, in Nünchritz since 2011 and, since 2016, in Charleston.

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Jim Tharp heads
Polysilicon Production
at Charleston.

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Photovoltaics supplies
inexpensive electricity
in huge amounts.

WACKER has boosted product quality and productivity by automating and optimizing its processes. “WACKER’s production is the best and the most stable,” Tharp states proudly. The Group’s biggest advantage is its integrated production system, in which byproducts and waste are recycled into other products.

In addition, production is almost entirely electrified. Sophisticated energy management reduces the energy consumption and thus the carbon footprint of the polysilicon. For example, the waste heat generated during cooling the polysilicon generates steam for distillation. In total, therefore, WACKER’s polysilicon production only generates half as much carbon dioxide emissions as some of its competitors.

An Exceptional Material

The polysilicon made in Charleston is sold not only to the solar industry but in particular to the semiconductor market. However, for the latter, it has to be even purer. “We are talking about impurities of the order of a trillionth part, which we can measure and control,” he stresses. Due to its high quality, the material is therefore highly sought after on the current tight market among manufacturers of semiconductor wafers.

If you hold one of the silvery shimmering chunks in your hand, it’s not at all obvious how irreplaceable this material is for the sustainable energy revolution and digitalization. Though the starting material itself is abundantly available. Silicon is the second most plentiful element in the Earth’s crust, where it is found as the compound silicon dioxide, for example in quartz sand.

Turning quartz sand into a solar cell is a long and complicated process. First the quartz sand is heated to 2,100 degrees Celsius in an arc furnace and purified in several steps. The gray lumps of metallurgical-grade silicon already consist of 99 percent silicon atoms.

Pure, Purer, WACKER

But 99 percent is nowhere near enough for semiconductors or solar cells. The metallurgical-grade silicon must be made much purer. This is where Jim Tharp in Charleston steps in. He and his team turn the silicon lumps that are delivered in containers into a high-tech raw material, the silvery shimmering ultrapure polysilicon. “It all depends on achieving maximum purity and quality – every day, every hour,” he says.

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An Appetite for Chips: Semiconductor Polysilicon

When it comes to manufacturing semiconductor-grade polysilicon, WACKER is one of the pioneers and has many decades of experience in this field. The process is similar to that for solar-grade silicon, but even more challenging, since considerably higher purities have to be obtained. This polysilicon is required for microchips. They are the

key technology for the smart connected world. The purer the polysilicon, the smaller, faster and more powerful are the microchips. The Munich-based chemical group is a global market leader in this segment. Almost every second microchip in the world - whether in an oven, cellphone or car – was manufactured with polysilicon from WACKER.

To achieve this, the silicon in Charleston passes through a series of highly complex processes. First it reacts with hydrogen chloride to convert it into liquid trichlorosilane. The liquid is then efficiently purified in large quantities in tall distillation columns. WACKER has perfected this process like no other company. After distillation, the concentrations of critical impurities lie in the range of parts per trillion (ppt). One ppt corresponds to a concentration of 10 grams of sugar in ten billion liters of water – as much as can be held by one million tank trucks. It is the purest material ever to be industrially manufactured.

The ultrapure distilled trichlorosilane is heated to about 1,000 degrees Celsius and passed over thin silicon rods. The trichlorosilane decomposes and the polycrystalline silicon is deposited on the surface of the rods. Subsequently, it is crushed to create the Charleston plant's end product: silvery shimmering polysilicon.

Making the Solar Roof

From Charleston, the hyperpure silicon still has a long journey ahead before it does its job as a computer processor or can be installed on the roof of a house to convert solar energy into electricity. Two to three containers a day leave the plant, says Tharp. They are shipped to Asia, for example, where most solar and semiconductor wafer manufacturers are based. These companies melt the polycrystalline silicon by heating it to a few degrees above its melting point, which is a good 1,400 degrees Celsius. Then a small silicon seed crystal is dipped into the liquid, and slowly drawn out of the melt over a great many hours. As the polysilicon solidifies, it grows on this crystal to form a tall and extremely heavy monocrystalline silicon ingot. The several meters-long monocrystal is sawn into wafers for the high-efficiency monocrystalline solar cells. The wafers are processed into



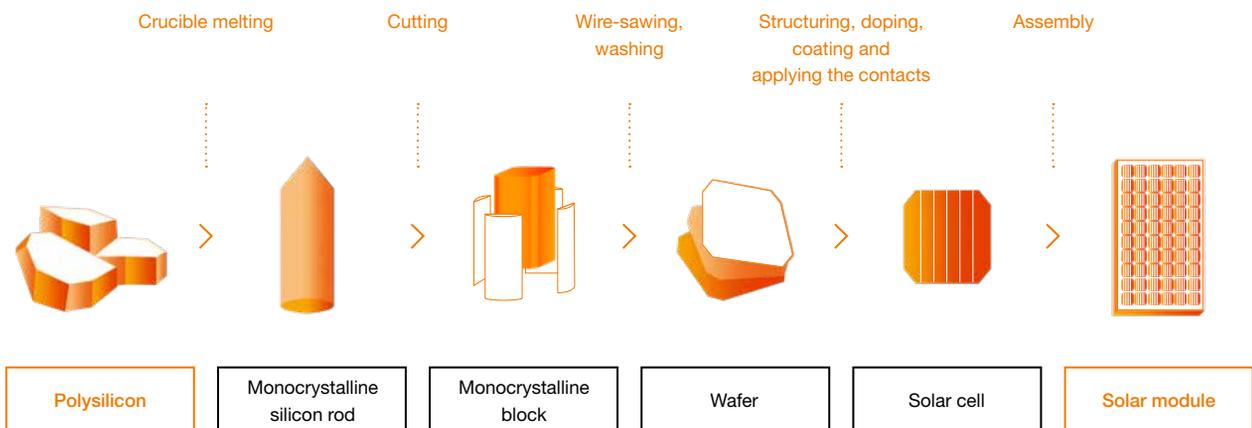
The secret of the ultrapure polysilicon lies in process control during distillation.

individual solar cells and finally assembled into modules. The modules themselves can be combined as required: from roof installations through to solar farms in the desert.

A Glittering Future

Even though Jim Tharp hasn't got a solar array on his roof yet, photovoltaics is on course for rapid growth in his home country. U.S. President Joe Biden reckons that a tenfold increase in solar power is on the cards in the next 15 years. By 2050, almost a half of all electricity could be generated with solar power. In other parts of the world, too, the auspices are good for photovoltaics becoming the most important energy source of the future. 2020 saw world record growth of 22 percent – good prospects for energy from the sun and polysilicon as the most important raw material.

From Polysilicon to Solar Module



Defossilization

Renewable Substances for Chemical Processes



Carbon, hydrogen and methanol are important base materials in chemistry. We need them to be able to manufacture silicon and silicones. WACKER is looking for alternatives to fossil fuels for its processes. Charcoal instead of coal. Green hydrogen instead of gray hydrogen. At the same time, CO₂ must become a raw material rather than a waste product.

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WACKER's Holla site in Norway is situated on the deep-blue Hemnefjord, surrounded by green hills. The silicon metal produced here is transported by cargo ship from the company's own dock.



“We want to replace coal with charcoal in the production of silicon. In this way, we aim to save as much as 430,000 metric tons of CO₂ a year.”

Silje Gridsvåg
Head of the
Holla Charcoal project

Coal and charcoal hardly differ in terms of appearance: both are black with a shiny, silvery surface. But in terms of how they were formed, they couldn't be more different. Coal formed over millions of years when, deep below the earth's surface, under high pressure and temperature, plant residues turned into coal. Therefore, it is a fossil fuel. However, charcoal is produced when wood is heated at high temperature with a lack of oxygen. This makes it a renewable fuel.

Silicon Metal for Silicones and Polysilicon

Coal is an important raw material in the production of silicon metal – which is the case at WACKER, too. At its plant in Holla, Norway, the company produces approximately 70,000 metric tons of silicon metal a year – accounting for 25 to 30 percent of the Group's annual requirements. The raw material is transported from Holla to Burghausen and Nünchritz, where silicones and polysilicon are made from silicon metal for the solar and semiconductor industries.

The manufacturing process in Holla involves a reduction process, in which quartz (silicon dioxide) is reduced with coal in electric arc furnaces at 2,000 degrees Celsius. This is how the oxygen is removed from the silicon dioxide. The result is metallurgical-grade silicon. Coal, which used to bring the quartz to a red-hot glow, is now to be replaced by charcoal or other plant-based compounds. “Our aim is to thereby save up to 430,000 metric tons of CO₂ per year,” says Silje Gridsvåg, who heads WACKER's Holla Charcoal project. 430,000 tons – that's the amount of CO₂ emitted if some 800,000 cars drove from Burghausen (Bavaria, Germany) to Holla (Norway) and back, a distance of 2,250 kilometers one way (including the ferry).

The Holla project is currently in the validation phase. Silje Gridsvåg is sounding out different technologies in discussion with possible partners. Whether the charcoal will be purchased or whether WACKER will produce the charcoal itself in the future has yet to be decided. What is certain is that the wood will come from sustainable forests.

The next step is to get a pilot facility up and running in Holla. Initially, the idea is to save several thousand metric tons of charcoal per year. “After that, we want to upscale the process,” says Gridsvåg. The aim is to gradually replace coal with charcoal. Once the entire production setup has been switched over, 430,000 metric tons of CO₂ a year will be saved.

“Using biomass is deemed to be carbon neutral as only the carbon dioxide that the plants have utilized is released during combustion,” she explains. CO₂ emissions cannot be completely avoided during the production of silicon. “We talk about ‘unavoidable’ emissions as there is no other relevant production process,” says Gridsvåg. “However, unavoidable does not mean that the CO₂ cannot be used.”

CO₂: From Waste Product to Raw Material

At the moment, the CO₂ generated in processes, such as silicon production in Holla, is a waste product that is emitted into the atmosphere. WACKER aims to change that. “We have several ideas about how to use CO₂ as a raw material in the future,” says Peter Gigler. He is in charge of another WACKER project aimed at defossilizing production, known as RHYME Bavaria. The acronym RHYME stands for Renewable Hydrogen and Methanol. The project is to be implemented at WACKER's Burghausen site in Bavaria, hence the name RHYME Bavaria.

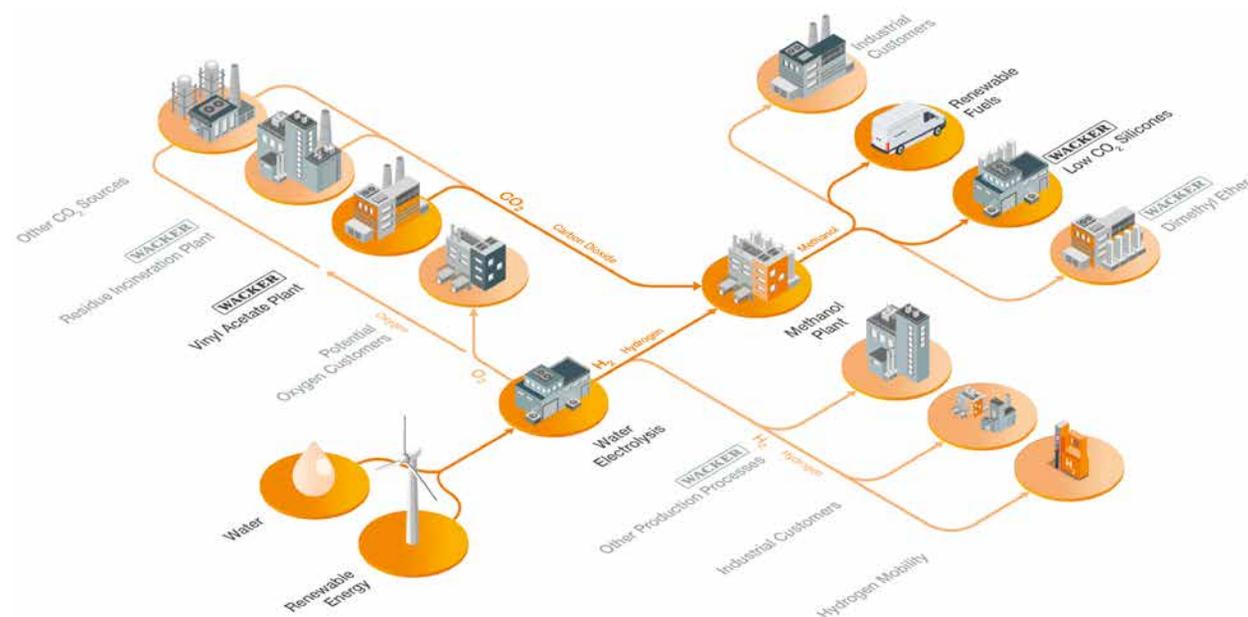


“Producing one metric ton of hydrogen generates approximately 10 metric tons of CO₂, whereas green hydrogen is carbon-neutral. The production of green methanol does not involve any CO₂ either.”

Dr. Peter Gigler
Head of the RHYME Bavaria project
and responsible for sustainability issues

RHYME Bavaria

Production Processes Based on Green Hydrogen Might Look Like This:



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WACKER wants to build a 20-megawatt electrolysis plant in Burghausen to generate hydrogen using electricity from renewable sources. The next step will be to convert this hydrogen into methanol in a synthesis plant using CO₂ from existing processes. “This is how to turn the waste product CO₂ into a value-added raw material,” says Gigler. Around 20,000 metric tons of CO₂ are to be saved as a result. “What’s more, unlike the conventional synthesis of hydrogen and methanol, the new methods will cut CO₂ emissions by as much as 100 percent.”

Up until now, conventional hydrogen has been used in production processes at WACKER. This is also known as gray hydrogen, gray meaning that this hydrogen has been obtained from fossil fuels. Usually, it is natural gas which is converted under heat into hydrogen and CO₂. This is a proven process which does, however, have an adverse effect on the environment. “Producing one metric ton of hydrogen generates approximately 10 metric tons of CO₂, whereas green hydrogen is carbon-neutral. The production of green methanol does not involve any CO₂ either,” he says.

Both hydrogen and methanol are important starting materials for a wide range of chemical products. Silicones for medical products, polymer fibers for the textile industry, ultrapure silicon for photovoltaic applications, plastics for packaging, adhesives, paints and much more. “Green hydrogen and renewable methanol have the potential to defossilize industry,” says Gigler. “With RHYME Bavaria we want to show that this is technically feasible.”



Green hydrogen – a key element in defossilization

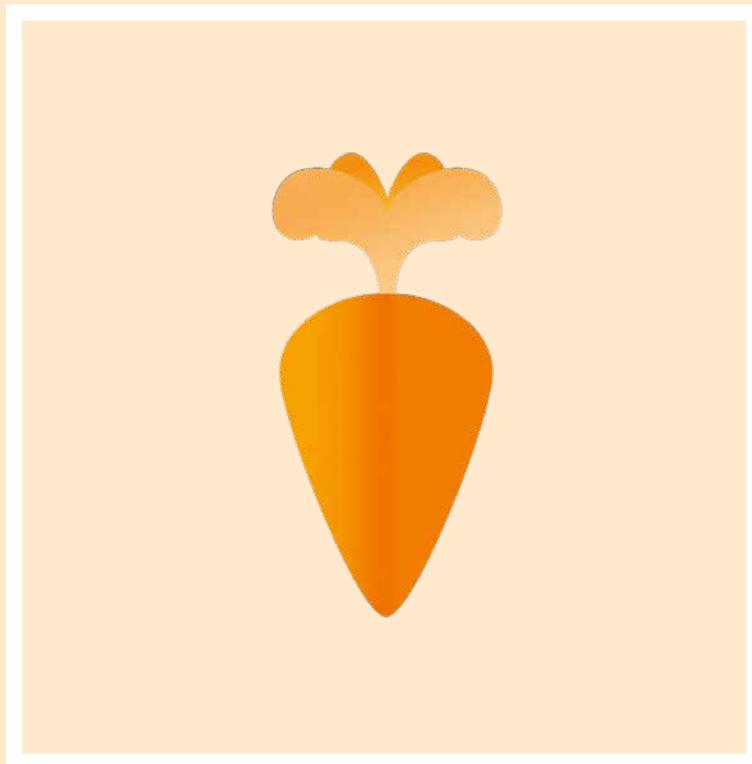
Producing renewable hydrogen and methanol is not yet economically viable. “We need large quantities of renewable energy at affordable prices,” he says, adding that, to be cost-effective, the limit had to be 4 cents per kilowatt-hour. WACKER has applied for funding for RHYME Bavaria. If the funding application is approved, the facilities could go on stream by late 2025.

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For Our Shareholders

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WACKER uses bio-based key raw materials made from plant residues, for example biomethanol in silane and silicone synthesis. Biomethanol is chemically and physically identical to the standard raw material.

a



For Our Shareholders

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Dear Shareholders,

For the second year in a row, the coronavirus pandemic made exceptional demands on us all. It had a strong impact on our actions and behavior, and compelled us to show a high degree of flexibility. Many companies found it difficult to mitigate the effects of the pandemic. Many procedures and processes we had taken for granted were no longer applicable.

In economic terms, WACKER made it through this period well – even better than expected. For WACKER, 2021 was a record-breaking year. Group sales entered a new dimension, surpassing the six-billion-euro mark for the first time. This increase was down to strong organic growth across all four of our business divisions. EBITDA more than doubled to over €1.5 billion – despite a significant year-over-year increase in raw-material prices. Higher EBITDA had a positive impact on net income for the year, which came in at €828 million.

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Other KPIs were also indicative of a strong business year.

At €761 million, net cash flow was even better than the already high prior-year figure. The strong cash inflow from operating activities enhanced the company's financial stability even further. At year end, we posted net financial assets of around €550 million. To sum up: 2021 was the most successful year in the company's history.

This success will have a positive effect on the size of the dividend. At the Annual Shareholders' Meeting in May, the Supervisory Board and Executive Board will propose a dividend of €8.00 per share. That means we are distributing around 50 percent of Group net income to you, our shareholders.

Our success in the past fiscal year was chiefly due to the efforts of our employees. It is they who have enabled WACKER to keep its production and business operations running in a flexible, coordinated and extremely disciplined manner since the start of the pandemic. This took tremendous effort. I personally am proud of how our WACKER team has mastered this difficult situation. That is why I and the entire Executive Board wish to thank each and every WACKER employee and pay them our respects for this great achievement. In recognition of this exceptional performance, we paid all our employees an additional bonus in 2021.

WACKER is back on a growth trajectory and we want to grow even faster going forward. Already in 2021, we increased our capital expenditures to over €340 million. At the same time, we rounded off and strengthened our portfolio with two key acquisitions. WACKER SILICONES, our biggest division, took a 60-percent stake in SICO, a manufacturer of specialty silanes based in China. This acquisition expands our technological expertise in the world's most important chemical market and broadens the range of high-quality specialty products we can offer our customers.

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Our purchase of Genopis, a US-based plasmid DNA manufacturer, completes WACKER BIOSOLUTIONS' portfolio as a contract development and manufacturing organization for the pharma industry. It also gives us our own production capacity in the United States, an important biopharmaceutical market. Both these acquisitions are key to our future growth strategy.

All of WACKER's business divisions achieved substantial increases in their sales in 2021. This growth was due to a significant rise in volumes and to better prices. Among our chemical divisions, WACKER SILICONES posted a strong rise in EBITDA. Despite higher raw-material prices, WACKER POLYMERS almost matched its prior-year EBITDA figure. WACKER BIOSOLUTIONS grew its biotechnology business and

achieved a slight increase in EBITDA. WACKER POLYSILICON performed exceptionally well. Sales and earnings surged due to volume growth – also for semiconductor-grade polysilicon – and to substantially higher prices for solar-grade silicon as well as improvements in the cost of goods sold.

Shape the Future, the efficiency program we launched two years ago, was another factor in the positive earnings trend. In 2021, it helped us save around €160 million in costs. This year, our objective is to achieve savings of more than €200 million and to bring the program to an end. From 2023 onward, we expect to see annual cost savings of €250 million.

We are now setting our sights on the future and beginning the next chapter in our success story.

The first highlight will be the new and ambitious sustainability goals we presented last year. For us, there are two aspects to sustainability. First, we are going to significantly improve our own ecological footprint: by 2030, we want to reduce our absolute greenhouse gas emissions by 50 percent. Second, the growing importance of sustainability in all areas of life is opening up attractive business opportunities for us. The products and applications we offer enable our customers to achieve their own sustainability goals. More than two-thirds of our product portfolio already contribute to this value driver. One thing is clear: without our chemicals it will not be possible to tackle the challenges posed by climate protection.

Our new growth targets, which we aim to achieve by 2030, are another highlight. Our unique, diverse and solution-driven product portfolio offers us additional profitable business opportunities – opportunities we intend to make the most of. That is precisely what our customers and the markets expect of us. We have already received a lot of positive feedback from our customers in this regard. At the end of

March, we will present our new growth strategy to the capital markets. The course is clear: we want to accelerate our growth in the years ahead. Without the trust of our customers this would not be possible – customer satisfaction is the key to our long-term success.

What are our goals for 2022?

The dynamic growth of last year will continue this year. We expect to see another significant increase in sales, which will grow to around €7 billion. We expect EBITDA to come in between €1.2 billion and €1.5 billion, with the higher figure on par with last year. However, price increases for some of our key raw materials, coupled with high energy prices, are creating strong headwinds in this area. Overall, we currently expect this to have an impact of around €1 billion on EBITDA. That will dampen earnings. WACKER's capital expenditures will rise this year, with planned CAPEX set to be clearly higher than depreciation/amortization. Our focus will be on meeting strong customer demand at our chemical divisions, on expanding our biotechnology business and on producing semiconductor-grade polysilicon.

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We have taken a big step forward in reforming our company pension model, reaching an agreement on key aspects of the reform with the employee representatives. Starting this year, we will offer new recruits in Germany retirement benefits in the shape of direct commitments on a funded basis. We will secure the pension entitlements earned via a trust company, which will use its assets solely to finance the pension obligations. That will reduce our provisions for pensions going forward and thus lessen the burden on our financial position.

We were unable to realize our plan to sell our 30.8-percent stake in Siltronic AG to Taiwan-based GlobalWafers. Germany's Ministry of Economic Affairs and Climate Action did not approve the sale before expiry of the contract closing period on January 31, 2022. We regret the ministry's decision, as we remain convinced that Siltronic and GlobalWafers would be stronger as a single entity than each company is on its own. Together, they would have been the world's No. 2 silicon wafer manufacturer, with exceptionally strong roots in Europe. Nevertheless, the ministry's decision does not alter our medium-term goal of selling our investment in Siltronic AG.

This letter to shareholders, detailing the events of last year and the future outlook for our company, is my first. 2021 was a very eventful year for WACKER and also for me personally. We made progress in a number of areas – and we continue to focus on the future.

I am convinced that WACKER has excellent potential to continue achieving profitable growth – and we want to make the most of this.

We have a clear strategy, meaning we know the direction in which we want to go.

Our finances are solid. We have the financial scope to grow.

We are close to our customers, which is our key to long-term success.

We are focused on sustainability, meaning we are doing our homework and leveraging our expertise in solutions for sustainability to ensure our future business success.

We are developing the right products in line with our aspiration of “creating tomorrow’s solutions.”

We have an outstanding team – people who work together with enthusiasm to build a positive future.

That is why I ask you, our shareholders, to continue placing your trust in us. Stay with us on the path ahead.

I thank you – also on behalf of the entire Executive Board – for the confidence you have placed in us thus far. I also wish to express my gratitude to all our customers and suppliers for their partnership and also for their understanding – amid supply bottlenecks, material shortages and logistics problems, last year was not always easy.

WACKER stands for the future – and for the optimism to shape it.

Munich, March 2022

A handwritten signature in black ink that reads "Christian Hartel". The signature is written in a cursive, flowing style.

Dr. Christian Hartel

President & CEO of Wacker Chemie AG

Executive Board



DR. TOBIAS OHLER

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

ANGELA WÖRL (since May 12, 2021)

WACKER POLYMERS

Human Resources
(Personnel Director)
Executive Personnel
Intellectual Property
Corporate Engineering
Region: Asia

DR. CHRISTIAN HARTEL President & CEO (since May 12, 2021)

WACKER POLYSILICON
WACKER BIOSOLUTIONS

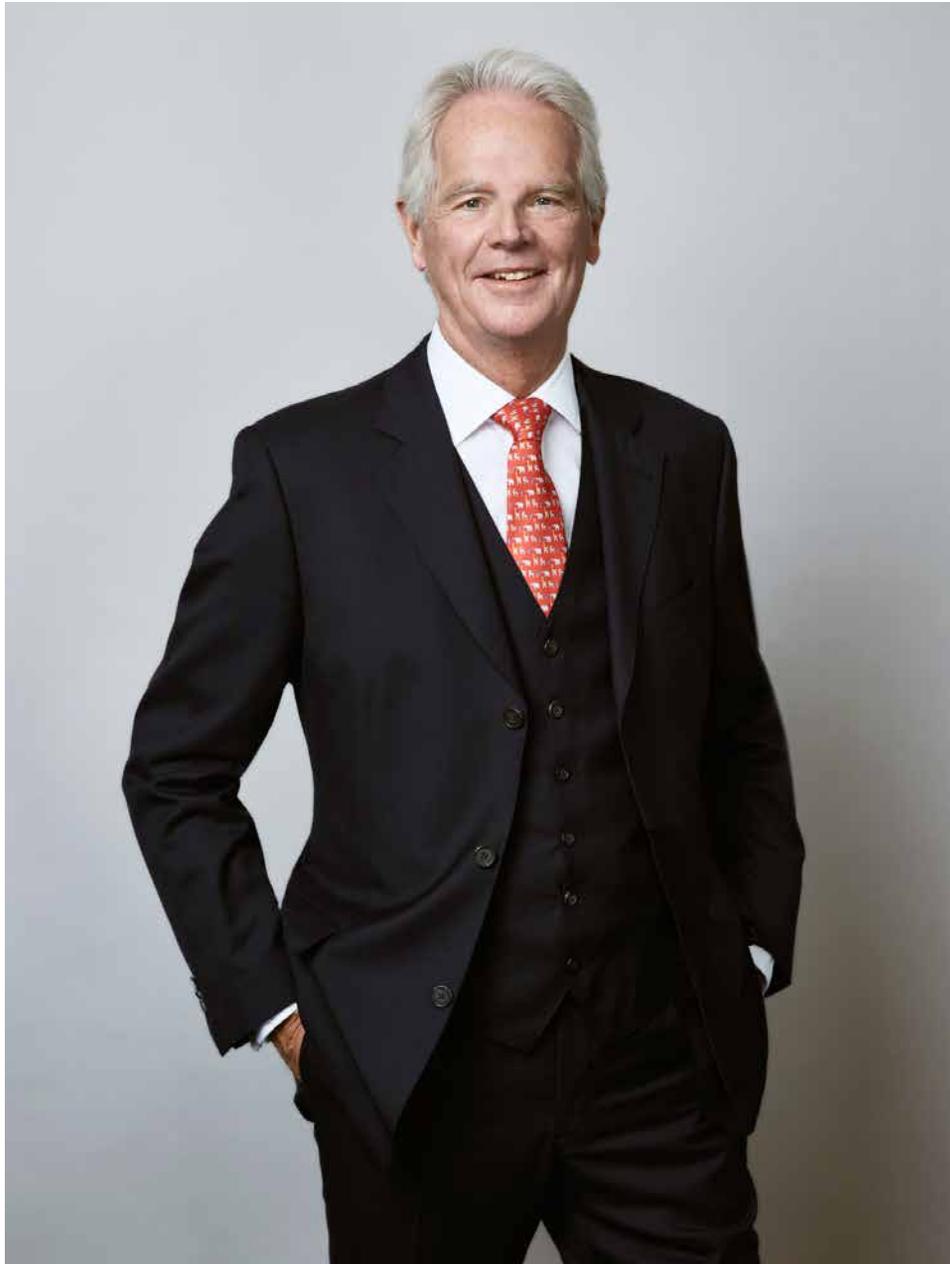
Corporate Development
Corporate Communications
Corporate Auditing
Legal
Compliance
Retirement Benefits

AUGUSTE WILLEMS

WACKER SILICONES

Sales & Distribution
Site Management
Research & Development
Corporate Security
Environment, Health, Safety
Product Stewardship
Regions: Europe, Middle East

Report of the Supervisory Board



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

Dear Shareholders,

WACKER set new records for sales and earnings in 2021. After reporting a decline in the previous year due to the coronavirus pandemic, the company grew strongly.

All four business divisions contributed to this strong organic growth.

This trend demonstrates that WACKER has respected, high-quality products and offers a diverse and unique product portfolio in order to serve customers in all key industrial sectors. We succeeded in leveraging our growth potential in our two chemical divisions. Today, around 70 percent of Group sales are generated by our chemical business – the core business from which the company originated. This strength is reflected above all in the global competitive positions of the two largest business divisions – WACKER SILICONES and WACKER POLYMERS.

WACKER POLYMERS is the global market leader in dispersions and dispersible polymer powders based on vinyl acetate-ethylene. WACKER SILICONES is the world's second-largest silicone manufacturer. WACKER BIOSOLUTIONS is active in innovative areas with excellent growth potential.

WACKER is the cost and quality leader in the polysilicon segment and also has a strong competitive position globally. In the semiconductor industry, nearly half of the computer chips produced worldwide use our hyperpure polysilicon. We are one of the very few suppliers to the solar sector that can deliver especially high-quality polysilicon for very efficient solar cells.

The Shape the Future program also made a major contribution to the good net result for the year. Even before the coronavirus pandemic took hold, we had decided to ensure that WACKER is well positioned for the future. The program

was launched at an opportune point in time and has helped us diligently pursue our cost-savings targets.

WACKER's employees played a major role in our business success in 2021. The Supervisory Board of Wacker Chemie AG thanks them for all their achievements and high levels of commitment.

We are close to resolving the issue of our high pension obligations. The low interest rates that have persisted for years have forced us to re-evaluate retirement programs. In the future, we plan to offer new employees exclusively direct commitments on a funded basis. These commitments will be secured via a contractual trust arrangement, which will use its assets solely to finance the pension obligations. The advantage is that we can much better leverage the investment opportunities offered by capital markets in order to achieve reasonable returns. In the long run, this innovative pension system will noticeably reduce the strain on the company, providing more leeway for our long-term growth strategy.

Our biggest concern for the future is German energy policy. It is a large burden – especially for an energy-intensive company of our size with a major portion of its production capacity in Germany. A secure and affordable energy supply is essential for our company. In view of the goal of carbon neutrality, we cannot currently see how high energy and electricity consumption can be satisfied with renewable energy. The chemical industry alone will consume more electricity in 2030 than Germany produces today. Added to this are high energy prices that weigh heavily on our global competitive position. We need an industrial electricity price of under 4 cents per kilowatt-hour. If we are to retain our strong manufacturing industry, German policymakers must be more active on this front than in the past.

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 2021, 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, risk management, and compliance and sustainability issues. Beyond scheduled Supervisory Board meetings, the Chairman of the Supervisory Board remained in close contact with the Executive Board, especially with the CEO, conferring on issues of strategy, business development, risk exposure, risk management and compliance, and was kept informed of current trends, the business situation, 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. Our other points of focus in the reporting year were the company's sustainability strategy and the new sustainability goals for 2030.

The Supervisory Board held four ordinary meetings in 2021, 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 for the Supervisory Board were:

- Global market challenges, particularly the high raw-material and energy costs
- Disruptions in global trade and supply chains and their effects on world markets in general, and on WACKER in particular
- The effects of the coronavirus pandemic and the countermeasures needed
- Status of regulatory approval of GlobalWafers' bid to acquire WACKER's remaining shares in Siltronic
- Various M&A projects, especially the acquisition of China's sico company
- The reorganization of the company pension systems
- Goals for 2030 and the new sustainability goals
- Financing activities
- Implementation of the German act to strengthen financial market integrity (the "FISG")

The Supervisory Board discussed the WACKER Group's plans for 2022 at its meeting of December 8, 2021. On that occasion, the Supervisory Board also dealt with medium-term corporate plans for 2022–2026. In addition, it discussed and approved the capital-expenditure budget for 2022.

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 185.

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 2021 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. It monitored the audit, especially regarding quality, as well as the independence of the auditors and the additional services they performed. 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 2021. It then awarded the auditing contract for 2021 and determined the focus of auditing.

The Executive Committee met once in 2021, discussing personnel matters in relation to the Executive Board (e.g. determining its total compensation for 2020, its performance goals for variable compensation in 2021, and its compensation system).

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, information was provided on the German act to strengthen financial market integrity (the "FISG") and the new requirements involved.

Personalized Disclosure of Attendance at Meetings

A member was excused from each of the two Supervisory Board meetings in 2021. All committee members attended their respective committee meetings in 2021. Members' attendance at meetings of the Supervisory Board and at their respective committee meetings is disclosed in personalized form in the following table:

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

Corporate Governance

Last year, the Supervisory Board again looked closely at corporate governance standards. At its meeting of December 8, 2021, 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 185.

Further information on corporate governance at WACKER can likewise be found in the Declaration on Corporate Management on page 185.

At its meeting in December 2021, the Supervisory Board conducted a self-assessment 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 185.

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 2021, the consolidated financial statements and the combined management report (as of Dec. 31, 2021), 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 May 12, 2021. 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 an unqualified audit report.

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 22, 2022, 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 3, 2022, 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, 2021 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.

The compensation report pursuant to Section 162 of the German Stock Corporation Act (AktG) underwent a separate audit. In addition to the formal, legally mandated audit, the auditors also carried out a material review of the compensation report.

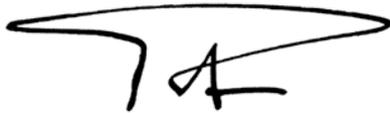
Changes in the Composition of the Supervisory and Executive Boards

There were no changes to the Supervisory Board in 2021.

As announced, WACKER's long-serving president and CEO, Dr. Rudolf Staudigl, retired at the end of last year's Annual Shareholders' Meeting on May 12, 2021. He was at the helm for 13 years, during which he made a strong contribution to the company. The Supervisory Board thanks Dr. Rudolf Staudigl for his outstanding performance and successful service to the benefit of WACKER. In December 2020, the Supervisory Board had already appointed Dr. Christian Hartel as his successor and Angela Wörl as new Executive Board member and Personnel Director. Both assumed their posts on May 12, 2021.

The Supervisory Board thanks the Executive Board and the company's employees and employee representatives for their dedication in helping make 2021 one of the most successful years in the company's history.

Munich, March 3, 2022
The Supervisory Board

A handwritten signature in black ink, consisting of a large, stylized 'P' and 'A' followed by a horizontal line.

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

WACKER Stock in 2021

In 2021, the coronavirus pandemic continued to impact markets. In the wake of global vaccine campaigns, the accommodative monetary policy pursued by central banks, and government stimulus programs, global demand recovered from the significant declines of the previous year. Strong sales and earnings growth in many sectors buoyed investor optimism. However, supply bottlenecks in nearly all business segments and logistics problems dampened growth. Despite these challenges, WACKER posted strong growth in all business divisions and raised its annual forecast several times. In the course of the year, WACKER stock also benefited from the greatly improved demand and earnings situation for solar-grade polysilicon and from strong demand at our chemical divisions.

While Germany's DAX and MDAX indices gained 15.79 percent and 14.05 percent respectively in 2021, WACKER's share price grew 12.72 percent over the same period.

At the start of the year, WACKER stock stood at €116.75 (year-end closing price on Dec. 30, 2020). Shortly after recording its first-quarter high as a result of the increased takeover bid for Siltronic shares, it reached its reporting-period

low of €106.15 on February 23. In the subsequent quarters, strong demand and rising prices in all of WACKER's divisions bolstered the share price.

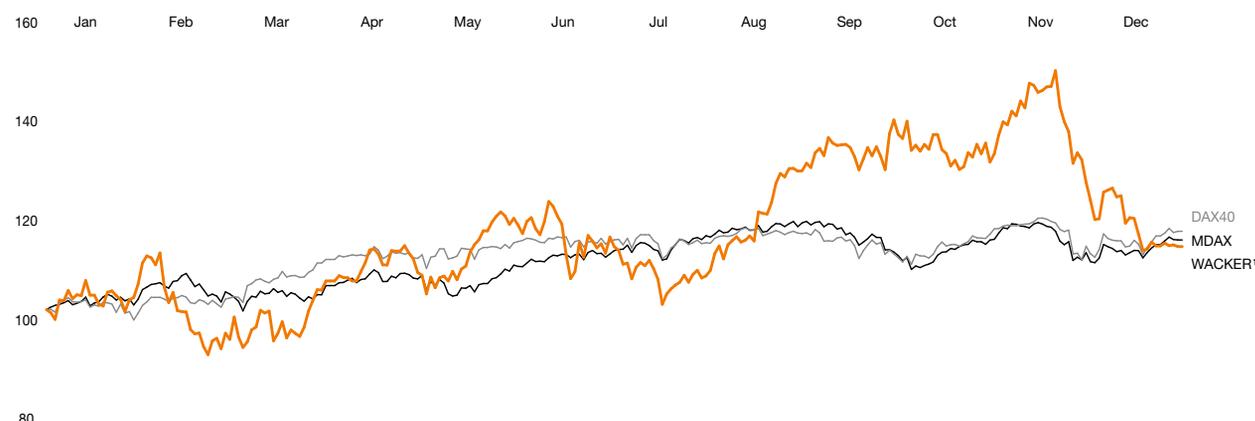
As the outlook was incrementally revised upward, WACKER stock continued to make gains during the course of the year. WACKER stock reached its year-high of €173.00 on November 22, 2021. At year end, the share price was then impacted by factors such as climbing energy and raw-material costs as well as rising Covid infection rates due to the Omicron variant. It closed 2021 at €131.60 on December 30.

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

€	
Year-high (on Nov. 22, 2021)	173.00
Year-low (on Feb. 23, 2021)	106.15
Year-end closing price (on Dec. 30, 2020)	116.75
Year-end closing price (on Dec. 30, 2021)	131.60
Performance for the year (without dividend) (%)	12.7
Year-end market capitalization (shares outstanding; prior year: 5.80) (billion)	6.54
Average daily trading volume ¹ (prior year: 22.0) (million)	27.9
Earnings per share from continuing operations (prior year: 3.81)	16.24
Dividend per share (proposal)	8.00
Dividend yield ² (%)	6.0

¹ Trading platforms (Xetra, Germany's regional exchanges, Tradegate and Quotrix)
² Dividend yield based on an average volume-weighted share price of €133.32 in 2021

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



¹ 100 = €116.75 (year-end closing price on Dec. 30, 2020)

Dividend Payment of €2.00 per Share

At the Annual Shareholders' Meeting of Wacker Chemie AG on May 12, 2021, 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 agreed at the annual shareholders' meeting was €2.00 (2019: €0.50). The dividend yield based on WACKER's average share price in 2020 was 2.9 percent (2019: 0.7 percent).

A.3 Dividend Trends

€	2020	2019	2018
Dividend	2.00	0.50	2.50
Dividend yield (%)	2.9	0.7	2.1
Net result for the year (allocable to WACKER's shareholders) (million)	189.2	-642.6	246.1
Dividend payout (million)	99.4	24.8	124.2
Distribution ratio (%) ¹	52.5	n.a.	50.5

¹ 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, which holds over 50 percent of the voting shares in Wacker Chemie AG (2020: over 50 percent). Blue Elephant Holding GmbH (Bad Wiessee, Germany) also had no voting-share changes to report in 2021, with its holding in Wacker Chemie AG remaining at over 10 percent (2020: 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, 2021)	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, 2021)

WACKER's year-end market capitalization on the basis of free float increased from €5.80 billion to €6.54 billion (total stock without treasury shares). WACKER thus had an MDAX weighting of 1.06 percent and is currently ranked 30th (free float market capitalization) among the 50 companies 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 209,000 shares, which was around 33 percent below the prior-year figure of around 315,000 shares. Average daily turnover for the shares however was €27.93 million, a gain of 27 percent year over year (2021: €22.0 million).

WACKER Communicates Closely with Capital Markets

Key elements of corporate strategy are sustainability and a focus on specialty chemicals. These priorities are reinforced through continuous and open communication with institutional investors, private investors and analysts. The latest conference and communication technologies enabled us to maintain and expand our contacts with investors despite the pandemic and associated travel restrictions. We organized two virtual Capital Market Days in 2021, both of which met with strong interest from our investors. During the course of the year, discussions were dominated by questions relating to the development of prices for solar-grade polysilicon, the development of business and the growth targets for WACKER BIOSOLUTIONS, the status of the Siltronic transaction, as well as the effects of rising raw-material and energy costs, and the price increases for our chemical products in the second half of the year.

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The number of analysts covering WACKER was 20, unchanged year over year (2020: 20). 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 €110.33 (18 estimates, January 2021). At year-end, analysts set their fair-value price target at €163.95 on average (20 estimates), roughly 49 percent higher than at the start of the year.

A.5 Banks and Investment Firms Covering and Rating WACKER

Baader Helvea	J.P. Morgan Cazenove Ltd.
Bank of America	Landesbank Baden-Württemberg
Barclays	Morgan Stanley
Berenberg	Oddo BHF
Citigroup	On Field Investment Research
Credit Suisse	SRH Alster Research
DZ Bank AG	Société Générale
Exane BNP Paribas	Stifel
Fairesearch GmbH & Co. KG	UBS Ltd.
HSBC	Warburg Research GmbH

As of the end of December 2021

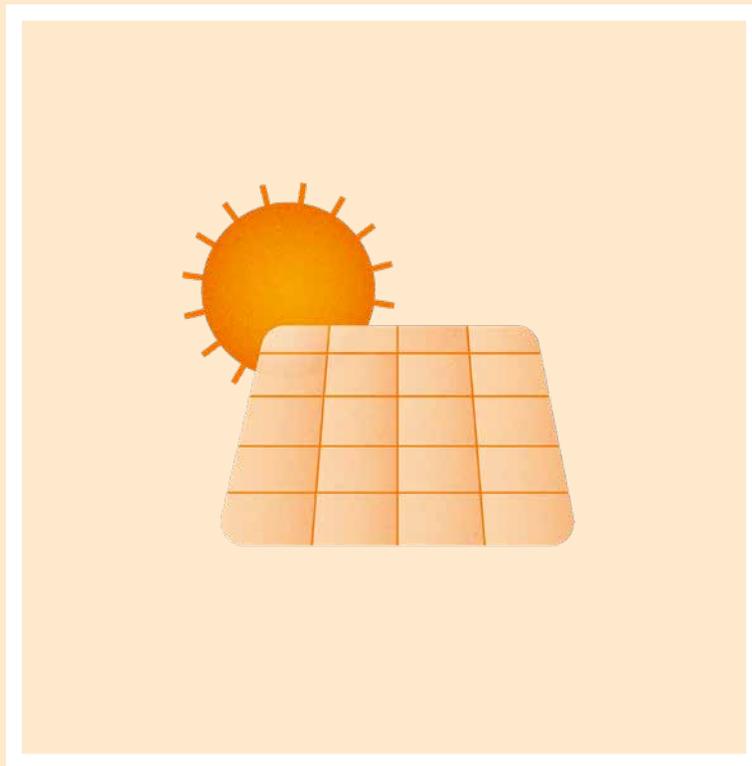
On our website, we regularly report consensus analyst expectations for the current year. Moreover, our website offers extensive information on WACKER stock. In addition to the annual report, other financial reports, a Fact Book, presentations and publications (viewable online or downloadable), our website 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.

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Combined Management Report

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The energy transition is driven by highly efficient solar cells – and they require hyperpure polysilicon. WACKER ranks among the world's leading suppliers.

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Combined Management Report

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Group Business Fundamentals

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 50

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 Base Material

Most of our products are based on inorganic raw 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.

23 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.

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 48 companies belonging to the WACKER Group. The consolidated financial statements cover 44 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.

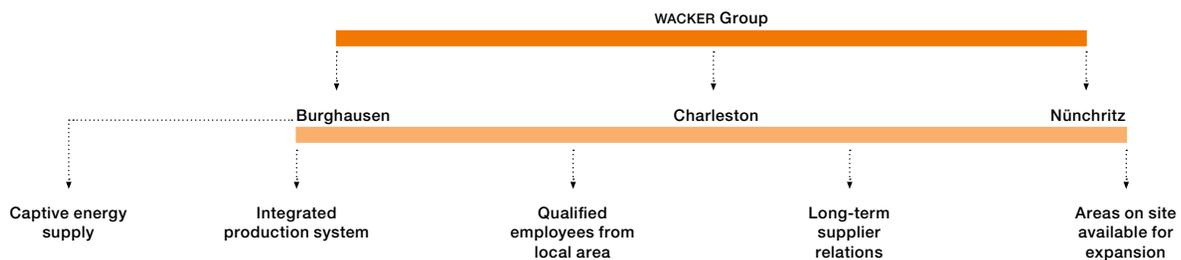
Four Business Divisions

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 52

B.1 Key Factors for Multidivisional Sites



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



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North and South America

- 1 Adrian, Michigan, USA
- 2 Allentown, Pennsylvania, USA
- 3 Ann Arbor, Michigan, USA
- 4 Calvert City, Kentucky, USA
- 5 Charleston, Tennessee, USA
- 6 Chino, California, USA
- 7 Dalton, Georgia, USA
- 8 Eddyville, Iowa, USA
- 9 North Canton, Ohio, USA
- 10 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, United Kingdom
- 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 Delhi, India
- 50 Kolkata, India
- 51 Mumbai, India
- 52 Panagarh, 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 2021

Dr. Rudolf Staudigl, WACKER's long-serving president and CEO, retired at the end of the Annual Shareholders' Meeting on May 12, 2021. He was succeeded by Dr. Christian Hartel, who took over as president and CEO at the end of the Annual Shareholders' Meeting. As of the same date, Ms. Angela Wörl was appointed to the Executive Board of Wacker Chemie AG. Her duties include that of Personnel Director.

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.

» 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

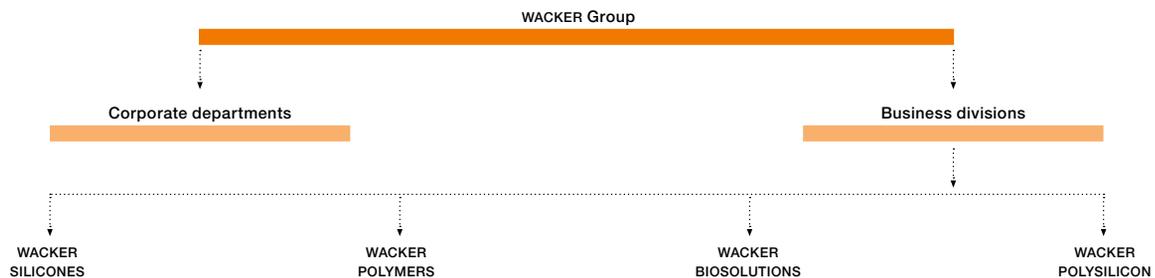
The non-financial statement that is to be submitted in accordance with Sections 315b and 315c, and 289b and 289c of the German Commercial Code (HGB) is included in the annual report in the form of a non-financial report for the Group and does not form part of the combined management report. It is also available on the internet, in the online Annual Report for 2021. In addition, it is published in Germany's Federal Gazette. This non-financial report includes a description of the Group's business model and details of environmental concerns, social issues and personnel matters, as well as information on respect for human rights, and on combating corruption and bribery. The non-financial Group report was reviewed by the auditors of the consolidated financial statements.

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

Executive Board and Supervisory Board Compensation

Executive Board compensation contains both fixed and variable components. The main features of the compensation system for the Executive Board and Supervisory Board are described in the compensation report. The compensation report is published separately and is not part of this annual report.

B.3 Group Structure



Key Products, Services and Business Processes

Overall, the range of products and services at each of our divisions remained unchanged in 2021. In several application areas, however, 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 byproducts from one stage as starting materials for making other products. The auxiliaries required for this, such as silanes, are recycled in a closed loop. Waste heat from one process is utilized in other chemical processes. Integrated production cuts energy and resource consumption, lastingly improves raw-material use and makes environmental protection an intrinsic part of the production process.

Major Sales Markets and Competitive Positions (unaudited section)

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

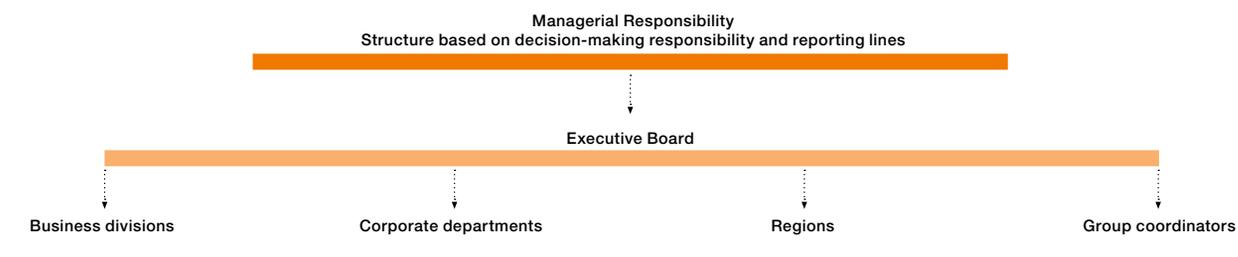
Competitive Positions of WACKER's Divisions

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.

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.

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B.4 Group Structure in Terms of Managerial Responsibility



WACKER BIOSOLUTIONS focuses on customer-specific solutions in sectors with strong growth, such as food ingredients, pharmaceutical actives and agrochemicals. We have achieved a strong market position in contract manufacturing of pharmaceutical proteins, plasmid DNA, live microbial products (LMPs) and vaccines based on bacteria, and we are expanding it. WACKER BIOSOLUTIONS is the global leader in cyclodextrins and vegetarian-grade cysteine.

WACKER POLYSILICON is one of the leading producers of hyperpure polysilicon worldwide. According to in-house analyses, the division is the global No. 1 for both polysilicon supplied to the semiconductor sector and n-type monocrystalline silicon used in highly efficient solar cells. Due to the development of the market environment in the global solar industry, the intensity of competition in this business remains high.

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

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 semiconductor applications	WACKER	Hemlock	Tokuyama
WACKER POLYSILICON solar applications	Yongxiang	Daqo	WACKER

(Table B.5 unaudited)

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 discussions with customers.

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 have a delayed effect on our cost structure. WACKER strives to keep costs at a competitive level. It does so by using multiple suppliers for most of its key raw materials and structuring its supply contracts so as to grant it the greatest possible flexibility as regards volumes, and by monitoring commodity price indexes to ensure competitive procurement prices. Close cooperation between Procurement and our business divisions helps ensure that higher raw-material costs are for the most part passed on to our customers. However, it is not always possible to achieve this goal in years when price changes are extreme. Amendments to the regulatory framework – such as to grid charges, to energy and electricity taxes, to CO₂ certificates in the European Emissions Trading Scheme (ETS) and to the German Renewable Energy Act (EEG) – can

have both direct and indirect negative effects on WACKER's energy costs. Germany's high electricity prices result in competitive disadvantages for WACKER. That is why we advocate introducing an industrial electricity price and are urging policymakers to do so. In addition, we continuously strive to improve our energy efficiency. By 2030, we want to reduce our specific energy consumption by 15 percent of what it was in 2020.

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 €50 million. In 2021, 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 the majority of our business fields, with an eye to sustainability. WACKER will publish new strategic growth targets in 2022.

WACKER made its new sustainable development goals public in mid-December 2021. They are substantially more ambitious than the previous targets. We want to halve our greenhouse gas emissions by 2030 by means of specific projects and measures. Our target is to achieve a net zero carbon footprint by 2045. Absolute greenhouse gas emissions are to be reduced to 50 percent of 2020 levels by the year 2030. It is our goal to ensure that our entire product portfolio complies with defined sustainability criteria by 2030. We also expect all key suppliers to fulfill defined sustainability standards by 2030. Emissions of upstream products used by WACKER are to be reduced by 25 percent by 2030. WACKER has set a new specific target for water withdrawal, aiming to achieve a reduction of 15 percent by 2030. At the same time, we believe that the measures for counteracting climate change will provide great opportunities for WACKER's business. Today, about two-thirds of WACKER's product portfolio provides customers with resource-efficient and climate-friendly solutions. Because demand for these products is constantly growing, WACKER expects to see a substantial contribution to sales and earnings in the next few years.

► For further information, visit www.wacker.com

Until new strategic growth targets are published, the WACKER Group's other strategic business goals remain as follows:

- Expand our production capacities, with capital expenditures below depreciation/amortization
- Generate higher growth than the average rate for the chemical industry
- 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 aim is to achieve attractive margins with our products, with a target EBITDA margin for the chemical divisions of > 16 percent.

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

With its Shape the Future program, WACKER is aiming to save a total of €250 million annually in personnel and non-personnel costs from the end of 2022.

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. 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. WACKER BIOSOLUTIONS is focused on expanding its biotechnology activities, with an emphasis on biologics and bio-ingredients, including foods and nutritional supplements. By 2030, sales at WACKER BIOSOLUTIONS are expected to grow by around €1 billion.

In polysilicon, the focus is on increasing the volume we provide to semiconductor-sector customers and on supporting solar-sector growth with particularly high-quality product for the manufacture of highly efficient monocrystalline solar cells (known as "n-type mono"). WACKER is among the leading manufacturers in both these application areas owing to its high product quality. In addition, our goal is to further cut production costs and bolster the output of existing manufacturing plants as well as to reduce energy and raw-material consumption.

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 when calculating 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 2021, 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 as well as with 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 the average value, calculated over four quarters, of working capital and 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.

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These supplementary financial performance indicators include:

- Sales: profitable growth is an important factor in increasing the company's value over the long term and one of the main drivers of a positive cash flow trend.
- Capital expenditures: in the course of our medium-term planning, we set capital-expenditure priorities and an investment budget. Capital expenditures do not include 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 are used universally for corporate decision-making.

Development of Key Financial Performance Indicators in 2021

EBITDA margin: we expected the EBITDA margin in 2021 to be slightly higher than a year earlier. The Group actually achieved an EBITDA margin of 24.8 percent.

B.6 Planned and Actual Figures

€ million	Reported for 2021	Forecast 2021	2020
EBITDA margin (%)	24.8	Slightly higher than last year	14.2
EBITDA	1,538.5	10 to 20 percent higher than last year	666.3
ROCE (%)	28.3	Substantially higher than last year	5.6
Net cash flow	760.8	Clearly positive, substantially lower than last year	697.7

EBITDA: WACKER had expected EBITDA for 2021 to surpass the year-earlier figure by 10 to 20 percent (2020: €666 million). We raised our EBITDA guidance three times during the year. At year end, EBITDA had more than doubled, climbing 130.9 percent.

B.7 ROCE and BVC

€ million	2021	2020
EBIT	1,134.3	262.8
Capital employed ¹	3,782.2	4,111.4
ROCE ² (%)	28.3	5.6
Pre-tax cost of capital (%)	10.0	-10.1
BVC ³	708.2	-169.3

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.

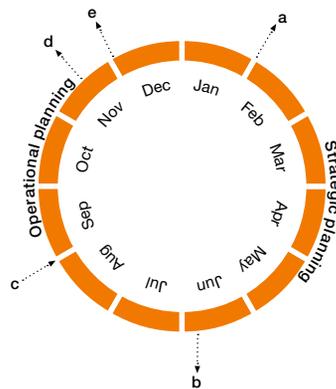
ROCE: we expected ROCE to be clearly positive and higher than a year earlier. In fact, it came in well above the cost of capital and was clearly positive. WACKER's ROCE for 2021 was 28.3 percent.

Net cash flow: our guidance was for a markedly positive figure, but much lower than the prior year. At €760.8 million, net cash flow was markedly positive and 9 percent higher than a year earlier.

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 CapEx 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 at the corporate level. In individual cases, financing is available for specific projects or regions.

» For details of the financing measures implemented in 2021, please refer to the Financial Position section on page 73.

Operational Control Instruments

We control operational processes via our integrated management system (IMS). This system defines 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):

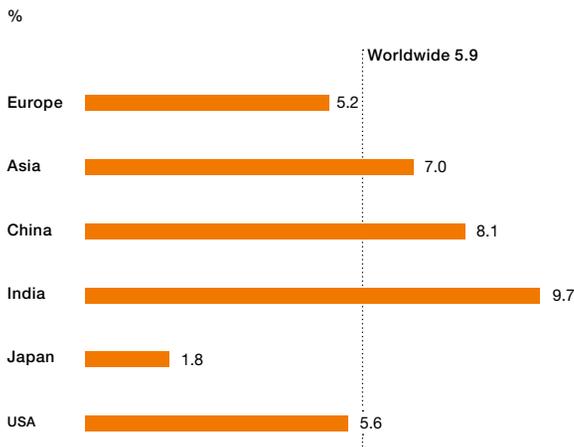
§315a (1) 1	Composition of subscribed capital:	Wacker Chemie AG's subscribed capital comprises 52,152,600 non-par value voting shares. No other share classes have been issued. The total number of shares currently includes 49,677,983 held by external shareholders and 2,474,617 held by Wacker Chemie AG 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 Annual Shareholders' Meeting on August 4, 2020, 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.

Business Report

Economic Trends

After the coronavirus pandemic led to a worldwide recession in 2020, the global economy grew again in 2021. According to data published by the International Monetary Fund (IMF), gross domestic product (GDP) grew by 5.9 percent compared with the prior year. The upswing was especially pronounced in Asia. Even if uncertainties remain, the IMF’s economists concur that the pandemic was under better control than in the previous year. Many countries have implemented monetary and fiscal policies to aid economic recovery.

B.10 GDP Trends in 2021



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

Sector-Specific Conditions

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

Chemical Industry Returns to Growth

After a negative trend in 2020, the chemical industry grew significantly in 2021. Demand for chemicals and pharmaceuticals was strong. At times, the recovery was slowed by raw-material shortages and supply-chain

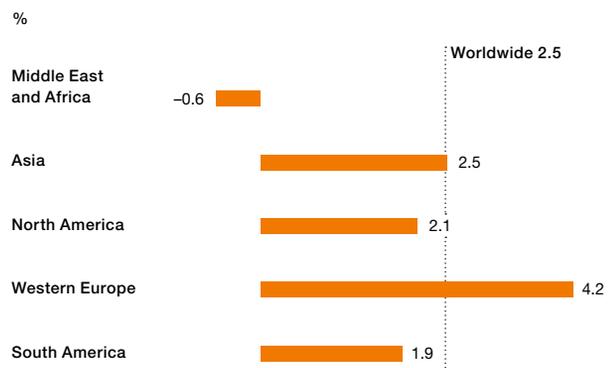
problems. According to the German Chemical Industry Association (vci), the chemical industry’s global sales (including pharmaceuticals) totaled €5 trillion in 2020, with Asia accounting for almost 60 percent. In recent years, the centers of growth have shifted increasingly toward emerging markets. Investment 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 2021.

In Germany, too, the chemical-pharmaceutical industry expanded in 2021. The sector recorded strong growth, particularly in the first half of the year. In the second half of the year, global material shortages, logistics problems and strong energy-price increases led to production declines in some chemical industry segments. Based on vci figures, sales in this industry, Germany’s third largest, nevertheless expanded by a substantial 15.5 percent to €220 billion (2020: €191 billion). Overall, production grew by 4.5 percent. Prices rose by 8.5 percent year over year, the strongest growth rate in the past ten years.

Construction Industry Recovers

After a significant drop in 2020, the construction industry recovered in 2021. According to market research institute B+L Marktdaten GmbH, construction expenditure increased in nearly all markets. Growth was driven by new building projects and construction work on existing buildings – especially energy-efficient refurbishment. Construction activity in Western Europe and Asia showed particularly strong growth. Globally, construction volume increased by 2.5 percent in 2021 to around US\$9.34 trillion (2020: US\$9.11 trillion).

B.11 Growth Rate in Construction by Region in 2021



Source: B+L Marktdaten GmbH, November 2021

Electrical and Electronics Industry Posts Increase

After stagnating in the previous year, the global electrical and electronics market grew by 9 percent to about €5.02 trillion in 2021 (2020: €4.60 trillion), according to estimates of Germany's Electrical and Electronic Manufacturers' Association (ZVEI). Volumes grew by around 7 percent in advanced economies, while the increase was even more pronounced in emerging economies, at 10 percent.

Photovoltaics Pivotal to Global Energy Supply

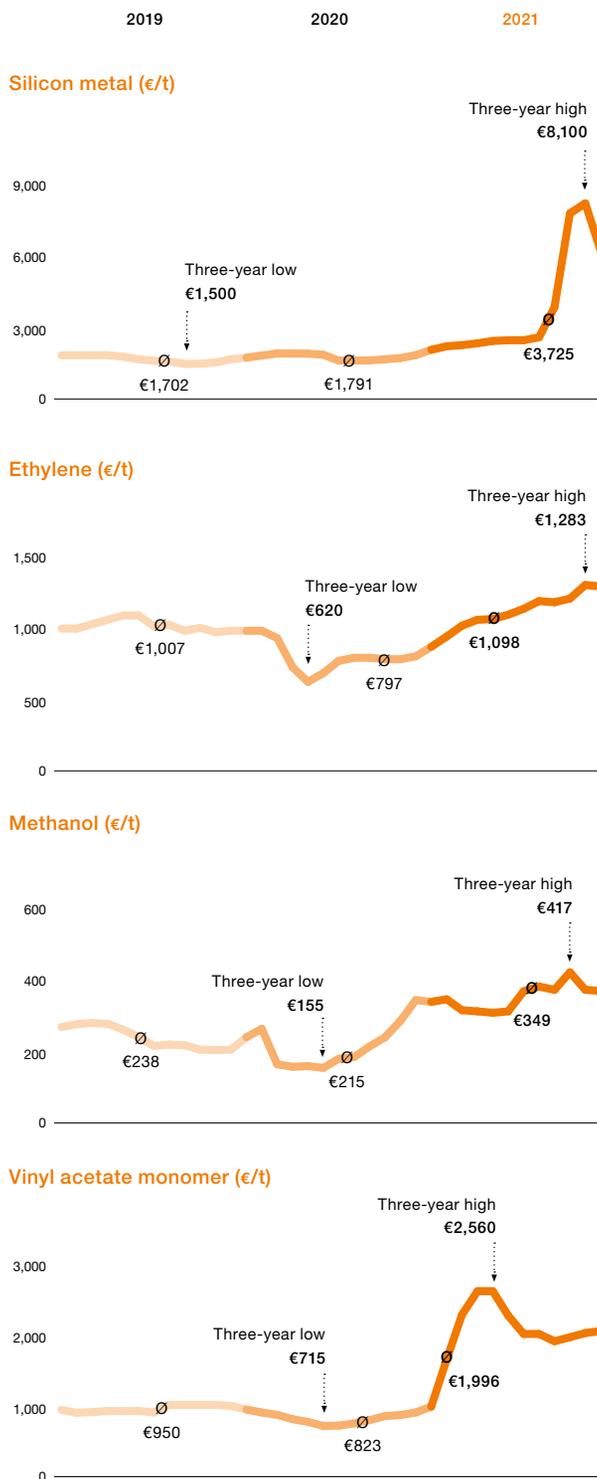
The global solar sector continued to grow in 2021, despite the negative effects of the coronavirus pandemic. Various market studies and our own market surveys show that some 170 gigawatts (GW) were newly installed worldwide (2020: about 140 GW). That was around 21 percent more than the year before. The amount of installed photovoltaic (PV) capacity worldwide exceeded 900 GW at year-end 2021. About half of the new capacity in 2021 was added in China, Japan and the USA. Key factors in the global expansion of PV installations were incentives coupled with low system costs. Photovoltaics have become competitive compared with electricity generated from conventional energy sources. In several solar auctions in sun-rich regions, the trading price for solar power was down to below US\$15 per megawatt-hour.

B.12 Installation of New PV Capacity in 2021 and 2020

	Installation of New PV Capacity (MW)		Growth in 2021
	2021	2020	%
Germany	5,300	4,900	8
Spain	3,800	3,300	15
Rest of Europe	19,900	13,000	53
USA	25,000	19,200	30
Japan	7,500	8,200	-9
China	54,900	48,200	14
India	12,000	3,200	275
Other regions	41,600	40,000	4
Total	170,000	140,000	21

Sources: Germany's Federal Network Agency, SolarPower Europe (SPE), Solar Energy Industries Association (SEIA), China National Energy Agency, market studies, and WACKER's own market surveys. (Table B.12 unaudited)

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 Substantially Higher Year over Year

Prices for raw materials rose significantly in 2021, with some reaching all-time highs far exceeding the usual range of fluctuation. The price trends were driven by strong demand in all segments. At the same time there were supply shortages, due to weather-related production outages, frequent technical disruptions and logistics difficulties. Cost increases for basic products such as oil, natural gas and coal were passed through the supply chain to derivatives. In addition, substantial scarcity premiums were charged for many raw materials.

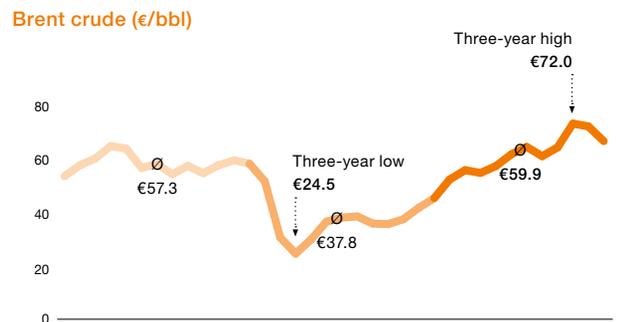
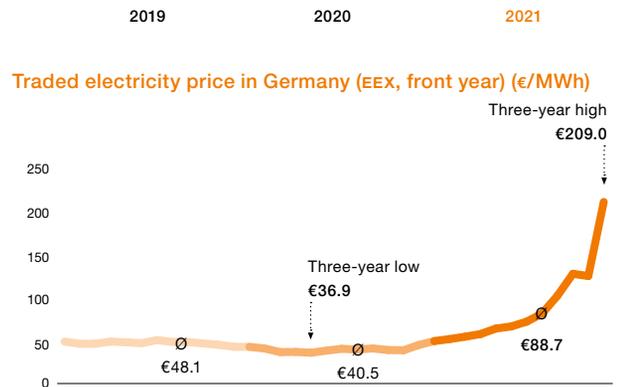
Prices for ethylene and methanol, two important raw materials for WACKER, trended largely in line with prices for fossil-based raw materials. On the other hand, prices for the key raw material vinyl acetate were severely affected by major production outages in the USA in the spring due to an ice storm. At the same time, reductions in supply in northeast Asia in the second half of the year prevented a recovery of global stocks of monomer. In addition, there were extreme price increases for metallurgical silicon in the second half of the year. Strong demand collided with production that was not at full capacity in Western industrialized countries. Prices were also driven by production cutbacks in China due to electricity shortages.

Surge in Electricity, Natural Gas and CO₂ Prices

Prices for all energy sources increased sharply worldwide in 2021. The effects of the Covid-19 pandemic, strong demand amid low supplies and unfavorable weather events pushed prices for coal and natural gas to record heights. Prices for crude oil, on the other hand, recovered to pre-crisis levels of about US\$80 per barrel.

Higher demand for coal and natural gas resulted from below-average electricity generation from wind farms in Europe as well as from low output from hydroelectric power plants in South America, Scandinavia and Europe due to droughts. At the same time, there were bottlenecks in coal logistics and production due to heavy rainfall in Asia and production cutbacks in China. As a result, coal prices increased to as much as US\$250 per metric ton. Even the increased supply of liquefied natural gas could hardly meet the strong increase in demand for natural gas in China and other countries, driving spot prices in Asia and Europe to over €100/MWh.

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



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

The increased use of fossil fuels in Europe and, above all, the EU's stricter climate goals, drove the CO₂ price to over €70 per metric ton in the course of the year. In the fourth quarter of 2021, average spot market prices for electricity in Germany were at €176 per megawatt hour, due to high gas and CO₂ prices. Electricity prices in Germany are burdened with additional taxes and surcharges, including grid fees, electricity taxes and the German EEG surcharge for renewables. Energy prices not only reached all-time highs in 2021, but were also substantially more volatile.

Overall Statement by the Executive Board on Underlying Conditions

The coronavirus pandemic had a major impact on the global economy again in 2021. Because effective vaccines were approved and administered, it was possible to avoid lengthy lockdowns. The global economy recovered, though not as strongly as economists had expected. Growth was slowed by procurement difficulties at all steps of the supply chain, logistics bottlenecks and sharply rising prices, especially for raw materials and energy.

Amid these challenging market conditions, WACKER's business in all divisions developed exceedingly well. The chemical business grew substantially year over year in terms of sales and also EBITDA. Strong volume growth and better prices were the primary reasons for this trend. Only WACKER POLYMERS posted EBITDA that was slightly below the prior-year level, due to steep increases in raw material prices. WACKER POLYSILICON reported particularly strong growth in both sales and EBITDA. Sales nearly doubled and EBITDA showed an even greater increase due to strong demand from the semiconductor industry and to markedly higher prices for our high-quality solar-grade silicon.

Sales grew significantly in all of WACKER's three main regions. Growth was particularly strong in Asia, where sales grew by 56 percent to €2.64 billion. Sales in Europe increased by 23 percent and in the Americas by 8 percent.

Key Events Affecting Business Performance

Acquisitions and Investments

In 2021, WACKER strengthened its biopharmaceutical segment with the acquisition of the us-based pDNA manufacturer Genopis. Genopis' expertise in pDNA technology enables WACKER BIOSOLUTIONS to expand its portfolio as a contract manufacturer for the pharmaceutical

industry and to build up a local presence in the us market for biopharmaceutical products. The purchase price is US\$36 million plus possible additional performance-based payments. WACKER SILICONES bolstered its silicone business in China and acquired a 60-percent stake in specialty silane manufacturer sico Performance Material Co., Ltd. Organofunctional silanes are important ingredients in high-performance adhesives and sealants, as well as in coatings and composites. The transaction is expected to be completed in the first half of 2022 after the necessary regulatory and antitrust approvals have been granted. The purchase price of the investment is €120 million.

Divestitures

The Federal Ministry for Economic Affairs and Climate Action did not issue the foreign trade clearance required for the merger of Siltronic AG with GlobalWafers Co., Ltd. by the deadline for the close of the transaction on January 31, 2022. As a result, the planned merger will not materialize. Consequently, the irrevocable undertaking signed by WACKER and GlobalWafers is void. Under this agreement, WACKER undertook to sell its 30.83-percent stake in semiconductor company Siltronic to GlobalWafers. In the financial statements for 2021, WACKER no longer recognized this investment as assets held for sale, but once again as an equity-accounted investment.

Capital Expenditures

Capital expenditures increased year over year, as planned, coming in at €343.8 million (2020: €224.4 million). The focus of our investing activities was on the chemical divisions, with several projects in different countries. 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 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

WACKER clearly exceeded its targets for 2021 (published in its 2020 Annual Report) and achieved the best business year in the history of the company. A key factor was the high demand for WACKER products in all divisions as well as a strong increase in polysilicon prices.

At the start of 2021, WACKER projected that its sales would increase by a mid-single-digit percentage. The EBITDA margin was likely to be slightly higher than a year earlier, with EBITDA about 10 to 20 percent higher. ROCE was expected to be positive and substantially higher than the year before. Net cash flow was expected to be clearly positive, though substantially lower than the previous year. Capital expenditures would reach around €350 million, with depreciation and amortization amounting to around €400 million. For 2021, WACKER aimed to post positive net financial assets.

Forecast Revised Upward after Close of First Quarter

When publishing its figures for Q1 on April 2021, WACKER revised its forecast upward. Accordingly, sales were projected to rise by a low-double-digit percentage. EBITDA was expected to be 15 to 25 percent higher than the previous year, rather than 10 to 20 percent. For all the other key financial performance indicators, the full-year forecast remained unchanged.

Based on the positive business trend during the second quarter, WACKER once again raised its forecast for full-year sales and EBITDA on June 16, 2021. Sales were expected to reach €5.5 billion. WACKER had previously projected sales growth in the low-double-digit percentage range. WACKER expected EBITDA to reach between €900 million and €1.1 billion instead of the forecast 15 to 25 percent higher than a year earlier (€666 million). In the interim report for Q2, WACKER also revised upward its projections for the EBITDA margin, ROCE and net cash flow. The EBITDA margin was now expected to be considerably higher – and no longer slightly higher – than the previous year. ROCE was also forecast to be higher – substantially higher than the cost of capital. Net cash flow was expected to be

clearly positive and higher than the prior year. WACKER had previously expected a significantly positive net cash flow, yet clearly below the previous year. The outlook for all the other key performance indicators remained unchanged.

Due to continued strong demand in all business divisions, on September 15, 2021, WACKER once again raised its annual forecast for sales and earnings. Full-year sales were expected to reach about €6 billion instead of €5.5 billion. EBITDA was now expected to range between €1.2 billion and €1.4 billion, thereby clearly exceeding the previous range of €900 million to €1.1 billion.

WACKER confirmed this forecast in its press release for Q3 published at the end of October 2021. Accordingly, net cash flow was projected to be clearly positive and higher than the previous year (previous guidance: on par with last year's level). All other performance indicators remained unchanged.

According to preliminary calculations made on January 13, 2022, for full-year 2021, WACKER exceeded its previous forecast. Sales were expected to come in at €6.2 billion and EBITDA at €1.5 billion.

WACKER Closes 2021 Surpassing Expectations

In 2021, WACKER posted sales of €6.21 billion (2020: €4.69 billion), up 32.3 percent year over year. The major factors were significantly higher volumes and improved prices. Exchange-rate effects, on the other hand, slowed sales slightly. EBITDA more than doubled and, at €1.54 billion (2020: €666.3 million), was 130.9 percent above the previous year. Significantly higher raw-material prices reduced EBITDA by about €500 million. At 24.8 percent, the EBITDA margin was also markedly higher (2020: 14.2 percent).

At €760.8 million, net cash flow was 9.0 percent higher year over year (2020: €697.7 million). Substantially higher cash inflows from operating activities were the main factor in this increase. ROCE of 28.3 percent was clearly positive and significantly higher than in the prior year.

In 2021, capital expenditures reached €343.8 million (2020: €224.4 million), well above the year-earlier figure.

At year-end, WACKER recognized net financial assets of €546.5 million (2020: net financial debt of €67.5 million).

B.15 Expenses by Cost Type

% of sales	2021	2020
Personnel costs	23.9	28.4
Raw-material costs	28.9	28.1
Energy costs	7.2	7.7
Depreciation/amortization	6.5	8.6

B.16 Comparing Actual with Forecast Performance

Key Financial Performance Indicators	Results in 2020	Forecast March 2021	Forecast April 2021	Forecast July 2021	Forecast October 2021	Results in 2021
EBITDA margin (%)	14.2	Slightly higher than last year	–	Substantially higher than last year		24.8
EBITDA (€ million)	666.3	10 to 20 percent higher than last year	15 to 25 percent higher than last year	Between €900 million and €1,1 billion	Between €1,2 billion and €1,4 billion	1,538.5
ROCE (%)	5.6	Substantially higher than last year	–	Substantially higher than the cost of capital	–	28.3
Net cash flow (€ million)	697.7	Clearly positive, substantially lower than last year	–	Clearly positive, on par with last year	Clearly positive, higher than last year	760.8
Supplementary Financial Performance Indicators						
Sales (€ million)	4,692.2	Mid – single – digit percentage increase	Low – double – digit percentage increase	Around €5,5 billion	Around €6 billion	6,207.5
Capital expenditures (€ million)	224.4	Around 350				343.8
Net financial debt (€ million)	67.5	Positive net financial assets	–	–	–	–546.5
Depreciation/amortization (€ million)	403.5	Around 400	–	–	–	404.2

Earnings

At €6.21 Billion, Group Sales 32 Percent Above Prior-Year Figure of €4.69 Billion

In 2021, the WACKER Group posted markedly higher sales than in the prior year, with higher prices and volumes across all divisions as the main growth drivers. Exchange-rate changes due to a higher us dollar year over year had a negative impact. WACKER SILICONES recorded annual sales of €2.60 billion (2020: €2.24 billion), up by 16 percent year over year due to higher volumes and prices. Sales at WACKER POLYMERS came in at €1.67 billion in 2021 (2020: €1.30 billion), up 29 percent. Sales at WACKER BIOSOLUTIONS increased by 20 percent to €296.4 million (2020: €246.1 million). Due in particular to higher prices for solar-grade polysilicon, WACKER POLYSILICON's sales almost doubled, rising 93 percent to €1.53 billion (2020: €792.2 million).

» For further information on the business divisions, please refer to the Segments section starting on page 67.

WACKER generated the majority of its sales outside of Germany. International sales came in at €5.25 billion (2020: €3.91 billion), accounting for 85 percent of the total.

» For further information, please refer to the Regions section starting on page 69.

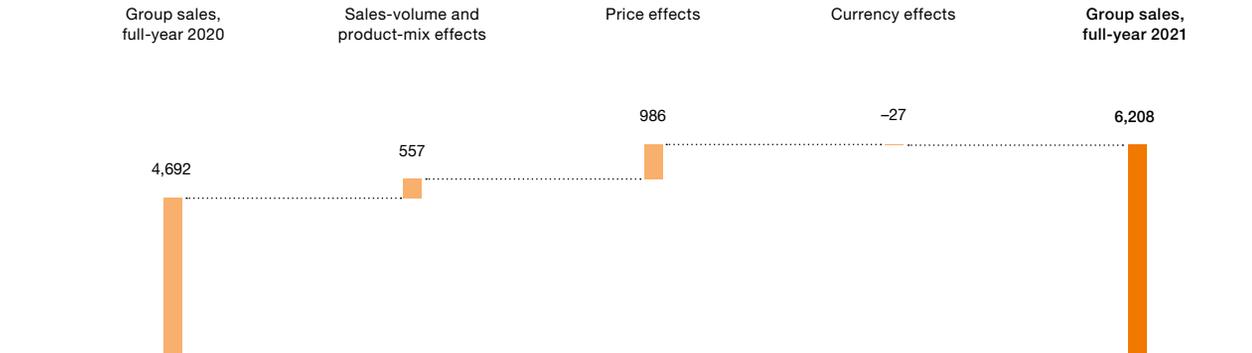
Group EBITDA at €1.54 Billion, with EBITDA Margin of 24.8 Percent

Group EBITDA grew by 131 percent year over year, coming in at €1.54 billion (2020: €666.3 million). The EBITDA margin of 24.8 percent was higher than in the previous year (2020: 14.2 percent). In addition to a substantial increase in sales, WACKER achieved reductions in current non-personnel and functional costs. That had a positive effect on EBITDA. However, high raw-material and energy costs weighed heavily on EBITDA. The Shape the Future efficiency program also included job reductions, with WACKER setting aside €48.0 million for voluntary termination benefits in the prior year. These costs had a negative impact on prior-year EBITDA.

» For further information on the business divisions, please refer to the Segments section starting on page 67.

B.17 Year-over-Year Sales Comparison

€ million



B.18 Reconciliation of EBITDA to EBIT

€ million	2021	2020	Change in %
EBITDA	1,538.5	666.3	>100
Depreciation/ amortization and (reversals of) impairments of fixed assets	-404.2	-403.5	0.2
EBIT	1,134.3	262.8	>100

EBIT Reaches €1.13 Billion

Group earnings before interest and taxes (EBIT) totaled €1.13 billion in the reporting period (2020: €262.8 million), yielding an EBIT margin of 18.3 percent (2020: 5.6 percent). In 2021, depreciation and amortization amounted to €404.2 million (2020: €403.5 million).

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

€ million	2021	2020	Change in %
EBIT	1,134.3	262.8	>100
Financial result	-40.7	-44.9	-9.4
Income before income taxes	1,093.6	217.9	>100
Income taxes	-265.8	-15.6	>100
Net result for the year	827.8	202.3	>100
Of which			
Attributable to Wacker Chemie AG shareholders	806.9	189.2	>100
Attributable to non-controlling interests	20.9	13.1	59.5
Earnings per share (€) (basic/diluted)	16.24	3.81	>100

Cost of Goods Sold Higher Year over Year

At €1.67 billion, gross profit from sales was 92 percent higher than a year earlier (2020: €869.9 million). The cost of goods sold came in at €4.54 billion (2020: €3.82 billion). The gross margin was 26.9 percent (2020: 18.5 percent). WACKER reduced the cost of goods sold by means of efficiency gains. Higher raw-material and energy costs, however, triggered a sharp increase in the cost of goods sold. The Group's cost-of-sales ratio declined markedly, from 81 percent to 73 percent.

Functional Costs Climb

Other functional costs (selling, R&D and general administrative expenses) increased by 6 percent year over year, coming in at €620.6 million (2020: €586.7 million). This

increase was mainly due to higher selling costs and administrative expenses across all corporate sectors.

Other Operating Income and Expenses

In 2021, the balance of other operating income and expenses was €19.9 million (2020: €-57.4 million). In the reporting year, €15.0 million in advance payments received under expired long-term contracts was recognized in profit or loss. In the prior year, other operating expenses included €48.9 million for termination benefits under the voluntary program. Most of these benefits were paid out in 2021. Foreign currency gains of €4.7 million (2020: €-7.8 million) improved the other operating result.

Result from Investments

Compared with the previous year, investment income rose substantially, coming in at €62.5 million (2020: €37.0 million). Siltronic was the main component of this profit from investments in joint ventures and associates.

Financial and Net Interest Result

WACKER's financial result improved year over year, coming in at €-40.7 million (2020: €-44.9 million). Interest income was €6.2 million (2020: €8.1 million) and interest expenses reached €22.5 million (2020: €22.0 million). The net interest result was €-16.3 million (2020: €-13.9 million).

The other financial result came in at €-24.4 million (2020: €-31.0 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

In 2021, WACKER reported tax expenses of €265.8 million (2020: €15.6 million). The Group's effective tax rate was 24.3 percent (2020: 7.1 percent). The prior-year effective tax rate was lower due to tax-free income and taxes for previous years.

Group Net Income

As a result of the effects mentioned, Group net income was €827.8 million, compared with €202.3 million in the previous year.

Return on Capital Employed (ROCE)

The return on capital employed (ROCE) is the ratio of earnings before interest and taxes (EBIT) to 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 28.3 percent (2020: 5.6 percent). The main reason for this increase was a marked improvement in EBIT. The amount of capital employed declined from €4.11 billion to €3.78 billion in the year under review.

Segments

WACKER SILICONES

Sales at WACKER SILICONES rose substantially in 2021, coming in at €2.60 billion (2020: €2.24 billion). This year-over-year increase of 15.8 percent was attributable to volume growth, higher selling prices and product-mix effects. Exchange-rate effects, on the other hand, slowed sales slightly. In regional terms, WACKER SILICONES' sales grew in the Americas, Asia and Europe.

EBITDA also increased significantly year over year, rising 42.6 percent to €552.9 million (2020: €387.8 million) due to higher volumes and prices. The EBITDA margin was 21.3 percent (2020: 17.3 percent).

Capital expenditures increased 47.8 percent year over year, coming in at €143.2 million (2020: €96.9 million). The funds were invested in new facilities for intermediates and downstream products. In 2021, an agreement was signed regarding the purchase of a 60-percent stake in specialty silane manufacturer sico Performance Material Co., Ltd. The transaction has not yet closed. With this planned acquisition, WACKER SILICONES is strengthening its business in high-margin specialty silicones in China. As of December 31, 2021, the division had 5,211 employees (Dec. 31, 2020: 5,076).

B.20 Key Data: WACKER SILICONES

€ million	2021	2020	2019	2018	2017
Total sales	2,599.1	2,244.0	2,453.0	2,499.6	2,200.2
EBITDA	552.9	387.8	478.5	616.6	444.9
EBITDA margin (%)	21.3	17.3	19.5	24.7	20.2
EBIT	421.0	276.8	375.3	536.7	362.2
Capital expenditures	143.2	96.9	193.6	222.7	142.8
R&D expenses	64.7	60.2	65.0	60.9	58.6
Employees (December 31, number)	5,211	5,076	5,267	5,114	4,737

WACKER POLYMERS

WACKER POLYMERS' sales were markedly higher in 2021, rising 28.9 percent to €1.67 billion (2020: €1.30 billion). Higher volumes, significantly higher prices and product-mix effects were the key growth drivers. Exchange-rate effects dampened sales growth slightly. Dispersible polymer powders performed especially well and sales of VAE dispersions also grew. WACKER POLYMERS' sales increased in Asia, Europe and the Americas.

At €252.6 million (2020: €270.5 million), EBITDA was only slightly below the 2020 level. The prior-year level was almost reached because sharp increases in raw-material prices were met with significantly higher product prices. The EBITDA margin was 15.1 percent (2020: 20.8 percent).

Capital expenditures increased significantly versus the prior year, coming in at €100.1 million (2020: €35.6 million). The main focus was on capacity expansion at the Nanjing site in China. The number of employees as of December 31, 2021, was higher at 1,595 (Dec. 31, 2020: 1,540).

B.21 Key Data: WACKER POLYMERS

€ million	2021	2020	2019	2018	2017
Total sales	1,673.6	1,298.5	1,315.1	1,282.2	1,245.1
EBITDA	252.6	270.5	194.2	147.7	205.6
EBITDA margin (%)	15.1	20.8	14.8	11.5	16.5
EBIT	198.7	229.3	153.7	108.0	168.1
Capital expenditures	100.1	35.6	62.4	71.0	48.1
R&D expenses	35.1	32.2	33.9	30.0	29.3
Employees (December 31, number)	1,595	1,540	1,630	1,600	1,539

WACKER BIOSOLUTIONS

In 2021, WACKER BIOSOLUTIONS grew its sales 20.4 percent to €296.4 million (2020: €246.1 million), chiefly due to volume growth in biologics and cyclodextrins, and to improved prices. Exchange-rate effects dampened sales growth slightly. Sales increased across all regions.

At €38.6 million, EBITDA was at the prior-year level (2020: €38.1 million). Integration costs for the new site in San Diego, California (USA) reduced EBITDA. The EBITDA margin was 13.0 percent (2020: 15.5 percent).

Capital expenditures rose 68.3 percent year over year to €33.5 million (2020: €19.9 million), with one point of focus being expansion of the production plant in Amsterdam. The takeover of Genopis Inc. in the USA broadened WACKER BIOSOLUTIONS' product portfolio to include pDNA technology and strengthened its presence in the key us biopharmaceutical market.

As of December 31, 2021, the number of employees at the division had decreased to 751 (Dec. 31, 2020: 764).

B.22 Key Data: WACKER BIOSOLUTIONS

€ million	2021	2020	2019	2018	2017
Total sales	296.4	246.1	243.0	227.0	205.9
EBITDA	38.6	38.1	31.1	23.5	37.5
EBITDA margin (%)	13.0	15.5	12.8	10.4	18.2
EBIT	20.7	21.6	14.0	9.8	26.1
Capital expenditures	33.5	19.9	13.2	17.9	15.7
R&D expenses	5.6	5.7	6.4	6.3	6.0
Employees (December 31, number)	751	764	754	709	533

WACKER POLYSILICON

WACKER POLYSILICON's sales in 2021 were almost twice as high as a year earlier, coming in at €1,529.8 million (2020: €792.2 million). This gain of 93.1 percent was primarily due to volume growth for high-quality polysilicon for the semiconductor and solar industries and markedly higher prices, especially for solar-grade polysilicon. Asia was once again the division's key sales region in 2021.

WACKER POLYSILICON's EBITDA grew even more markedly, reaching €656.7 million (2020: €4.7 million). This increase was chiefly attributable to significantly higher prices, to volume growth – especially for the semiconductor industry – and to further improvements in the cost of goods sold that were more than offset, however, by higher raw-material prices. A strong rise in raw-material and electricity prices had a negative impact on the cost of goods sold. The EBITDA margin was 42.9 percent (2020: 0.6 percent).

WACKER POLYSILICON's capital expenditures were slightly higher at €30.6 million (2020: €24.9 million). The number of employees as of December 31, 2021, totaled 2,219 (December 31, 2020: 2,180).

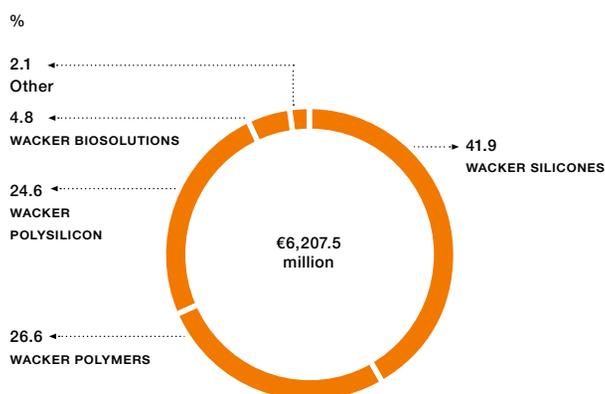
B.23 Key Data: WACKER POLYSILICON

€ million	2021	2020	2019	2018	2017
Total sales	1,529.8	792.2	780.0	823.5	1,124.0
EBITDA	656.7	4.7	56.9	72.4	290.4
EBITDA margin (%)	42.9	0.6	7.3	8.8	25.8
EBIT	528.9	-147.8	-1,012.9	-257.3	-87.6
Capital expenditures	30.6	24.9	35.3	62.2	57.6
R&D expenses	21.3	21.3	30.0	32.8	22.6
Employees (December 31, number)	2,219	2,180	2,333	2,549	2,538

Other

Sales reported under “Other” totaled €129.0 million in 2021 (2020: €128.0 million).

B.24 Divisional Shares in External Sales



“Other” EBITDA amounted to €38.5 million in the reporting year (2020: €–35.3 million). The increase is attributable to the high investment income from Siltronic. One-off costs in connection with the Shape the Future program reduced EBITDA in the previous year.

“Other” EBIT was €–34.2 million (2020: €–117.6 million).

As of December 31, 2021, “Other” had 4,630 employees (Dec. 31, 2020: 4,723). This WACKER segment includes the site management and employees of the infrastructure units in Burghausen and Nünchritz, and the Group’s corporate departments.

Regions

WACKER’s operations are highly international. Of the Group’s €6.21 billion in sales (2020: €4.69 billion), 84.5 percent came from international business (2020: 83.3 percent). Germany accounted for 15.5 percent of sales.

Asia Region Records Strong Increase in Sales

In 2021, WACKER’s sales in Asia increased strongly, rising by 56.3 percent to €2.64 billion (2020: €1.69 billion). Sales in Greater China climbed to €1.79 billion (2020: €1.02 billion). Asia accounted for 42.5 percent of Group sales (2020: 36.0 percent).

Business in Europe Also Shows Substantial Growth

WACKER’s business in Europe was also positive. Sales increased 23.0 percent to €2.37 billion (2020: €1.93 billion). The region delivered 38.2 percent of Group sales (2020: 41.1 percent).

B.25 External Sales by Customer Location

€ million	2021	2020	2019	2018	2017
Europe	2,370.7	1,927.2	2,004.0	2,096.7	1,970.4
The Americas	895.7	832.9	919.5	878.2	838.7
Asia	2,637.1	1,687.7	1,763.8	1,756.9	1,886.2
Other regions	304.0	244.4	240.3	247.0	228.9
Total sales	6,207.5	4,692.2	4,927.6	4,978.8	4,924.2

The Americas Report Moderate Sales Growth

Sales in the Americas increased 7.5 percent to €895.7 million (2020: €832.9 million) and accounted for 14.4 percent of Group sales (2020: 17.8 percent).

B.26 External Sales by Group Company Location

€ million	2021	2020	2019	2018	2017
Europe	5,091.4	3,798.2	3,977.5	4,018.3	4,029.5
The Americas	1,166.9	1,134.6	1,249.7	1,106.1	1,167.7
Asia	1,235.9	918.2	980.5	979.5	859.5
Other regions	11.3	11.2	13.1	13.0	12.1
Consolidation	–1,298.0	–1,170.0	–1,293.2	–1,138.1	–1,144.6
Total sales	6,207.5	4,692.2	4,927.6	4,978.8	4,924.2

Other Regions

Sales in the other regions of the world increased by 24.4 percent to €304.0 million (2020: €244.4 million). The share of Group sales amounted to 4.9 percent.

Net Assets

WACKER's total assets were 17.0 percent higher compared with December 31, 2020. Climbing by €1.18 billion, they amounted to €8.13 billion as of December 31, 2021 (Dec. 31, 2020: €6.95 billion). The biggest changes related to liquidity. Due to higher cash inflows from operating activities, WACKER recognized liquid assets of €1.98 billion as of December 31, 2021. On the equity and liabilities side, provisions for pensions were lower due to the transfer of €250 million to a contractual trust arrangement (CTA) to cover Wacker Chemie AG's pension obligations. Higher discount rates and increased income from the pension fund's assets also helped lower provisions for pensions. Equity rose substantially due to the Group's high net income for the year.

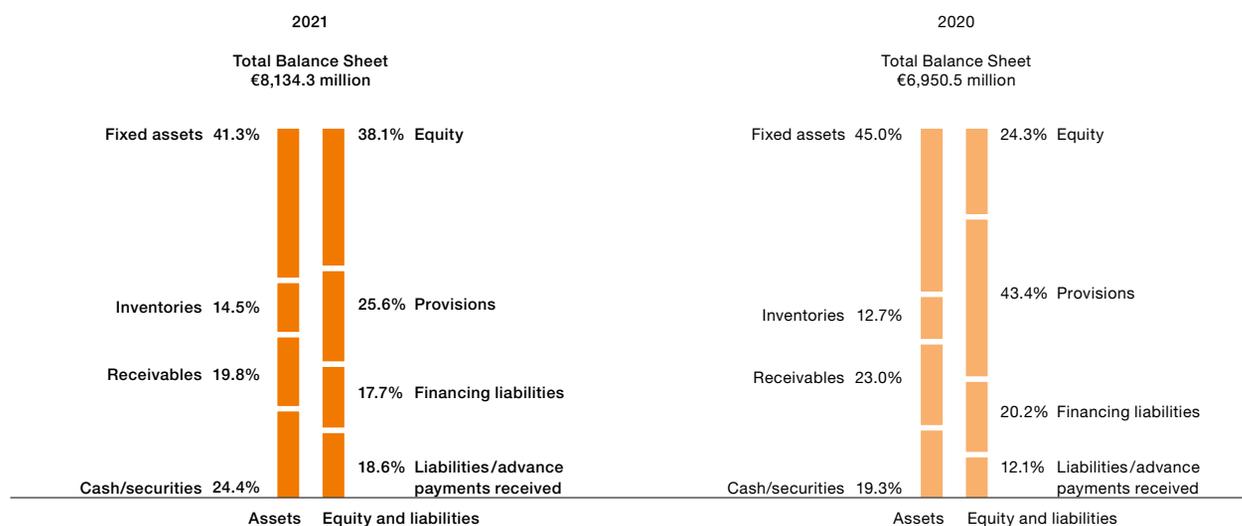
In December 2020, WACKER accepted an offer from GlobalWafers Co. Ltd., Taiwan, to transfer WACKER's remaining shares in Siltronic to GlobalWafers in the event the latter's takeover bid for the company is successful. That is why this equity-accounted investment was reclassified as assets held for sale in the prior year. The investment

has now been reclassified as equity-accounted given that, as of December 31, 2021, the sale was no longer assessed as being highly probable. This was because the sale had not taken place within the previous 12 months and the German authorities' approval was deemed difficult to obtain. This assessment proved correct when the takeover was ultimately not approved. The takeover bid expired on January 31, 2022 without having been cleared by the German authorities.

B.27 Trends: Assets

€ million	2021	2020
Intangible assets, property, plant and equipment, investment property and right-of-use assets	2,653.9	2,527.8
Investments in joint ventures and associates accounted for using the equity method	708.9	599.5
Other noncurrent assets	923.5	794.2
Noncurrent assets	4,286.3	3,921.5
Inventories	1,177.0	879.5
Trade receivables	824.8	627.0
Other current assets	1,846.2	1,522.1
Current assets	3,848.0	3,028.6
Total assets	8,134.3	6,950.5

B.28 Asset and Capital Structure



Increase in Fixed Assets Due to Capital Expenditures and Right-of-Use Assets from Leases

Relative to the end of the previous year, fixed assets (including equity-accounted investments) increased by €235.5 million to €3.36 billion (Dec. 31, 2020: €3.13 billion). Property, plant and equipment rose to €2.47 billion (Dec 31, 2020: €2.39 billion). Capital expenditures increased to €343.8 million (2020: €224.4 million). Investments were focused on WACKER SILICONES and WACKER POLYMERS, as well as on infrastructure measures. Over half of investment spending was in Germany. Current depreciation/amortization amounted to €404.2 million. Changes in exchange rates increased the carrying amount of property, plant and equipment by about €100 million. The effects stemmed from the decline in value of the euro against the us dollar in the course of the year. Right-of-use assets from leases amounted to €138.8 million as of the reporting date (Dec. 31, 2020: €110.8 million). Financing liabilities from leases totaled €153.7 million (Dec. 31, 2020: €122.8 million).

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 as assets held for sale. On December 31, 2021, the stake in Siltronic AG was reclassified once again as an equity-accounted investment, with retroactive effect as of December 31, 2020. On the reporting date, sale of the stake was no longer considered to be highly probable, given that 12 months had elapsed and the sale had not yet taken place, and the German authorities' approval was deemed difficult to obtain. This assessment proved correct when the takeover was ultimately not approved. The takeover bid expired on January 31, 2022 without having been cleared by the German authorities. As a result, the carrying amount of the equity-accounted investment in Siltronic as of December 31, 2021 was €659.0 million (Dec. 31, 2021: €550.4 million), which included the profit of €62.1 million generated by the investment.

Noncurrent Assets

Other noncurrent assets totaled €923.5 million as of December 31, 2021 (Dec. 31, 2020: €794.2 million), up 16.3 percent year over year. This increase was attributable in particular to securities totaling €318.5 million. WACKER invested a portion of its high cash inflow in us\$-denominated fixed-interest securities, which are destined for the scheduled repayment of a us-dollar loan. Deferred tax assets declined markedly, from €770.8 million to €569.7 million, reflecting higher discount rates on provisions for pensions.

Working Capital Rises 15 Percent

Current assets grew 27.1 percent year over year and amounted to €3.85 billion (Dec. 31, 2020: €3.03 billion). The increase was due mainly to the build-up of liquid assets. Inventories also grew, with an increase of 33.8 percent, rising from €879.5 million to €1.18 billion, mainly due to higher raw-material prices year over year.

As of December 31, 2021, working capital was up 14.6 percent versus the 2020 reporting date, and amounted to €1.24 billion (Dec. 31, 2020: €1.08 billion). The chief drivers of this growth were an increase of 33.8 percent in inventories and the rise of 31.6 percent in trade receivables to €824.8 million (Dec. 31, 2020: €627.0 million). Trade payables rose 79.6 percent, also due to higher raw-material prices.

B.29 Working Capital

€ million	2021	2020	Change in %
Trade receivables	824.8	627.0	31.5
Inventories	1,177.0	879.5	33.8
Trade payables	-761.9	-424.2	79.6
Working capital	1,239.9	1,082.3	14.6

Liquidity Increases to €1.98 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 €738.2 million at the end of Q4 2021 (Dec. 31, 2020: €712.0 million) after WACKER invested liquid assets in funds and fixed-term deposits. Cash and cash equivalents reached €926.6 million as of December 31, 2021 (Dec. 31, 2020: €626.0 million). Overall, liquid assets (current and

noncurrent securities, cash and cash equivalents) thus grew to €1.98 billion year over year (Dec. 31, 2020: €1.34 billion), an increase of 48.2 percent. The main reasons for this growth were very good operating performance and advance payments received for future polysilicon deliveries. In Q4 2021, WACKER paid €250 million to a newly established contractual trust arrangement (CTA). Wacker Chemie AG's dividend payment of €99.4 million in Q2 2021 (2020: €24.8 million) also reduced liquid assets.

B.30 Trends: Equity and Liabilities

€ million	2021	2020
Equity	3,100.4	1,691.8
Noncurrent provisions	2,061.1	2,947.2
Financing liabilities	1,064.0	1,322.7
Other noncurrent liabilities	196.9	162.5
Of which noncurrent advance payments	56.3	71.1
Noncurrent liabilities	3,322.0	4,432.4
Financing liabilities	372.8	82.8
Trade payables	761.9	424.2
Other current provisions and liabilities	577.2	319.3
Current liabilities	1,711.9	826.3
Liabilities	5,033.9	5,258.7
Total equity and liabilities	8,134.3	6,950.5
Capital employed	3,782.2	4,111.4

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Equity Ratio at 38.1 Percent

Group equity increased substantially year over year and amounted to €3.10 billion as of December 31, 2021 (Dec. 31, 2020: €1.69 billion). The corresponding equity ratio was 38.1 percent (Dec. 31, 2020: 24.3 percent). The net profit for the year increased retained earnings by €827.8 million (Dec. 31, 2020: €202.3 million). The dividend payment of Wacker Chemie AG reduced retained earnings by €99.4 million. The change in provisions for pensions, which was recognized in other comprehensive income, increased other equity items by €533.9 million. Currency translation impacted equity in the amount of €174.3 million. The share of equity attributable to non-controlling interests amounted to €81.9 million as of the reporting date (Dec. 31, 2020: €66.6 million).

Liabilities Lower Due to Decline in Provisions for Pensions

WACKER's liabilities declined by €224.8 million compared with the previous year, down 4.3 percent to €5.03 billion. Provisions for pensions decreased by €900.0 million year over year and totaled €1.81 billion. The decline was due to higher discount rates and to the payment of €250 million to the CTA to cover Wacker Chemie AG's pension obligations. The discount rates were 1.24 percent in Germany (Dec. 31, 2020: 0.70 percent) and 2.66 percent in the USA (Dec. 31, 2020: 2.29 percent). Other noncurrent provisions mainly comprised anniversary provisions, and provisions for environmental protection and phased early retirement.

Other noncurrent liabilities came to €196.9 million (Dec. 31, 2020: €162.5 million). They mainly comprised contract liabilities in the shape of advance payments received and noncurrent income tax liabilities. Trade payables rose markedly, to €761.9 million (Dec. 31, 2020: €424.2 million). The main causes of this growth were higher raw-material and energy costs and extended payment terms. Other current provisions and liabilities climbed 80.8 percent to €577.2 million (Dec. 31, 2020: €319.3 million), reflecting the rise in personnel liabilities and personnel provisions. Performance-based compensation for 2021 was much higher than a year earlier and increased liabilities. Current advance payments received amounted to €155.5 million as of the reporting date (Dec. 31, 2020: €46.7 million).

Financing Liabilities Almost Unchanged

Current and noncurrent financing liabilities rose €31.3 million to €1.44 billion as of the reporting date (Dec. 31, 2020: €1.41 billion). Liabilities of some €250 million falling due in 2022 were reclassified as current. Exchange-rate effects likewise led to a slight decrease in financial liabilities. 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, 2021, WACKER recognized lease liabilities of €153.7 million (Dec. 31, 2020: €122.8 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 and 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.

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.

New Financing Measures in 2021

WACKER took out several long-term loans in the prior year to secure financial planning for the long term. The loans have maturities of four to six years. Some of the loans were drawn down in 2021, while some will be disbursed in 2022. In December 2021, an expired syndicated loan in the amount of €200 million was replaced by a new syndicated loan agreement for the same amount. The new loan serves as a line of credit and matures in 2026.

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

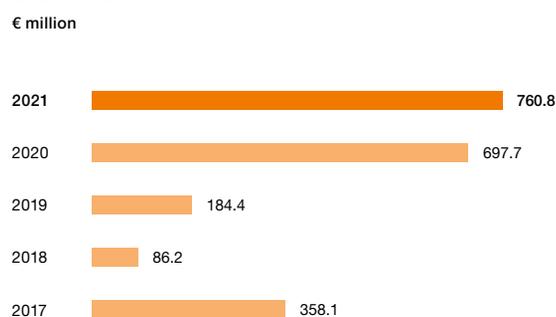
WACKER's long-term objective is to finance its capital expenditures primarily from its own cash flow. This target was clearly achieved in 2021. Net cash flow totaled €760.8 million in 2021 (2020: €697.7 million).

B.31 Net Cash Flow

€ million	2021	2020	Change in %
Cash flow from operating activities (gross cash flow)	1,064.4	873.7	21.8
Cash flow from long-term investing activities before securities	-303.6	-176.0	72.5
Net cash flow	760.8	697.7	9.0

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



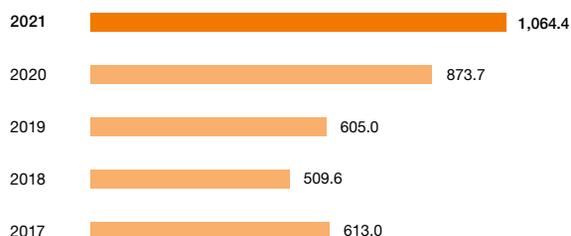
Gross Cash Flow

In 2021, cash flow from operating activities (gross cash flow) totaled €1.06 billion (2020: €873.7 million). Net income for the year amounting to €827.8 million (2020: €202.3 million) significantly improved gross cash flow year over year. The change in working capital was €-53.7 million (2020: €100.0 million). Cash flow from operating activities was increased by depreciation and amortization of €404.2 million

(2020: €403.5 million) included in net income for the period. The payment of €250 million to pension trust assets and the €44.6 million in termination benefits paid in 2021 under the Shape the Future efficiency program both had a negative impact on gross cash flow.

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

€ million

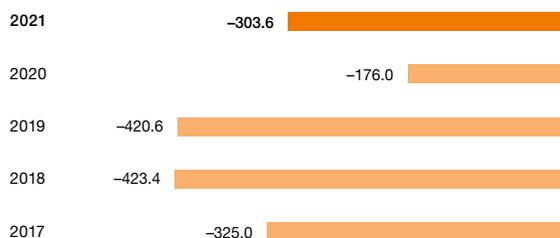


Cash Flow from Long-Term Investing Activities

The Group's investment projects are the key factors influencing cash flow from long-term investing activities. In 2021, cash payments of €-321.3 million for capital expenditures were higher than the prior-year figure (2020: €-226.5 million). More than half of the capital expenditures were made in Germany. WACKER received a repayment of €46.8 million toward redemption of a strategic loan made to equity-accounted Dow Siloxane (Zhangjiagang) Co., Ltd. Cash flow from long-term investing activities amounted to €-303.6 million in 2021 (2020: €-176.0 million).

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

€ million



Cash Flow from Financing Activities

Cash flow from financing activities totaled €-153.9 million in the reporting year (2020: €117.1 million). It reflects the net repayment of external financing liabilities in the amount of €-12.1 million (2020: €177.1 million). Wacker Chemie AG's dividend payment of €-99.4 million led to a cash outflow in the second quarter. Repayments of lease liabilities amounted to €-31.4 million (2020: €-31.8 million).

Cash and Cash Equivalents

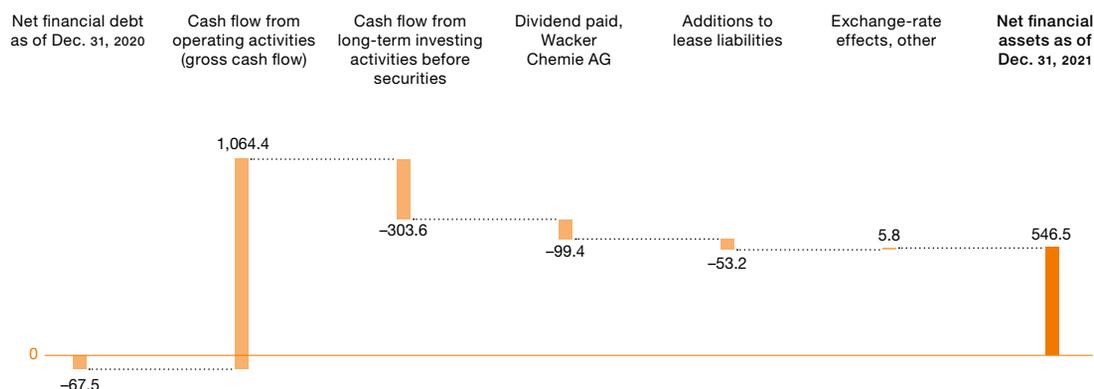
Cash and cash equivalents increased to €926.6 million (2020: €626.0 million). Liquidity from cash and from current and noncurrent securities rose markedly, from €1.34 billion to €1.98 billion.

WACKER Reports Net Financial Assets

WACKER defines net financial debt – or net financial assets, as the case may be – as the balance of gross financial debt (current and noncurrent financing liabilities) and

B.35 Net Financial Assets/Net Financial Debt

€ million



existing noncurrent and current liquidity, consisting of securities, cash and cash equivalents. Net financial assets totaled €546.5 million as of December 31, 2021 (Dec. 31, 2020: net financial debt of €67.5 million).

The net financial assets were primarily attributable to cash inflows from operating activities.

Aside from the financing liabilities disclosed in the report on net assets, WACKER has at its disposal an adequate amount (more than €900 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 2021, Wacker Chemie AG posted a retained profit of €1,734.9 million under German Commercial Code accounting rules. The Executive and Supervisory Boards will propose a dividend of €8.00 per share at the Annual Shareholders' Meeting. Based on the number of shares entitled to dividends as of December 31, 2021, the total cash dividend corresponds to a payout of €397.4 million. Calculated in relation to WACKER's average share price in 2021, the dividend yield is 6.0 percent.

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

WACKER set new records for sales, earnings and net cash flow in 2021. All of our business divisions contributed to last year's strong sales growth. Demand remained robust throughout the year in most of our customer sectors. We also achieved substantially higher prices for our products than in 2020, helping us compensate for the strong increase in some raw-material prices.

Sales at all our chemical divisions rose at double-digit rates. Polysilicon activities performed particularly well. WACKER POLYSILICON almost doubled its sales in 2021 versus a year earlier.

EBITDA differed from division to division in 2021, growing strongly year over year at WACKER POLYSILICON and WACKER SILICONES. WACKER BIOSOLUTIONS, too, recorded a slight increase. On the other hand, WACKER POLYMERS' EBITDA declined somewhat due to markedly higher raw-material costs. Cost savings from the company's ongoing efficiency program strengthened EBITDA at every division. ROCE improved significantly year over year.

Personnel expenses rose in absolute terms, but decreased as a percentage of sales. Viewed in relation to sales, the cost of goods sold declined. In absolute terms, however, it was significantly higher due to increased raw-material and energy costs. Depreciation and amortization were on par with the previous year and thus considerably lower in relation to sales.

At €3.10 billion, Group equity was up €1,408.6 million year over year, chiefly due to higher net income for the year and to the adjustment in provisions for pensions, which was recognized in other comprehensive income. The equity ratio increased from 24.3 percent to 38.1 percent. The Group's net financial debt decreased significantly, with WACKER recognizing net financial assets as of the end of 2021. High cash inflows from operating activities were the main reason for this. Net financial assets totaled €-546.5 million as of December 31, 2021. Capital expenditures increased significantly year over year. At €343.8 million, however, they remained below depreciation/amortization. Net cash flow was higher year over year, at €760.8 million.

Despite the ongoing restrictions associated with the pandemic, WACKER's figures for 2021 were very good. The strong demand for our products and solutions underscores the outstanding growth potential of our business portfolio.

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 be a technology leader and to operate sustainably.
- 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 – was 2.6 percent, which was less than the previous year (2020: 3.3 percent).

B.36 R&D Expenses

€ million	2021	2020	2019	2018	2017
Research and development expenses	164.2	156.6	173.3	164.6	153.1

In 2021, we filed 77 patent applications (2020: 91). As part of the Shape the Future program, we have been working with operations to slim down our patent portfolio, which now contains about 3,600 active patents worldwide, with about 1,200 patent applications currently pending. We license only a small amount of know-how from third parties. In our research partnerships with universities, our policy is to ensure that the results are made available to us free of charge or by transfer of rights of use.

We have invested in new laboratories and equipment, as well as in pilot facilities and pilot reactor technologies. We have continued to automate and digitalize the work processes at our international R&D competence centers. At the Nünchritz site, we built a pilot facility featuring a new silicone resin production technology.

B.37 Investments in R&D Facilities

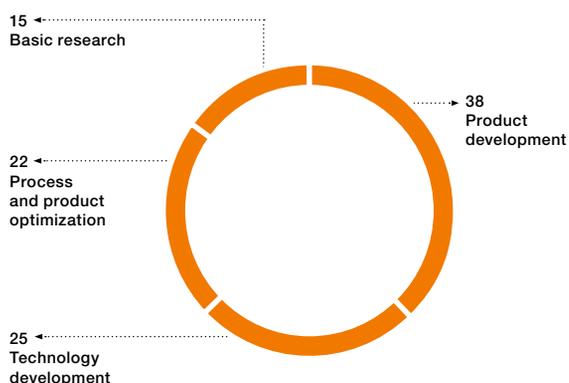
€ million



The development of products and production methods accounted for a large share of R&D costs. WACKER is active in many highly promising fields, in particular energy, electronics, automotive, medicine, consumer care, biotechnology and construction applications. We are devoting particular attention to efficient energy utilization, energy storage and renewable energy generation.

B.38 Breakdown of R&D Expenditures

%



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 different divisions 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, lightweight construction, CO₂ recycling, artificial intelligence and biotechnology. The following are a few sample projects:

— CAESAR is a research project funded by the Federal Ministry for Economic Affairs and Energy in its 7th Energy Research Program. We are working with partners in this joint project to develop high-energy lithium-ion cells for mobile industrial applications. The research is based on high-capacity anode and cathode materials along the entire supply chain.

» https://www.enargus.de/pub/bscw.cgi/?op=enargus_eps2&q=caesar&v=10&id=3678051

— We are working on silicon dioxide materials to replace graphite in anodes of lithium-ion batteries – and thus increase anode capacity. To that end, we are involved in the LeMO₂n project (Learning Multi-Scale Optimization for SiO₂-Based Anode Materials). This project involves data-driven modeling and machine learning using artificial intelligence as well as high-throughput characterization as a method for combinatorial materials research. Funding is provided by the Bavarian State Ministry for Economic Affairs, Regional Development and Energy under its joint research program for materials (“Materialien und Werkstoffe”).

» <https://www.fhws.de/forschung/institute/idee/idee-projekte/lemo2n/>

— In the BioBall SynBioTech project, we are developing processes to convert biogenic carbon dioxide (CO₂) into methanol. Methanol can be converted into biomass through fermentation for use as animal feed or as a precursor for other chemicals. The project is funded by the Federal Ministry of Education and Research as one of the Bioeconomy Innovation Spaces established under the ministry’s Bioeconomy 2030 National Research Strategy.

» https://biooekonomie-metropolregion.de/bioball/de/innovations_de/synbiotech_de.html

— We are investigating the use of augmented and virtual reality (AR and VR) with partners in the MEvoDiP project (Human-Centered Creation and Evolution of Digital Twins in Process Engineering). The research is focused on the interaction with digital twins that replicate products or process steps, for example. It

is funded by the Bavarian State Ministry for Economic Affairs, Regional Development and Energy under its Information and Communications Technology research and development program.

» MEvoDiP <https://www.in.tum.de/index.php?id=5533>

— We have submitted applications for European and German funding for the production of green hydrogen and renewable methanol at our Burghausen site. The RHYME (Renewable Hydrogen and Methanol) Bavaria project envisages WACKER building a 20-megawatt electrolysis plant to produce hydrogen from water using renewable electricity. The project also includes a synthesis plant for processing hydrogen into renewable methanol, using carbon dioxide from existing production processes. Hydrogen and methanol are both key starting materials for the chemical industry. At WACKER, methanol is used in silicone production, for example. Compared with existing production methods using fossil-based methanol, the new processes could significantly cut CO₂ emissions. As part of the RHYME Bavaria project, we want to engage in climate-friendly technologies that will replace fossil raw materials in our processes and products. That can be achieved only with public-sector funding, however, as renewable raw materials are not yet able to compete on price with fossil products.

» <https://www.wacker.com/cms/en-us/about-wacker/research-and-development/rhyme-bavaria/detail.html>

— As an associate, unfunded partner in the research project titled Trans4In – Energy Transformation in ChemDelta Bavaria, we are collaborating with the Research Institute for Energy in Munich (FfE) and with other ChemDelta Bavaria companies and infrastructure operators to develop a road map to climate neutrality. This collaboration is funded by the Federal Ministry of Education and Research under the TransHyDe lead project.

» <https://www.ffe.de/projekte/trans4in-energietransformation-im-chemiedreieck-bayern>

Research and Development at Two Levels

WACKER conducts R&D at two levels: centrally at our Corporate Research & Development department (Corporate R&D) 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, technology position and contribution to sustainability.

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 2021, the Group had 762 R&D staff (2020: 752), accounting for 5.3 percent of the workforce (2020: 5.3 percent). Of these, 594 were employed at R&D units in Germany and 168 abroad.

Alexander Wacker Innovation Award

The Alexander Wacker Innovation Award, a €10,000 prize conferred since 2006 for outstanding performance in product innovation, process innovation and basic research, is presented at the annual WACKER Innovation Days research symposium. The German-Chinese team honored with the 2021 award improved the process for vinyl acetate-ethylene (VAE) polymer dispersions in terms of production throughput and energy consumption. The researchers optimized heat dissipation and thus markedly improved the sustainability of the VAE production process.

Selected Corporate R&D Research Topics

Our work in Corporate R&D 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.

One key research area centers on biotechnology, where we are increasingly automating and digitalizing our work. In the reporting period, we developed medium- and high-throughput systems for screening strain libraries.

In fermentation, we collect extensive process data for computer-assisted simulation and optimization of production methods. In microbiology, we have prioritized two areas. One of these is to develop and improve technologies for the production of proteins and nucleic acids (DNA, RNA) for the pharmaceutical sector. The other main research area involves work on production systems and technological synergies for new food ingredients.

Our basic research remains heavily focused on the chemistry of low-valence silicon and germanium for use in industrial applications (such as catalysis and synthesis). In this field, we are working closely with the WACKER Institute of Silicon Chemistry at the TUM.

Selected Divisional Research Projects

Our customers are increasingly focused on sustainability and substance degradability. Our researchers in Burghausen and Munich are working on silicone systems in combination with sustainable materials and degradable organic building blocks. At the Shanghai technical center, WACKER SILICONES is researching thermal interface filler materials for use especially in the automotive and electronics industries. One point of focus at the Burghausen technical center is 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 has developed printable elastic electrode materials for sensor applications. At the Anyang technical center in South Korea, we are conducting research on resin-filled, optically clear silicone systems for optical bonding to further enhance the functionality of display screens. We are continuing our work on UV-activated silicones, which are more energy-efficient than thermal curing. At our research site in Ann Arbor, Michigan (USA), we are developing silicone systems for the targeted release of active ingredients in wound care.

We are using molecule simulations and big-data analyses to digitalize our research activities. Our Innovation Heroes initiative seeks to foster a culture of innovation at WACKER SILICONES. We acknowledge the best ideas and developments with awards and pursue them in our research activities. We employ innovation methods like design thinking in interdisciplinary High Innovation Impact ("HIT") teams to identify customer needs and develop targeted solutions to meet them. In the reporting year, the HIT teams concentrated on hygiene and the pandemic.

Research at WACKER POLYMERS is 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 creating 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 are forging 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>

WACKER BIOSOLUTIONS is strengthening its biotech expertise for the biopharmaceuticals and food markets. During the reporting period, we continued to develop our ESETEC® protein production platform and optimized the supply of pharmaceutical proteins – which are difficult to produce – across all development stages. We are developing efficient production processes for plasmid DNA (pDNA). The team at our new site in San Diego, California (USA), is experienced in the manufacture of pDNA pursuant to the Good Manufacturing Practice (GMP) quality guidelines. At the Amsterdam site, we are able to produce mRNA-based actives for pharmaceutical customers in line with GMP. We have further optimized our LIBATEC® technology for the production of live bacteria for use as pharmaceutical active ingredients.

In the food segment, we are developing fermentation methods for the manufacture of high-quality bio-based ingredients for the food industry. In the market for cell culture meat (“clean meat”), we see ourselves as a supplier of high-quality medium components, and we are also

working with partners on production technologies. We are developing applications for our versatile cyclodextrins in the food, agriculture and pharmaceutical industries.

In the reporting year, WACKER POLYSILICON launched its Quality LeaP (Quality Leadership in Polysilicon) project, seeking to reinforce its leadership in quality amid increasingly stringent customer requirements regarding purity. In the solar modules segment, huge technological progress is being made at every stage of the supply chain, and this trend is reflected in continually rising cell efficiencies. Maximum cell efficiencies are attainable only with hyperpure polycrystalline silicon of the grade produced by WACKER POLYSILICON. 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 to 25 percent. High-performance segments like these require WACKER-quality polysilicon. We are a member of the Ultra Low-Carbon Solar Alliance (ULCSA), which advocates for the use of photovoltaic components that reduce the carbon footprint of solar systems.

» <https://ultralowcarbonsolar.org/>

Employees

WACKER’s workforce increased by 0.9 percent in 2021. 69.5 percent of WACKER’s employees work in Germany and 30.5 percent at international sites.

In 2020, as part of WACKER’s Shape the Future efficiency program, the company had reached an agreement with employee representatives on the framework for the planned job reductions. The reduction in Germany will 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 (48.5 percent), roughly one-eighth (12.1 percent) of whom are women.

B.39 Number of Employees as of December 31

€ million	2021	2020	2019	2018	2017
Germany	10,006	10,096	10,356	10,291	9,984
International	4,400	4,187	4,302	4,251	3,827
Group	14,406	14,283	14,658	14,542	13,811

B.40 Personnel Expenses

€ million	2021	2020	2019	2018	2017
Personnel expenses	1,475.1	1,329.4	1,253.8	1,231.5	1,198.0

At €1,475.1 million, personnel expenses were higher versus the previous year (2020: €1,329.4 million). They included outlays for social benefits and the company pension plan totaling €319.9 million (2020: €288.7 million).

Since July 2021, employees on standard pay scales at Wacker Chemie AG's German sites have had access to Care-Flex Chemie, the supplementary long-term care insurance jointly established by the German Federation of Chemical Employers' Associations (BAVC) and Industriegewerkschaft Bergbau, Chemie, Energie (IGBCE), the union representing workers in the German mining, chemicals and energy industries.

WACKER considers a company pension to be an important component of compensation. It is provided at most of our German and international sites. In Germany, WACKER provides 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 receive an additional supplementary pension for that portion of their salary that exceeds the pension insurance contribution assessment ceiling. The fund has around 18,200 members and provides pension payments to some 9,100 retirees. The average pension paid in the reporting year was €691 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.

WACKER aims to reform the company pension plan for future pension entitlements and make it future-proof,

attractive and more flexible. At the same time, this should relieve the burden on the company caused by low interest rates. To this end, WACKER is conducting negotiations with employee representatives. In the reporting year, corporate management and employee representatives established basic points of agreement whereby existing plans and vested benefits are preserved for current employees. The lifelong pension model is to continue to exist for this group of employees, accompanied by new payout options aligned with a person's particular life situation. For new employees, the company pension is designed to provide an attractive direct retirement benefit commitment on a funded basis accompanied by high risk cover for emergencies. Employees in existing plans should also have the option of transferring to this new plan. In 2021, a contribution of €250 million was made to a trust company to partially finance WACKER's pension obligations from direct commitments. This arrangement concerns those company pension benefits that go beyond the basic pension provided by Pensionskasse der Wacker Chemie VVaG.

Procurement and Logistics (unaudited section)

In 2021, WACKER's procurement volume increased to €3.9 billion (2020: €2.8 billion). The most important reasons for this were sharp increases in raw-material and energy costs, but also in volumes. At 62 percent, the procurement rate – raw materials, services and other materials as a percentage of sales – was at approximately the prior-year level (2020: 61 percent). At around 10,000, the number of suppliers was about 10 percent lower than the previous year due to ongoing consolidation.

The Group spent €2.5 billion to procure energy, raw materials and packaging, almost 40 percent more than the prior year (2020: €1.8 billion). Most of this increase stemmed from higher raw-material prices, with the rest being due to increased volumes.

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

€ million	2021	2020	2019	2018	2017
Procurement volume	3,856	2,847	3,414	3,603	3,144

Production (unaudited section)

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

B.42 Plant Utilization in 2021

%	Plant Utilization Rate
WACKER SILICONES	97
WACKER POLYMERS	93
WACKER POLYSILICON	100

Capital expenditures for 2021 amounted to €343.8 million (2020: €224.4 million). Maintenance costs totaled around €386.2 million.

B.43 Key Start-Ups

Location	Projects	Year
Amsterdam	Capacity expansion and integration of specific mRNA customer processes	2021
Burghausen	Capacity expansion for the production of hydrophobic silica	2021
Burghausen	Capacity expansion of silicone-based facility	2021

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 2021, we handled 1,000 improvement projects, involving savings spanning all cost types. The focus of improvement measures in 2021

was to increase capacity amid high utilization of production facilities. An additional focus was on measures to reduce specific energy consumption in the interest of sustainability.

As a response to the coronavirus pandemic, the wos ACADEMY developed several new online courses in 2021 and provided training to over 100 employees in improvement methods such as Six-Sigma and LEAN.

Sales and Marketing (unaudited section)

WACKER recorded a significant increase in sales in all business divisions in 2021. High sales volumes and better prices were the main drivers. The largest percentage growth was achieved by WACKER POLYSILICON, which nearly doubled its sales. The three business divisions WACKER SILICONES, WACKER POLYMERS and WACKER BIOSOLUTIONS each increased their sales by a double-digit percentage.

WACKER's chemical business is geared to three customer groups: key accounts, regional customers and distributors. WACKER currently has 40 key accounts, through which it generated around 26 percent of its total chemical sales in 2021. 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 2021, WACKER spent €5.7 million on marketing communication (2020: €7.5 million).

There were 48 tradeshow (2020: 32). 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 2021 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 48 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	2021	2020
Sales	4,811.6	3,579.1
Changes in inventories	86.7	-65.3
Other capitalized self-constructed assets	36.9	32.7
Gross profit from sales	4,935.2	3,546.5
Other operating income	180.1	183.5
Cost of materials	-2,341.5	-1,819.6
Personnel expenses	-1,079.7	-1,067.5
Depreciation/amortization	-149.9	-169.6
Other operating expenses	-721.6	-722.8
Operating result	822.6	-49.5
Result from investments in subsidiaries, joint ventures and associates (incl. reversals of impairments)	99.2	63.8
Net interest result	-105.1	-92.4
Other financial result	21.5	-31.6
Financial result	15.6	-60.2
Income before income taxes	838.2	-109.7
Income taxes	-202.5	8.2
Net result	635.7	-101.5
EBITDA¹	972.5	120.1

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 developed well in 2021, marked by a significant increase in operating performance and EBITDA. At year-end, Wacker Chemie AG posted net income of €635.7 million, compared with a net loss of €-101.5 million a year earlier. That was a year-over-year increase of €737.2 million.

Wacker Chemie AG's sales rose by a substantial 34 percent to €4.81 billion (2020: €3.58 billion). All of the business divisions contributed toward this growth. At WACKER SILICONES, sales of €1.95 billion were up 15 percent (2020: €1.70 billion). WACKER POLYMERS' sales grew to €1.0 billion (2020: €780.1 million), an increase of 28 percent. Sales at WACKER BIOSOLUTIONS increased by €10.3 million to €155.9 million (2020: €145.6 million). In 2021, WACKER POLYSILICON posted significant growth in sales, with an increase of 93 percent to €1.53 billion (2020: €794.2 million). Overall operating performance rose by €1.39 billion to €4.94 billion.

The cost of materials increased by €521.9 million in 2021 to €2.34 billion (2020: €1.82 billion), with expenses rising in particular for strategic raw materials procured. Above all, higher prices and volumes for vinyl acetate monomer had a negative impact on earnings. Prices for methanol, ethylene and acetic acid increased as well. Expenses for energy also went up in 2021 compared with the previous year. The material-to-sales ratio for 2021 was 47.4 percent (2020: 51.3 percent).

Personnel costs rose slightly, increasing by 1 percent to €1.08 billion (2020: €1.07 billion). This increase was due not only to collective bargaining wage and salary increases, but in particular to higher variable compensation components, which will be paid out in 2022. In the prior year, personnel expenses also included non-recurring expenses to secure financing of the pension fund (Pensionskasse der Wacker Chemie VVaG) as well as for the Shape the Future restructuring program. As of December 31, 2021, Wacker Chemie AG had 9,724 employees (Dec. 31, 2020: 9,823). The employee-expense ratio dropped to 21.9 percent (2020: 30.1 percent).

Depreciation and amortization decreased again, falling to €149.9 million (2020: €169.6 million), a drop of 12 percent.

The other operating result (other operating income less other operating expenses) of €-541.5 million remained at the prior-year level (2020: €-539.3 million). 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. Expenses for maintenance and other contractor work increased slightly in 2021. In the prior year, restructuring charges of €48.9 million were posted in connection with the Shape the Future project. The foreign currency result declined by €52.6 million to €-25.5 million (2020: €27.1 million).

The operating result came in at €822.6 million and thus clearly exceeded the prior-year level of €-49.5 million. In particular, higher sales in 2021 were the main reason for this growth.

The result from investments in subsidiaries, joint ventures and associates mainly comprised income from profit-and-loss transfer agreements and dividend payments. This income of €99.2 million was higher than the prior-year figure of €63.8 million. In 2021, subsidiaries made higher dividend payments. On the other hand, dividend income from the investment in Siltronic AG was lower. In addition, impairment losses were reversed in the total amount of €24.0 million on the shares in WACKER Química do Brasil Ltda., Jandira – São Paulo, Brazil, and in Dow Siloxane (Zhangjiagang) Holding Co. Private Ltd., Singapore.

The net interest result declined to €-105.1 million (2020: €-92.4 million). The primary reason was an increase in interest expense for pension obligations to €93.8 million (2020: €85.4 million).

Income tax expenses amounted to €202.5 million (2020: €-8.2 million). The effective tax rate was 24.9 percent.

The fiscal year ended with net income of €635.7 million. Retained profit for 2021 – adjusted for the loss carried forward from a year earlier and the €99.4 million in dividend payments – totaled €1.73 billion (2020: €1.20 billion).

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

Wacker Chemie AG's total assets increased 16 percent year over year to €6.99 billion (Dec. 31, 2020: €6.04 billion). The individual balance-sheet items did not develop uniformly.

B.45 Statement of Financial Position

€ million	2021	2020
Assets		
Intangible assets	5.2	5.5
Property, plant and equipment	1,015.7	982.3
Financial assets	2,940.8	2,665.1
Fixed assets	3,961.7	3,652.9
Inventories	663.7	562.6
Trade receivables	438.6	346.8
Other receivables and other assets	391.8	322.5
Receivables and other assets	830.4	669.3
Securities and fixed-term deposits	712.9	680.6
Cash on hand and bank deposits	770.5	463.4
Current assets	2,977.5	2,375.9
Prepaid expenses	54.5	6.7
Total assets	6,993.7	6,035.5
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	1,734.9	1,198.6
Equity	3,140.7	2,604.4
Provisions for pensions and similar obligations	828.5	980.0
Other provisions	568.2	473.0
Provisions	1,396.7	1,453.0
Financing liabilities	1,632.8	1,507.3
Trade payables	446.4	264.2
Other liabilities	361.4	189.1
Liabilities	2,440.6	1,960.6
Deferred income	15.7	17.5
Total equity and liabilities	6,993.7	6,035.5

At €3.96 billion, fixed assets for 2021 were higher year over year (2020: €3.65 billion). Property, plant and equipment increased slightly year over year, as capital expenditures in the amount of €183.1 million (Dec. 31, 2020: €155.3 million) exceeded depreciation of €146.6 million (Dec. 31, 2020: €164.0 million). Financial assets also increased, from €2.67 billion to €2.94 billion. Noncurrent securities in the amount of €113.8 million and shares in a closed-end securities fund in the amount of €200.0 million were acquired in 2021. The scheduled repayment of a loan issued to Dow Siloxane (Zhangjiagang), Co. Ltd., China had the opposite effect. Effective January 1, 2021, seven shelf companies were merged into Wacker Chemie AG. The merger-related gain/loss was insignificant. Overall, fixed assets accounted for 57 percent of total assets, compared with 61 percent in the prior year.

Inventories increased year over year. They amounted to €663.7 million (Dec. 31, 2020: €562.6 million), an increase of 18 percent. This was primarily due to higher raw-material costs. Trade receivables increased by 26 percent, from €346.8 million to €438.6 million.

Other receivables and other assets amounted to €391.8 million as of the reporting date (Dec. 31, 2020: €322.5 million), an increase of 21 percent. They included receivables from affiliated companies in the amount of €291.0 million (Dec. 31, 2020: €246.8 million).

As of December 31, 2021, Wacker Chemie AG held €712.9 million in securities and fixed-term deposits with maturities of over three months (Dec. 31, 2020: €680.6 million). Wacker Chemie AG's bank deposits amounted to €770.5 million as of December 31, 2021 (Dec. 31, 2020: €463.4 million).

Equity came to €3.14 billion as of the reporting date (Dec. 31, 2020: €2.60 billion), yielding an equity ratio of 44.9 percent (Dec. 31, 2020: 43.2 percent). At Wacker Chemie AG's annual shareholders' meeting, a resolution was passed to distribute a dividend of €99.4 million from the retained profit for 2020. The remaining retained profit of €1,099.2 million was carried forward. As of December 31, 2021, retained profit totaled €1,734.9 million and mainly comprised current

net income of €635.7 million for 2021 and the profit carried forward from the preceding year.

Provisions for pensions and similar obligations declined by €151.5 million year over year to €828.5 million (Dec. 31, 2020: €980.0 million). In December 2021, a contractual trust arrangement (CTA) was set up with trust assets of €250 million and was netted against pension obligations. Lower discount rates and further additions had a contrary effect. Other provisions – primarily comprising those for personnel, taxes and environmental protection – increased in 2021, amounting to €568.2 million (Dec. 31, 2020: €473.0 million). Income tax provisions and provisions for variable salary components were the main reason for this rise of €95.2 million. Provisions accounted for 20 percent of total equity and liabilities (Dec. 31, 2020: 24 percent).

As of the reporting date, financial liabilities were €1,632.8 million (Dec. 31, 2020: €1,507.3 million), up 8 percent. Bank loans amounted to €1,054.5 million (Dec. 31, 2020: €1,057.5 million). Liabilities due to affiliated companies grew by €127.4 million to €571.8 million as of the reporting date (Dec. 31, 2020: €444.4 million). Overall, the share of financial liabilities in total equity and liabilities declined to 23 percent (Dec. 31, 2020: 25 percent).

Trade payables grew year over year by €182.2 million to €446.4 million (Dec. 31, 2020: €264.2 million), due largely to sharp increases in procurement prices for raw materials. As of the reporting date, other liabilities amounted to €361.4 million (Dec. 31, 2020: €189.1 million). The main reason for the increase was advance payments received, especially for polysilicon, which went up by €91.7 million to €203.7 million (Dec. 31, 2020: €112.0 million).

Deferred income came to €15.7 million as of the reporting date (Dec. 31, 2020: €17.5 million). It mainly comprised a payment by Siltronic AG to Wacker Chemie AG for the transfer of employees.

Cash flow from operating activities rose year over year, from €351.9 million to €702.6 million – due mainly to the higher net income for the year. The contribution of €250 million to a CTA to partially finance pension obligations with trust assets had a negative impact on cash flow from operating activities.

Wacker Chemie AG's cash outflow from investing activities amounted to €–453.4 million (2020: €–703.2 million). Available funds were invested in securities and fixed-term deposits in the amount of €348.8 million (2020: €589.4 million). Of this amount, €200 million was used to set up a closed-end fund. Cash inflow included the full repayment of a loan issued to Dow Siloxane (Zhangjiagang), Co. Ltd., China. 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) – increased to €598.0 million in the reporting year (2020: €222.8 million).

Cash inflows from financing activities amounted to €57.9 million (2020: €475.3 million). Intra-Group financing resulted in a cash inflow of €161.1 million (2020: €210.6 million), mainly attributable to existing cash pooling with us subsidiaries. The dividend paid for 2020 led to a cash outflow of €–99.4 million.

Liquidity – defined as the sum of securities, the fund WMM Universal Fonds, and cash on hand and bank deposits – increased to €1,799.2 million as of December 31, 2021. A year earlier, liquidity had amounted to €1,144.0 million. Net financial receivables – the balance of liquidity and liabilities to financial institutions – increased to €744.7 million as a result. A year earlier, the company had net financial debt of €86.5 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 2022, we anticipate a euro exchange rate of US\$1.15. 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.

The risks to the economy will continue in 2022. The progress made in containing the coronavirus pandemic will continue to influence global growth. We currently expect Wacker Chemie AG's sales this year to be substantially higher than last year. Net income for the year should be slightly lower than last year.

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 are also available online.

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 2021.

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.

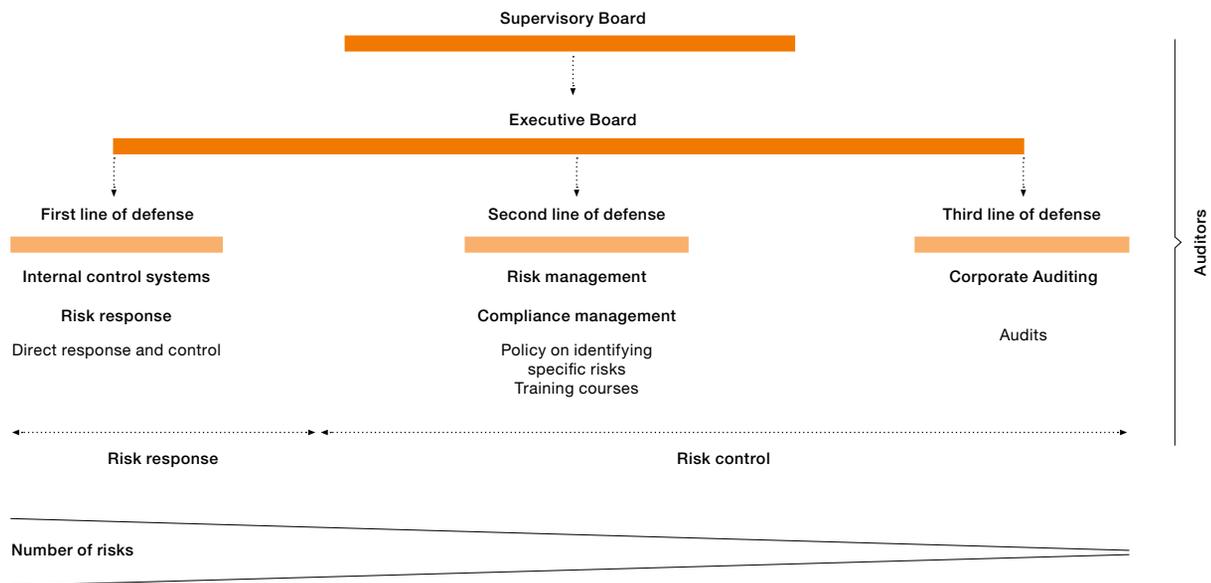
WACKER follows the Three Lines of Defense model to effectively manage corporate risks and ensure compliance with legal provisions and the ethical principles of corporate management.

➤ 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

B.46 Three Lines of Defense Model



tax department and checks on preliminary tax-related processes help minimize the corresponding risks.

The 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 (IFRS), 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

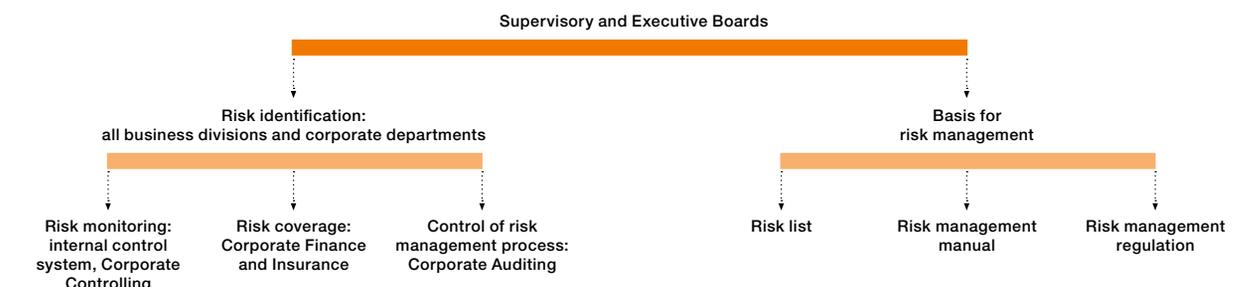
reliable data on the Group's earnings, net assets and financial position is available at all times. Our approach here complies with statutory provisions, accounting standards and internal accounting rules. The accounting manual, which is applicable groupwide and available on the WACKER intranet, represents 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 is the central unit for monitoring 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 reviews and audits are carried out at the end of each year as well as at the end of the first six months of each year.

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

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B.47 Risk Management System



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

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

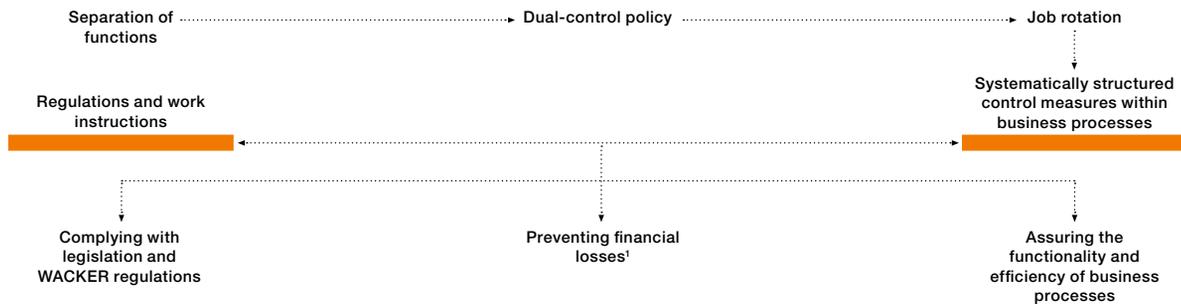
Risk Response

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

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

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

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

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 monitoring order-intake trends, market and competition analyses, customer talks, and ongoing observation and analysis of the economic environment.

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 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. In 2021, we introduced a groupwide whistleblower system in line with EU requirements. It enables WACKER's employees and business partners who detect potential violations of rules and regulations to report them to the company – directly, confidentially and anonymously.

The Group's compliance officers are responsible for ensuring that the compliance system is observed, and are on hand to advise employees on all compliance-related matters.

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 2021, 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, i.e. 2022.

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 weaken, 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 2022

Risk/Category	Probability	Possible Impact
Overall economic risks	Possible	High
Sales-market risks		
Chemicals	Unlikely	Medium
Polysilicon	Possible	Medium
Procurement-market risks	Likely	High
Investment risks	Possible	Medium
Production and environmental risks	Unlikely	Medium
Financial risks		
Credit risk	Unlikely	Low
Currency-exchange and interest-rate risks	Possible	Medium
Liquidity risk	Unlikely	Low
Pensions	Likely	High
Legal risks	Unlikely	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: After the severe recession of 2020 due to the coronavirus pandemic, the global economy expanded markedly last year. Economists expect this trend to continue in 2022. But they still see significant economic risks stemming from the pandemic, especially from possible virus variants and from partly insufficient vaccination coverage. Moreover, global bottlenecks for certain product groups – for example, in the chip industry – and for logistics are impeding economic activity.

Due to the continuing risks, we consider it possible that the global economy will fall short of current expectations for 2022. Should global economic activity prove much 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 for our products in 2022 to be low, especially in the first half. At the chemical divisions, both customer demand and the prices for our products remain high. Although we see no signs of a slowdown at present, the pandemic continues to evolve rapidly across the globe. It is difficult to reliably predict the virus's impact on WACKER's regions and customer sectors, above all for the second half of 2022.

Overall, we consider it unlikely that specific areas of our chemical business will face overcapacity and resultant price pressure. Our current projections are based on the assumption that the pandemic will be further brought under control in the course of 2022. Should that not be possible, this 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: The prices for solar-grade polysilicon climbed markedly last year and remain at a comparatively high level. Demand for our particularly high-quality polysilicon remains robust in both the semiconductor and solar sectors. On the other hand, the consolidation process in the solar industry is likely to continue in 2022. At the same time, competitors have announced plans to add new capacity to the market. Both factors could result in polysilicon prices coming under pressure again during 2022. Such a development 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; change to key relief regulations for energy-intensive industries.

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: Close cooperation between Procurement and our business divisions helps ensure that higher procurement costs are for the most part passed on to our customers, so that WACKER's margins remain stable. For strategic raw materials and energy, we prepare systematic annual procurement plans, which include an evaluation of the procurement risk. Wherever possible, we take appropriate countermeasures for any procurement risk classed as relevant. Such countermeasures include: long-term supply contracts; 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 by producing silicon metal and vinyl acetate. In energy procurement, we strive to utilize as many relief regulations as possible. Moreover, WACKER is advocating a Europe-wide industrial electricity price.

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.

As regards electricity costs, current German law partially exempts energy-intensive companies 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.

Raw-material and energy prices already rose significantly in 2021 and it is highly probable that this trend will continue in 2022. However, we expect to be able to increase the selling prices of our products correspondingly. Our planning is based on this scenario. The impact on earnings might be high at certain times, however, because there is always a time lag between price changes for procured energy and raw materials and when we are able to adjust the selling prices of our products.

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 lead to idle-capacity expenses and/or impairments of assets and 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 2022. 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 were to materialize, the impact on our earnings, net assets and financial position would probably be in the medium range. By the same token, we currently consider it unlikely that any negative trend in Siltronic AG's market capitalization will pose a risk to our financial position. Overall, we consider it possible that investment risks could materialize. Were these risks to materialize, they would probably have a medium impact on our earnings, net assets and financial position.

Production and Environmental Risks

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

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

Measures: WACKER coordinates its processes through its integrated management system (IMS). This system regulates workflows and responsibilities, attaching equal importance to productivity, quality, the environment, and health and safety. The IMS is based on statutory regulations, and on national and international standards, such as Responsible Care® and the UN Global Compact, which go far beyond legally prescribed standards. We focus on securing the highest possible level of operational safety at our production sites by monitoring maintenance extensively and by performing regular plant inspections. We conduct thorough safety and risk analyses, from the design stage through to commissioning, to ensure the safety of our plants. We regularly hold seminars on plant and workplace safety, and 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 2022 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 €1.98 billion as of the reporting date. At the same time, there were unused lines of credit with terms of over one year totaling around €900 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. We periodically adjust the calculation parameters (e.g. life expectancy) for the other defined-benefit pension commitments. As instructed by the German Financial Supervisory Authority (BaFin), the pension fund ceased taking new hires as of year-end 2021 into its pension plan AVB 2013 (General Insurance Terms and Conditions of 2013). Starting 2022, WACKER intends to offer new hires in Germany a company pension solely in the form of direct

commitments on a funded basis. These commitments are to be secured via a contractual trust arrangement (CTA), which finances the company's pension obligations. Employees covered by the old pension plans are to have the option of voluntarily switching to the new system. WACKER also wants to offer these employees a voluntary capital option, which allows them to choose a lump sum or installment payments instead of a lifelong pension. The company agreed with employee representatives on an outline of the key points in 2021, and negotiations to finalize a company agreement are currently in progress. Once these changes have been implemented, WACKER expects its provisions for pensions to decrease, which in turn would ease pressure on the company's statement of financial position.

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. By adopting the above-mentioned measures to reform our company pension system, we are countering the effects of these trends on our balance sheet. We do not assume that special payments to the pension fund will be necessary in 2022. For the foreseeable future, however, the existing plans will continue to dominate WACKER's company pension arrangements. In consequence, it is highly probable that more special payments to the fund will be needed in the next few years, that pension expenses and pension payments will rise further, and that higher provisions for pensions will weigh on the company's financial position. 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: The transformation of Germany's energy supply system that is necessary to achieve the CO₂-reduction targets set for 2030–2050 will likely lead to huge and repeated legislative amendments to the regulatory framework. This will affect not only the electricity sector, the mainstay of future energy supplies, but also natural gas and the hydrogen economy. We expect to see major amendments to Germany's Renewable Energy Act, affecting not only relief for energy-intensive companies and self-generated electricity, but also grid charges (including individual charges) and the rules for national and European emissions trading.

Impact on WACKER: Higher energy costs due to rising government-regulated charges and levies if exemption levels for energy-intensive industries are not maintained; plus the additional expense of complying with new administrative requirements.

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 reductions and in the calculation basis for grid levies have already caused WACKER's level of relief from grid charges to decline in recent years. Since 2021, regulations for Phase 4 of European emissions trading have been in effect to accelerate reduction of the emission ceiling in the European Union. This may lead to higher prices and lower allocations of emission allowances. In addition, we consider it possible that 2022 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. 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 2022.

Evaluation and Risk Assessment: The USA and China signed Phase 1 of a trade agreement on January 15, 2020. Under the agreement, China committed itself to purchase at least US\$250 billion worth of US-made goods in 2020 and 2021. This explicitly included solar-grade polysilicon. As China, however, did not lift its tariffs on US-made solar-grade polysilicon, WACKER could not export its Charleston-made solar-grade polysilicon from the USA to China at competitive terms. At the moment, it is not clear whether the USA and China will negotiate a successor agreement to their Phase 1 agreement. 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 2022 earnings would then probably be high.

New Regulations for Production Processes, Products and Their Applications

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. Additional legal provisions in individual countries raise the expense of necessary registrations.

Impact on WACKER: Extra investments in production facilities, conversion costs, revenue losses in certain application fields, plus extra costs for the required audits and registrations.

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 in 2022 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, on its reputation and on its production processes and workflows; loss of know-how.

Measures: WACKER constantly monitors the information technology it uses and also invests in protecting its IT systems and applications, thereby safeguarding the functionality and stability of its computer-based business processes. Our IT-security and risk-management specialists are responsible for handling hazards in a cost-efficient way. Their work is based on ISO 27001. An essential factor in configuring our systems for maximum availability (where necessary) is a robust backup and recovery procedure. Predefined processes and workflows are in place for emergencies (IT service continuity management). We minimize project-related IT risks by applying uniform project/quality management methods. These ensure that project outcomes and possible changes to IT services 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 technical and organizational countermeasures. Our Cyber Defense Center (CDC) continually monitors the security of our IT landscape and our applications. If the CDC identifies any vulnerabilities, it has them 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 that takes organizational and technical measures to counter risks to our security goals (confidentiality, integrity and availability of data and systems). IT security events and training courses ensure that our employees are appropriately sensitized. In addition, we regularly conduct comprehensive penetration tests, audits and assessments at our German 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 2021. 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 and service disruption 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 2022. 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. In 2021, the pandemic and the government measures to contain it and protect public health once again hampered the economy, especially supply chains. In many countries, infection rates surged again during the autumn and winter of that year. Thanks to our detailed action plans, we have thus far succeeded in limiting the impact of Covid-19 on our company. But the situation continues to evolve rapidly. In consequence, we cannot reliably estimate the future situation 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 pandemic and to measures taken by the authorities. If such a scenario occurs, it could have a high impact on WACKER's earnings. Depending on how the armed conflict in Ukraine develops, potential disruptions to our energy and raw-material supplies could have a negative impact on production.

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 2022, 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 CO₂ emissions, the world's increasing mobility needs, and the growing demand for products that enhance the quality of life. These trends remain as important as ever to our business.

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

We see good growth prospects for WACKER SILICONES in the electrical and electronics market, especially in automotive electronics. Growth is being spurred by digitalization, connectivity and electromobility. Electronic automotive assistance systems, for example, are becoming increasingly important and are indispensable for autonomous driving. Current studies predict that the number of largely autonomous vehicles among new registrations will reach some 76 million by 2035. Silicone gels and silicone encapsulants reliably protect the sensors and electronic components needed in such vehicles. During the next few years, electromobility is likely to gain further momentum. By 2025, the number of electric cars sold annually is expected to rise 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 the sites acquired in Amsterdam (2018) and San Diego (2021), the division has considerably expanded its capacities and skills in these fields. The acquired expertise in live microbial products and plasmid DNA is a valuable addition to our technology portfolio. In cyclodextrins, we are developing new applications, including for food supplements with anti-inflammatory and antioxidant properties.

The main growth opportunities for our polysilicon activities stem from the strong demand for semiconductors and for the monocrystalline silicon used in highly efficient solar cells. We produce polysilicon of consistently very high quality – the kind that is crucial for making increasingly powerful semiconductors. Polysilicon from WACKER can already be found in nearly half the computer chips worldwide. In the photovoltaics segment, the trend toward monocrystalline solar cells continues to gather pace. Monocrystalline silicon of particularly high purity (known as “n-type mono”) is needed to achieve the highest possible conversion efficiency. WACKER considers itself to be the world’s leading provider in this segment. In order to make the most of the opportunities presented by these trends, WACKER POLYSILICON has placed its strategic focus firmly on the manufacture of polysilicon of the highest quality.

Strategic Opportunities

In order to make the most of our divisions’ opportunities for further growth, we will concentrate on meeting rising customer demand and bolstering our downstream-product capacity, particularly for specialties. The capital expenditures required for this will climb substantially in 2022. 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, which are used, for example, as binders for formulating high-quality adhesives and sealants. Another expansion project at the site is the construction of a

liquid resins plant. It will supply key upstream products for formulating silicone-based building-protection agents and binders for exterior paints and industrial coatings. At Nanjing (China), we are currently building new facilities for dispersions and dispersible polymer powders to supply the construction sector.

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.

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.

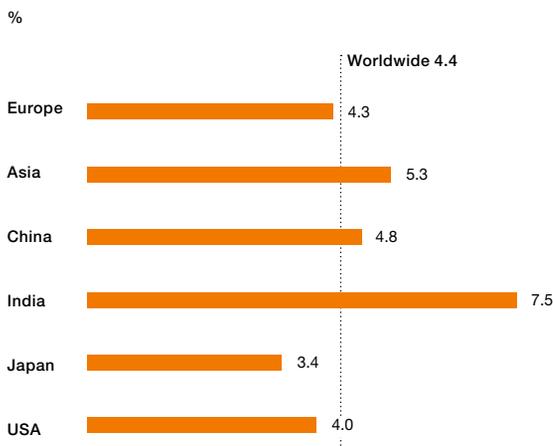
As of the publication date of this report, the Executive Board does not see any individual or aggregate risk that could seriously endanger WACKER’s future. The risks, particularly those stemming from the coronavirus pandemic, indeed remain high. But, thanks to our extensive product portfolio and firm 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 world economy will continue to rebound in 2022. But, according to economic analysts, growth will be at a slower pace. The OECD (Organisation for Economic Cooperation and Development) expects 4.5 percent growth in 2022, slowing to 3.2 percent in 2023. The OECD made its outlook conditional, due to uncertainties surrounding the future course of the pandemic and supply bottlenecks in key industries. The IMF (International Monetary Fund) also sees significant risks to economic growth and the Fund's economists recently lowered their outlook. They estimate that global GDP (gross domestic product) will climb by 4.4 percent in 2022. The pandemic will hamper economies to varying degrees. Alongside concerns about the future spread of the pandemic, analysts are troubled both by the rapid increase in debt in every country due to stimulus packages and by high inflation rates. In addition, geopolitical crises such as in Ukraine could slow economic growth.

B.50 GDP Trends in 2022



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

Sector-Specific Conditions

In 2022, economic trends in the industries relevant to our business will remain under the cloud of the coronavirus pandemic. Varying rates of vaccination and infection could lead to uneven trends, across both regions and market segments. A further hurdle is posed by risks from persistent material shortages in numerous industries. In our opinion, however, the sectors that are important for us will perform well.

Chemical Industry Upturn to Continue in 2022

After the chemical industry's robust growth in 2021, the upswing should continue in 2022. The German Chemical Industry Association (vci) anticipates that production in Germany's chemical and pharmaceutical industry will increase by 2 percent, with sales up 5 percent.

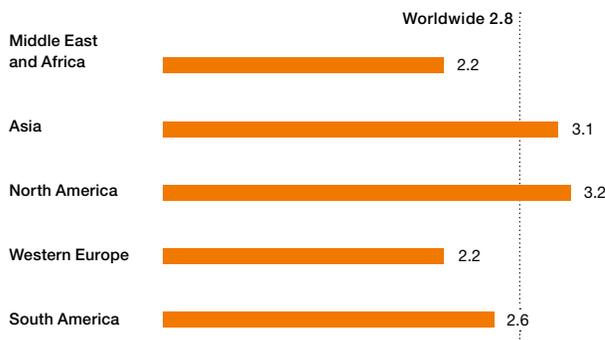
Given the uncertainties surrounding the pandemic, risks for WACKER's chemical divisions remain. But the strength of our broad product portfolio has already proved itself in the present crisis. Our assumption is that WACKER will continue to grow across all its core markets in 2022. That applies in particular to pharmaceutical and medical applications and to label manufacturing, where we are benefiting from the burgeoning mail-order sector. We supply high-purity silanes and acids to the electronics industry. Demand will grow strongly here, spurred by expansion of the 5G mobile network and by autonomous driving.

What is more, the long-term trends have not changed and will accelerate in some cases. We see medium-term growth opportunities in all regions due to innovations arising from today's megatrends, such as the ongoing digital transformation. Rising affluence in emerging economies is likely to 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 stronger demand from our 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 to Continue Growing

According to market research institute B+L Marktdaten GmbH, global construction volume will expand over the medium term. On average, it is expected to rise by 2.8 percent annually through 2024. Construction expenditure is likely to grow somewhat faster in Asia and North America than in other regions.

B.51 Construction-Industry Growth Rates by Region, 2022–2024
%



Source: B+L Marktdaten GmbH, November 2021

WACKER POLYMERS, too, expects to see an upward trend in 2022, driven by renovation, energy efficiency and sustainability. Numerous government programs around the world, such as the European Green Deal and China’s plan to achieve climate neutrality by 2060, should create additional momentum for the construction industry in the coming years.

At WACKER SILICONES, the percentage of value-added specialty products is expected to increase further in many segments. Growth prospects are bright for hybrid polymers, which are used to formulate high-performance adhesives and sealants. The same goes for silane-based cement additives, which not only offer energy-savings during the production process and an improved shelf life, but also enhance the quality and durability of concrete. Another area gaining traction is the development of novel building additives to better cope with changes in

raw-material quality and availability. In thermal insulation, we anticipate business growth in areas ranging from household appliances to refrigerated transport boxes, e.g. for carrying vaccines. There are also good opportunities for our “eco” product line, which is based on resource-efficient raw materials.

Positive Trend in Electrical Engineering and Electronics Sector

The German Electro and Digital Industry Association (zvei) forecasts further growth in 2022. It expects global market volumes to expand by about 6 percent. The increase will be driven by both emerging and advanced economies.

WACKER continues to see good growth prospects in the automotive industry, fueled for example by the increasing use of driver-assistance systems, sensors and optical displays. Once the semiconductor crisis is over, our business could benefit from a catch-up phase in automotive sales. Opportunities will also come from the growing significance of electromobility, an area in which there is growing demand for silicone-based components.

Further Increase in Installed Photovoltaic Capacity Likely in 2022

Economic conditions for photovoltaics (PV) will remain dynamic and challenging in 2022. On the one hand, intense competition is creating market uncertainty. On the other, leveled 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 degrees Celsius 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 2022. 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 180 and 230 gigawatts (GW) in 2022.

B.52 Photovoltaic-Market Trend in 2022

	Installation of New PV Capacity (MW)		
	Lower Range	2022	
		Upper Range	2021
Germany	6,000	9,000	5,300
Spain	4,000	6,000	3,800
Rest of Europe	20,000	25,000	19,900
USA	20,000	25,000	25,000
Japan	6,000	8,000	7,500
China	65,000	80,000	54,900
India	10,000	15,000	12,000
Other regions	49,000	62,000	41,600
Total	180,000	230,000	170,000

Sources: Germany's Federal Network Agency, SolarPower Europe (SPE), Solar Energy Industries Association (SEIA), China National Energy Agency, market studies, WACKER's own market research (Table B.52 unaudited)

B.53 WACKER's Key Customer Sectors

Sectors	Trend in 2021	Trend in 2022
Chemicals	Growth	Growth
Construction	Growth	Growth
Energy and electrical	Growth	Growth
Photovoltaics	Growth	Growth

The WACKER Group's Prospects

Based on our assumptions, we expect the global economy to expand in 2022. The strength of this growth will depend, for example, on whether and to what extent we continue to bring the pandemic under control, and to what extent geopolitical crises such as in Ukraine dampen demand. We expect the strongest growth impetus from Asia, with the USA and Europe also making gains.

Capital Expenditures and Production

Like last year, our capital expenditures in 2022 will concentrate on production plants for intermediates and downstream products. At between €550 million and €600 million, capital expenditures will be markedly higher than both last year's level and depreciation/amortization. The investment focus will be WACKER SILICONES, which will account for about 50 percent. The division's capital expenditures include construction of a new plant for hybrid polymers in Nünchritz. In the course of the year, WACKER POLYMERS will continue expanding its production facilities in Nanjing and putting some of them into production.

B.54 Facility Start-Ups in 2022/2023

Location	Projects	Start-Up
Adrian	Multifunctional emulsion plant	2022
Burghausen	Liquid-silicone-rubber production plant	2022
Nanjing	Dispersion reactor	2022
Nünchritz	Plant for hybrid polymers	2022
Nünchritz	New production capacity for liquid resins	2022
Burghausen	Capacity expansion for silicone resins	2023
Nanjing	Spray dryer for dispersions	2023
Amsterdam	New fermenter	2023

Future Products and Services

WACKER SILICONES is leveraging diverse applications in the construction, electronics, automotive, health and renewable-energy industries. In the construction sector, there are new application opportunities for silane-modified hybrid polymers, e.g. as sealants or adhesives. Our new, silane-based cement additives are also highly promising. They not only reduce energy consumption during cement production, but also improve the storage stability and performance of cement and concrete. WACKER is also developing a silicone resin binder for composite stone. Such composite materials are UV-resistant and, for the first time, lend themselves to outdoor applications, too. Other construction priorities include fiber composites. Silicone resins enable materials to be made that meet more stringent fire-safety regulations. In our electronics focus field, we are working not only on printable elastic electrode materials for sensors, but also on resin-filled, optically transparent systems for optical bonding applications and on electroactive silicone laminates for making innovative touchscreens for the entertainment, medical and automotive industries. We see significant growth potential in today's soaring demand for silicone elastomers in the health, automotive and electromobility sectors – our thermally conductive silicones are in particularly high demand. Our new surface-modified, silicon-based filler systems improve the cooling and thermal management of electronic components and electrical storage modules. We are also working on flame-retardant silicones that protect electric-vehicle passengers more effectively against fire hazards. At high temperatures, these silicones create a ceramic layer that enhances the fire resistance of the battery casing. In our renewable-energy focus field, we are active in fuel-cell engineering. Together with automotive manufacturers and suppliers, we are developing cured

films for use as fuel-cell liners. In solar thermal energy, our silicone-based heat transfer fluids offer highly promising opportunities. Compared with organic media, these fluids enable parabolic trough power plants to operate at higher temperatures and thus much more efficiently and economically.

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 a commercial-scale line of dispersions based on vinyl acetate-ethylene copolymers that incorporate renewable raw materials, such as bio-based acetic acid. We employ the biomass balance approach to increase the use of renewable raw materials. Such products are part of our VINNAPAS® eco product line. Our 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 CO₂ 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 growing demand through our sites in Jena, Halle and Amsterdam. At the Amsterdam site, where production includes vaccines and live microbial products (LMPs), we have been expanding our capacity. We can now, for example, produce new classes of actives here, such as mRNA-based vaccines. At the San Diego site we acquired in 2021, we produce plasmid DNA (pDNA), which is a starting material for innovative therapeutic agents, including nucleic-acid-based gene therapies, mRNA actives and viral vectors. We are also developing a process for making lipid nanoparticles – another essential component in the production of mRNA-based actives. In the food market, we are catering to the healthy-eating trend, e.g. with our range of functional

ingredients that support the circulatory system and promote heart health. We are continuously expanding our portfolio in this area. At present, we are working on a process for fermentation-generated biotin. Our cyclodextrins also play an ever greater role in the formulation of active ingredients. For example, they enhance the bioavailability of curcumin. We also offer solutions for making alternative proteins – our L-cysteine is an ideal raw material for savory flavorings. Cyclodextrins help with the formulation of alternative proteins. Moreover, we are developing media proteins, which will be used to produce cell culture meat.

In the coming years, demand for high-quality polysilicon will climb in both the semiconductor and the solar industries. In semiconductors, polysilicon of increasingly higher purity is needed, owing to stricter requirements in chip manufacturing and the development of new technologies. In line with this trend, WACKER is constantly increasing the proportion of ultrapure polysilicon it produces for the semiconductor industry. In the solar sector, demand is growing above all for monocrystalline cells made of n-type silicon. According to Germany's Mechanical Engineering Industry Association (VDMA), half of all silicon wafers will be manufactured using this technology by 2031. n-type solar cells are more efficient and have a longer life than the currently dominant p-type cells. With our hyperpure polysilicon, we are ideally placed to supply this fast-growing segment.

Outlook for 2022

WACKER's main planning assumptions relate to raw-material and energy costs, personnel expenses and exchange rates. For 2022, we anticipate a euro exchange rate of US\$1.15 (2021: US\$1.20). Energy prices and the average prices of our key raw materials should be significantly higher than last year. The majority of our raw-material and energy supplies are secured for 2022. However, this is based on the assumption that the geopolitical crisis in Eastern Europe will not lead to severe restrictions in Europe's energy supplies. 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.

Performance Indicators and Value-Based Management

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

Group Sales in 2022 to Benefit from Volume Growth

In 2022, WACKER expects to see volume growth and positive product-mix effects at its chemical divisions. In addition, changes in exchange rates will have a positive effect on sales. We expect to grow our sales across all regions. Overall, Group sales are likely to be approximately €7 billion.

Economic uncertainties may cause the actual performance of the WACKER Group and its divisions to diverge from our assumptions, either positively or negatively. However, we expect to continue growing in 2022, as long as there are no unforeseen slumps in WACKER's key regions and industries, due for example to geopolitical crises such as in Ukraine, 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 expected to be significantly lower than last year. EBITDA should be within the bandwidth of €1.2 billion to €1.5 billion. Markedly higher raw-material and energy costs will have a negative impact of around €1 billion on EBITDA. This Group guidance also takes account of some of the economic uncertainty caused by the coronavirus pandemic. Group net income for the year will be markedly lower than last year.

ROCE: ROCE will be substantially higher than the cost of capital.

Net cash flow: we expect net cash flow to be clearly positive in 2022, though substantially lower than last year. This decrease will be driven by higher capital expenditures and an increase in working capital.

Outlook for Supplementary Performance Indicators at the Group Level

Capital expenditures: in 2022, capital expenditures will amount to between €550 million and €600 million, significantly more than last year and thus substantially higher than depreciation/amortization. At around €400 million, depreciation and amortization will be on par with last year. CapEx is being driven by strong customer demand and includes new dispersion and dispersible polymer powder facilities at the Nanjing site, capacity expansion for silicones at Burghausen, and a plant for making hybrid polymers at Nünchritz.

Net financial debt: net financial assets are likely to be substantially lower than last year, but still in positive territory.

Divisional Sales and EBITDA Trends

We expect WACKER SILICONES to post sales in the region of €3.0 billion in 2022. This sales growth will be driven by higher volumes for specialty applications and the higher average prices we will charge to compensate for the sharp increase in raw-material prices. The investment in specialty silane manufacturer sico Performance Material in China is also likely to have a positive impact. We anticipate sales growth in all regions. The EBITDA margin is expected to be on par with last year.

At WACKER POLYMERS, we expect sales to grow to around €2.0 billion, buoyed by higher volumes of dispersions and dispersible polymer powders. Selling prices will be higher than last year, so as to offset increases in raw-material and energy prices as well as other costs. In this division, too, we anticipate sales growth in all regions. The EBITDA margin is expected to be on par with last year.

B.55 Outlook for 2022

Key Financial Performance Indicators	Reported for 2021	Outlook for 2022
EBITDA margin (%)	24.8	Substantially lower than last year
EBITDA (€ million)	1,538.5	€1,200–1,500 million
ROCE (%)	28.3	Substantially higher than the cost of capital
Net cash flow (€ million)	760.8	Clearly positive, substantially lower than last year
Supplementary Financial Performance Indicators		
Sales (€ million)	6,207.5	Around €7,000 million
Capital expenditures (€ million)	343.8	€550–600 million
Net financial assets / net financial debt (€ million)	–546.5	Positive net financial assets
Depreciation/amortization (€ million)	404.2	Around €400 million

We predict that WACKER BIOSOLUTIONS will lift its sales by a low-double-digit percentage, with growth fueled by bioengineered products, particularly biologics. EBITDA should be slightly lower than last year. Earnings will be negatively impacted by downtime at a key plant for upstream chemicals and by higher expenses for digitalization efforts in the biologics segment.

We anticipate that WACKER POLYSILICON will post sales of around €1.6 billion in 2022, with volumes lower than last year given that we cannot realize any further inventory effects. Average polysilicon prices are expected to be higher than last year. However, surging raw-material and energy costs will have a negative impact. We will continue improving our product mix and systematically lowering costs. EBITDA is likely to come in between €330 million and €500 million.

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, 2021, WACKER had around €900 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 2022. The coronavirus pandemic will continue to impact global economic growth. On the positive side, economic analysts expect global gross domestic product (GDP) to continue growing, thanks to vaccination campaigns, concerted health-policy measures and government funding. We expect a positive business trend in 2022, with sales likely to be approximately €7 billion. EBITDA should be between €1.2 billion to €1.5 billion. The EBITDA trend will be dampened by significantly higher energy and raw-material costs, which are likely to total around €1 billion.

Capital expenditures will be driven by strong customer demand. At between €550 million and €600 million, they will be markedly higher than last year. 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. WACKER's net financial assets are likely to be significantly lower than last year, but still in positive territory.

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. We expect sales at WACKER POLYSILICON to be on par with last year.

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

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Our product portfolio provides solutions to reduce emissions at their main source, such as the construction industry, energy generation and transport – for a sustainable world.

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Consolidated Financial Statements

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c.1 **Statement of Income**

January 1 to December 31

€ million	Notes	2021	2020
Sales	01	6,207.5	4,692.2
Cost of goods sold	02	-4,535.0	-3,822.3
Gross profit from sales		1,672.5	869.9
Selling expenses		-297.6	-290.6
Research and development expenses		-164.2	-156.6
General administrative expenses		-158.8	-139.5
Other operating income	02	88.6	85.5
Other operating expenses	02	-68.7	-142.9
Operating result		1,071.8	225.8
Result from investments in joint ventures and associates	03	62.4	34.9
Other investment income	03	0.1	2.1
EBIT (earnings before interest and taxes)		1,134.3	262.8
Interest income	03	6.2	8.1
Interest expenses	03	-22.5	-22.0
Other financial result	03	-24.4	-31.0
Financial result		-40.7	-44.9
Income before income taxes		1,093.6	217.9
Income taxes	04	-265.8	-15.6
Net income for the year		827.8	202.3
Of which			
Attributable to Wacker Chemie AG shareholders		806.9	189.2
Attributable to non-controlling interests	13	20.9	13.1
Earnings per common share (€) (basic/diluted)	20	16.24	3.81

c.2 Statement of Comprehensive Income

January 1 to December 31

€ million	2021	2020
Net income for the year	827.8	202.3
Items not subsequently reclassified to the statement of income		
Remeasurement of defined benefit plans	533.9	-340.8
Of which income tax effects	-194.3	140.4
Sum of items not reclassified to the statement of income	533.9	-340.8
Of which result from investments accounted for using the equity method	50.9	-29.1
Items subsequently reclassified to the statement of income		
Difference from foreign currency translation adjustment	174.3	-179.8
Of which recognized in profit or loss	-	-
Changes in the value of securities (FVOCI)	-1.1	-
Of which income tax effects	0.5	-
Of which recognized in profit or loss	-	-
Changes in fair value of derivative financial instruments (cash flow hedge)	-15.9	9.3
Of which income tax effects	6.2	-3.9
Of which recognized in profit or loss	-4.2	-2.2
Sum of items reclassified to the statement of income	157.3	-170.5
Of which result from investments accounted for using the equity method	19.1	-18.9
Income and expenses recognized in equity	691.2	-511.3
Of which		
Attributable to Wacker Chemie AG shareholders	685.8	-506.1
Attributable to non-controlling interests	5.4	-5.2
Total income and expenses reported in the fiscal year	1,519.0	-309.0
Of which		
Attributable to Wacker Chemie AG shareholders	1,492.7	-316.9
Attributable to non-controlling interests	26.3	7.9

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C.3 Statement of Financial Position

As of December 31

€ million	Notes	Dec. 31, 2021	Dec. 31, 2020
Assets			
Intangible assets	05	45.9	21.1
Property, plant and equipment	05	2,466.9	2,393.2
Right-of-use assets	06	138.8	110.8
Investment property	07	2.3	2.7
Investments in joint ventures and associates accounted for using the equity method	08	708.9	599.5
Securities	11	318.5	–
Other financial assets	10	18.8	18.9
Other receivables and assets	10	16.5	4.9
Deferred tax assets	04	569.7	770.8
Noncurrent assets		4,286.3	3,921.9
Inventories	09	1,177.0	879.5
Trade receivables	10	824.8	627.0
Other financial assets	10	33.4	68.0
Other receivables and assets	10	118.1	73.5
Income tax receivables	10	29.9	40.5
Securities and fixed-term deposits	11	738.2	712.0
Cash and cash equivalents	11	926.6	626.0
Assets held for sale	12	–	2.1
Current assets		3,848.0	3,028.6
Total assets		8,134.3	6,950.5
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		3,433.5	2,726.0
Other equity items		–788.1	–1,473.9
Equity attributable to Wacker Chemie AG shareholders		3,018.5	1,625.2
Non-controlling interests		81.9	66.6
Equity	13	3,100.4	1,691.8
Provisions for pensions	14	1,813.4	2,713.4
Other provisions	15	247.7	233.8
Financing liabilities	16	1,064.0	1,322.7
Other financial liabilities	17	13.4	0.1
Income tax liabilities	17	117.5	80.3
Contract liabilities	17	56.3	71.1
Other liabilities	17	–	1.9
Deferred tax liabilities	04	9.7	9.1
Noncurrent liabilities		3,322.0	4,432.4
Other provisions	15	21.8	68.8
Financing liabilities	16	372.8	82.8
Trade payables	17	761.9	424.2
Other financial liabilities	17	30.5	15.5
Income tax liabilities	17	69.0	12.5
Contract liabilities	17	168.3	63.0
Other liabilities	17	287.6	159.5
Current liabilities		1,711.9	826.3
Liabilities		5,033.9	5,258.7
Total equity and liabilities		8,134.3	6,950.5

C.4 Statement of Cash Flows

January 1 to December 31

€ million	Notes	2021	2020
Net income for the year		827.8	202.3
Depreciation, amortization and (reversals of) impairments of fixed assets		404.2	403.5
Result from disposal of fixed assets		3.3	2.6
Other non-cash expenses and income		-116.8	24.2
Result from equity accounting		-62.4	-34.9
Net interest income		16.3	13.9
Interest paid		-21.6	-23.3
Interest received		6.7	7.9
Income tax expense		265.8	15.6
Taxes paid		-151.0	-11.3
Dividends received		23.0	27.8
Change in inventories		-165.9	42.5
Change in trade receivables		-185.2	-21.0
Change in non-financial assets		-38.0	-10.2
Change in financial assets		-10.9	6.9
Change in provisions		-262.8	50.8
Change in non-financial liabilities		126.9	80.6
Change in financial liabilities		315.0	81.7
Change in contract liabilities		90.0	14.1
Cash flow from operating activities (gross cash flow)	22	1,064.4	873.7
Investments in intangible assets, property, plant and equipment, and investment property		-321.3	-226.5
Investments in financial assets		-0.3	-0.4
Proceeds from the disposal of fixed assets/ financial assets		46.8	50.9
Cash payments for acquisitions		-28.8	-
Cash flow from long-term investing activities before securities		-303.6	-176.0
Cash receipts from the disposal of securities and fixed-term deposits		496.8	334.1
Cash payments for the acquisition of securities and fixed-term deposits		-832.9	-941.2
Cash flow from investing activities	22	-639.7	-783.1
Dividends paid		-99.4	-24.8
Dividends paid to non-controlling interests		-11.0	-3.4
Additions to financing liabilities		2.4	518.2
Repayment of financing liabilities		-14.5	-341.1
Lease liabilities repaid		-31.4	-31.8
Cash flow from financing activities	22	-153.9	117.1
Change due to exchange-rate fluctuations		29.8	-17.5
Change in cash and cash equivalents	11	300.6	190.2
At the beginning of the year		626.0	435.8
At the end of the year		926.6	626.0

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, 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
Jan. 1, 2021	260.8	157.4	-45.1	2,726.0	-1,473.9	1,625.2	66.6	1,691.8
Net income for the year	-	-	-	806.9	-	806.9	20.9	827.8
Income and expenses recognized in equity	-	-	-	-	685.8	685.8	5.4	691.2
Total comprehensive income	-	-	-	806.9	685.8	1,492.7	26.3	1,519.0
Dividends paid	-	-	-	-99.4	-	-99.4	-11.0	-110.4
Dec. 31, 2021	260.8	157.4	-45.1	3,433.5	-788.1	3,018.5	81.9	3,100.4

C.6 Reconciliation of Other Equity Items

January 1 to December 31

€ million	Changes in fair value of securities – FVOCI	Impairments of securities – FVOCI	Difference from foreign currency translation adjustment	Changes in fair value of derivative financial instruments (cash flow hedge)	Remeasurement of defined benefit plans	Effects of net investments in foreign operations	Total
Attributable to Wacker Chemie AG shareholders							
Jan. 1, 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
Jan. 1, 2021	–	–	19.3	11.0	–1,500.5	–3.7	–1,473.9
Changes recognized in equity	–1.2	0.1	–	–11.7	533.9	–	521.1
Reclassification to the statement of income	–	–	–	–4.2	–	–	–4.2
Changes in exchange rates	–	–	168.9	–	–	–	168.9
Dec. 31, 2021	–1.2	0.1	188.2	–4.9	–966.6	–3.7	–788.1
Attributable to non-controlling interests							
Jan. 1, 2020	–	–	–5.5	–	–	–	–5.5
Changes in exchange rates	–	–	–5.2	–	–	–	–5.2
Dec. 31, 2020	–	–	–10.7	–	–	–	–10.7
Jan. 1, 2021	–	–	–10.7	–	–	–	–10.7
Changes in exchange rates	–	–	5.4	–	–	–	5.4
Dec. 31, 2021	–	–	–5.3	–	–	–	–5.3

C.7 Segment Information by Division

January 1 to December 31

€ million	Silicones	Polymers	Biosolutions	Polysilicon	Other	Consolidation	Group
2021							
External sales	2,599.0	1,653.3	296.4	1,529.8	129.0	–	6,207.5
Internal sales	0.1	20.3	–	–	–	–20.4	–
Total sales	2,599.1	1,673.6	296.4	1,529.8	129.0	–20.4	6,207.5
EBIT	421.0	198.7	20.7	528.9	–34.2	–0.8	1,134.3
Depreciation, amortization and (reversals of) impairments	131.9	53.9	17.9	127.8	72.7	–	404.2
EBITDA	552.9	252.6	38.6	656.7	38.5	–0.8	1,538.5
EBIT includes: result from investments in joint ventures and associates	3.9	–	–	–	58.5	–	62.4
Impairment of fixed assets	–0.7	–	–	–	–	–	–0.7
Asset additions ¹	143.2	100.1	33.5	30.6	36.4	–	343.8
Additions to financial assets	–	–	–	–	0.3	–	0.3
Asset additions	143.2	100.1	33.5	30.6	36.7	–	344.1
Assets (Dec. 31)	1,955.7	980.2	332.9	972.0	3,893.7	–0.2	8,134.3
Liabilities (Dec. 31)	996.1	538.8	122.1	583.5	2,793.9	–0.5	5,033.9
Net assets (Dec. 31)	959.6	441.4	210.8	388.5	1,099.8	0.3	3,100.4
Investments in joint ventures and associates included in net assets (Dec. 31)	49.3	–	–	–	659.6	–	708.9
Research and development expenses	64.7	35.1	5.6	21.3	37.5	–	164.2
Employees (Dec. 31)	5,211	1,595	751	2,219	4,630	–	14,406
Employees (average)	5,157	1,591	742	2,195	4,667	–	14,352
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 (reversals of) impairments	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)	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.

c.8 Segment Information by Region

January 1 to December 31

€ million	Germany	Rest of Europe	The Americas	Asia	Other regions	Consolidation	Group
2021							
External sales by customer location	961.8	1,408.9	895.7	2,637.1	304.0	–	6,207.5
External sales by Group company location	4,854.1	237.3	1,166.9	1,235.9	11.3	–1,298.0	6,207.5
Asset additions ¹	191.1	33.1	27.5	92.1	–	–	343.8
Additions to financial assets	0.3	–	–	–	–	–	0.3
Asset additions	191.4	33.1	27.5	92.1	–	–	344.1
Assets (Dec. 31)	8,097.5	2,319.0	1,800.5	1,100.3	11.8	–5,194.8	8,134.3
Liabilities (Dec. 31)	4,858.0	173.2	478.3	432.5	7.6	–915.7	5,033.9
Net assets (Dec. 31)	3,239.5	2,145.8	1,322.2	667.8	4.2	–4,279.1	3,100.4
Noncurrent assets ²	1,858.7	225.4	887.3	393.0	4.8	–	3,369.2
Research and development expenses	164.8	1.0	13.5	12.7	–	–27.8	164.2
Employees (Dec. 31)	10,006	728	1,723	1,882	67	–	14,406
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	1,730.6	205.6	845.0	345.9	5.1	–	3,132.2
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

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

The segment information by region is an integral part of the Notes to the Consolidated Financial Statements. For explanations of the key indicators, see Note 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 mbH, 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 3, 2022. They were submitted to the Supervisory Board for approval at its meeting on March 3, 2022.

New Accounting Standards

No new accounting standards and interpretations that have a material effect on WACKER have been applied for the first time in these 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		May 14, 2020	Jan. 1, 2022	June 28, 2021	WACKER currently assumes that the changes will not affect the Group's earnings, net assets and financial position.
Amendments to IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	May 14, 2020	Jan. 1, 2022	June 28, 2021	Under the amendment, when determining whether a contract is onerous, all costs relating directly to the contract are to be taken into account. Costs that relate directly to a contract can either be incremental costs of fulfilling that contract (examples would be direct labor, materials) or an allocation of other costs that relate directly to fulfilling contracts (an example would be the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract). As a general rule, WACKER only enters into contracts that will not become onerous based on the assumptions prevailing on contract conclusion. Consequently, no changes will arise on initial application of the amendments. Any adjustments from initial application are recognized directly in equity.
Amendments to IAS 16 Property, Plant and Equipment	Proceeds before Intended Use	May 14, 2020	Jan. 1, 2022	June 28, 2021	The change prohibits for the future 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. WACKER has not in the past exercised this possibility. Accordingly, there are no changes to WACKER's net assets or financial position arising from this clarification.
Amendments to IAS 1 Presentation of Financial Statements	Classification of Liabilities as Current or Noncurrent – Defer the Effective Date	Jan. 23, 2020, and July 15, 2020	Jan. 1, 2023		The amendments to IAS 1 clarify that the classification of liabilities as current or noncurrent is subject to the conditions applicable at the end of the reporting period. Classification is independent both of management's expectations and of any events after the balance sheet date. At the same time, the amendment clarifies what IAS 1 means by the term "settlement" of a liability. WACKER does not expect any changes to result from this clarification.
Amendments to IAS 1 Presentation of Financial Statements and Practice Statement 2	Disclosure of Accounting Policies	Feb. 12, 2021	Jan. 1, 2023		The amendments to IAS 1 clarify that, in the future, entities are required to disclose their material accounting policies rather than their significant accounting policies. Information is "material" if it could influence decisions made by users of the balance sheet. Accordingly, accounting policies that refer to insignificant transactions, events or circumstances will no longer be mentioned in the Notes. WACKER expects that certain descriptions in the Notes will be omitted.
Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors	Definition of Accounting Estimates	Feb. 12, 2021	Jan. 1, 2023		The term "accounting estimate" has been redefined. Under the new definition, accounting estimates are monetary amounts in financial statements that are subject to measurement uncertainty. A change in an accounting estimate may affect only the current period and does not result from the correction of prior-period errors. The changed definition does not result in any changes in WACKER's earnings, net assets or financial position.
Amendments to IAS 12 Income Taxes	Changes in Initial Recognition Exemption for an Asset or a Liability	May 7, 2021	Jan. 1, 2023		If a transaction gives rise to equal amounts of deductible and taxable temporary differences, the effect of deferred tax assets and deferred tax liabilities on profit or loss balance each other out. In this precise case, according to the new definition of initial recognition exemption, deferred tax assets and deferred tax liabilities are to be recognized. In practice this applies primarily to accounting for leases. In the past, WACKER already recognized deferred tax liabilities for right-of-use assets and deferred tax assets for lease liabilities, and therefore expects no material changes to result from the adjustments to IAS 12.

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	2021	2020
Fully consolidated subsidiaries (including parent company)	45	50
Germany	8	15
International	37	35
Associates and joint ventures	4	4
Germany	1	1
International	3	3
Non-consolidated affiliated companies	–	–
Germany	–	–
International	–	–
Total	49	54
Germany	9	16
International	40	38
Structured entities	1	–
Germany	1	–
International	–	–

A total of 49 companies were included in the consolidated financial statements as of December 31, 2021 (Dec. 31, 2020: 54 companies).

Compared with December 31, 2020, the scope of consolidation was expanded to include two further subsidiaries and one structured entity. Seven subsidiaries were merged into Wacker Chemie AG and these were removed from the scope of consolidation in 2021.

On February 2, 2021, Wacker Chemical Corp., Adrian, Michigan, USA acquired 100 percent of Wacker Biotech us Inc., San Diego, California, USA (formerly Genopis Inc.) in a share deal. The transaction closed on February 24, 2021. The company is a contract manufacturer that operates a specialized fermentation line for the manufacture and purification of pDNA, which can be used either directly for vaccines or as a starting material for innovative therapeutic agents, e.g. to manufacture messenger RNA (mRNA). This technology expands WACKER's existing biopharmaceutical portfolio in its CDMO business (contract development and manufacturing organization). The purchase price of US\$40.3 million comprised a cash payment of US\$35.6 million and contingent purchase price payments totaling US\$4.7 million, due within five years of the purchase.

This earn-out is determined on the basis of the acquired company's future EBITDA, which reflects the status of corporate planning at the time of acquisition. WACKER acquired assets in the amount of US\$24.5 million and liabilities of US\$13.6 million. Cash and cash equivalents accounted for US\$0.6 million of the acquired assets. The difference of US\$29.4 million between the purchase price and net assets mainly comprises intangible assets in the amount of US\$12.9 million, goodwill of US\$19.3 million and deferred tax liabilities of US\$2.8 million. The goodwill results mainly from non-recognizable future expectations of market developments and from synergy effects. The acquired technology complements WACKER's biopharmaceuticals portfolio. WACKER simultaneously concluded a strategic cooperation agreement for production of the VM202 drug developed by the seller. This drug is currently in clinical trials. The costs of the transaction were expensed and were insignificant. Since being acquired, the company has recorded sales of €1.2 million and recognized negative EBITDA of €8.3 million. If the acquisition had taken place at the start of the year, sales would also have amounted to €1.2 million and EBITDA would have been negative.

WACKER Chemicals Malaysia SDN. BHD. was established in Kuala Lumpur, Malaysia, on November 12, 2021.

With effect from July 26, 2021, a special fund with fixed investment conditions was set up for WACKER. WACKER invested €200 million in this fund in 2021. Due to the contractual structure of the fund, WACKER exercises control over the special-purpose entity, which is consequently consolidated as a structured entity.

In 2021, the following entities – shelf companies with no assets – were merged into Wacker Chemie AG:

- Wacker-Chemie Beteiligungsfinanzierungs-GmbH, Munich
- Wacker-Chemie Erste Venture GmbH, Munich
- Wacker-Chemie Zweite Venture GmbH, Munich
- Wacker-Chemie Sechste Venture GmbH, Munich
- Wacker-Chemie Siebte Venture GmbH, Munich
- Wacker Polysilicon Geschäftsführungs-GmbH, Munich
- Wacker-Chemie Zehnte Venture GmbH, Munich

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 (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 permanently reduced, an impairment is recognized in profit or loss.

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

Signed Acquisitions

Wacker Chemicals (China) Co., Ltd., Shanghai, China, signed an agreement on October 27, 2021, to purchase a 60-percent stake in specialty silane manufacturer sico Performance Material Co., Ltd, Jining, China. Transfer of the shares (closing) will not take place until after preparation of the consolidated financial statements. The necessary regulatory and antitrust approvals have already been granted.

The total purchase price for the acquisition comprises a fixed amount of around €120 million due upon closing of the deal.

Founded in 2013, sico Performance Material produces a range of organofunctional silanes (e.g. for the construction, automotive, semiconductor and electronics industries) at the Jining New Material Industrial Park in China's Shandong province. As one of China's leading suppliers in this field, the company has grown strongly in recent years, operates very profitably and generates a positive cash flow. In 2020, sico posted annual sales of €54 million.

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 the 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, 2021	Dec. 31, 2020	2021	2020
US dollar	USD	1.13	1.23	1.18	1.14
Chinese renminbi	CNY	7.20	8.05	7.63	7.87

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 Including Goodwill/Property, Plant and Equipment/Equity-Accounted Investments

The expected useful lives of intangible assets and of property, plant and equipment, together with their residual values and amortization/depreciation schedules, are based on past experience, planning 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, maintained CapEx and discount rates. These assumptions relate to a planning phase of at least 5 years and are based on past experience and on management's expectations of market trends. 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 the sales prices of WACKER products and in raw-material and energy prices will have the most significant impact on future cash flows, particularly at WACKER POLYSILICON due to its highly volatile selling prices. This could result in significant deviations from the figures posted, which may lead to additional impairment losses or reversals of impairment losses.

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.

Goodwill impairment tests are performed on the basis of cash-generating units, which largely correspond to WACKER's business units. Should impairment be required, the first step is to write off the existing goodwill in full, where necessary. If, subsequently, there is still a need for impairment, this is allocated to the other assets of the cash-generating units.

» 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, 2021, 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. Property valuations are used for measuring the plan assets, while market prices are the basis for loans, fixed-interest securities, stocks and funds. 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. The current environment of low interest rates has a particular 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 we 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 resulting from currently available tax strategies and future taxable income, and also to take additional positive and negative factors into account. In the case of 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 evidence that they can be realized.

Climate-Change Risks

WACKER has new, ambitious sustainable development goals for addressing climate-change risks up to 2030.

» See Goals and Strategies section of the combined management report.

The new targets to cut greenhouse gases are science-based because they are consistent with the goal of keeping the global rise in temperature below 1.5 degrees Celsius and therefore comply with the Paris Agreement. At present, WACKER sees a risk that the insufficiency of the EU Taxonomy for reporting sustainable products and activities will not enable it to disclose its products' importance for climate change mitigation. Under the EU Taxonomy Regulation, WACKER will not have any significant taxonomy-eligible activities to classify as sustainable in 2022. Even polysilicon, a vital raw material for producing solar modules, cannot be classified as sustainable, since polysilicon activities are not cited in the EU regulation. This could be a disadvantage for any investor financing decisions or government subsidies that are influenced by this key indicator. In its decisions regarding capital expenditures, WACKER assumes there will be enough reasonably-priced green energy available in the future. There is a risk that both the quantity and price of energy will be contrary to expectations. The non-financial statement contains the most recent sustainability figures.

Further details about estimates, accounting and valuation principles, and their effects on these consolidated financial statements are contained in the individual sections of the Notes.

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. A prerequisite is the customer's willingness to acknowledge and accept performance. Revenue recognition 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 BIOSOLUTIONS customers. Customer-specific discount accruals are also reported as contract liabilities. Discount accruals are contractually agreed discounts that are granted when certain thresholds are exceeded and that reduce sales in the current period. These accruals are estimated on the basis of past experience and usually settled in the following period at the latest.

Functional Costs

The cost of goods sold shows the cost of the products, merchandise and services sold. It includes not only directly attributable costs, such as material costs, personnel expenses and energy costs, but also indirect costs, such as depreciation/amortization, 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 amortized. 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. Impairment losses on goodwill are not reversed. The recoverable amount was determined in each case by applying the value in use. Planning approved by management and the related cash flows for the next five or more years were used where there were legitimate grounds for extending the detailed-planning period. For the time period thereafter, a terminal value was calculated by extrapolating the last detailed planning year as a perpetual annuity. Planning is based on experience, current business performance and management's best possible estimate of future development of specific influencing factors, such as raw-material prices and profit margins. Macroeconomic and industry-specific sources are consulted when making assumptions on market trends such as market growth.

Any cash-flow discounting required by impairment tests is done using the weighted post-tax cost of capital as determined by the capital asset pricing model. Components of the formula used in this model are the risk-free interest rate, the market risk premium and an adjustment of the credit risk based on the specific peer group (spread).

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. A residual value is determined in exceptional cases only. 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	10–40
Other buildings and similar rights	10–30
Technical equipment and machinery	6–12
Motor vehicles	4–10
Factory and office equipment	3–12

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, initially measured at cost and corresponding 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 and recognized at market value or at cost. 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, certain securities, 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 or amortized cost 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 an impairment 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 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 immaterial.

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.

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 plans 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	2021	2020
Revenues from contracts with customers		
Proceeds from deliveries of products and merchandise	6,101.9	4,590.7
Proceeds from other services	101.5	96.9
Total revenues from contracts with customers	6,203.4	4,687.6
Other revenues	4.1	4.6
Total revenues	6,207.5	4,692.2

WACKER recognizes the majority of its sales at specific delivery dates. 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 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 and advance payments. Here, too, revenues are recognized at a point in time.

In the case of customer-specific orders at 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. In its 2021 sales figures, the division recognized revenue of €16.6 million in reservation fees from a contract manufacturing agreement for Covid-19 vaccine production. No further reservation fees were recognized after termination of the agreement, since it was reassessed in accordance with IFRS 15.

No long-term payment terms exist that could qualify as a financing component. As a general rule, payment is due within 30 to 60 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 the “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 specific point in time, namely on delivery.

At WACKER, the sales revenue per segment corresponds to the Group’s different product categories. The differences between chemical products, and also between market and customer groups, are evident in the segments. The particular region to which WACKER supplies its products also has a major impact on revenue.

The following table shows the breakdown of revenues:

Breakdown of Revenues

€ million	WACKER SILICONES		WACKER POLYMERS		WACKER BIOSOLUTIONS		WACKER POLYSILICON		Other/ consolidation		Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Revenue by Region												
Europe	1,203.1	1,010.9	787.3	598.7	145.0	108.7	127.4	100.6	107.9	108.3	2,370.7	1,927.2
The Americas	426.5	411.8	365.0	322.2	88.8	88.8	15.4	9.6	–	0.5	895.7	832.9
Asia	808.9	671.7	405.7	298.0	49.9	40.5	1,372.1	674.9	0.5	2.6	2,637.1	1,687.7
Other regions	160.6	149.6	115.6	79.6	12.7	8.1	14.9	7.1	0.2	–	304.0	244.4
Total	2,599.1	2,244.0	1,673.6	1,298.5	296.4	246.1	1,529.8	792.2	108.6	111.4	6,207.5	4,692.2
Of which revenues outside the scope of IFRS 15	–	–	–	–	–	–	–	–	4.1	4.6	4.1	4.6
Time of revenue recognition												
Point in time	2,599.1	2,244.0	1,673.6	1,298.5	210.9	173.7	1,529.8	792.2	108.6	111.4	6,122.0	4,619.8
Over time	–	–	–	–	85.5	72.4	–	–	–	–	85.5	72.4
Total	2,599.1	2,244.0	1,673.6	1,298.5	296.4	246.1	1,529.8	792.2	108.6	111.4	6,207.5	4,692.2

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 the “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 from customers for polysilicon deliveries taking place over periods of up to 11 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, 2021	117.8	16.3	134.1
Revenues recognized as advance payments in prior period	-48.8	-	-48.8
Revenues less discounts	-	11.7	11.7
Reversals recognized in income	-15.0	-4.1	-19.1
Cash receipts (+)	216.6	-	216.6
Revenues recognized in 2020 from cash receipts (-)	-59.1	-	-59.1
Cash payments (-)	-	-11.3	-11.3
Exchange-rate differences	0.3	0.2	0.5
Change in the scope of consolidation	-	-	-
As of Dec. 31, 2021	211.8	12.8	224.6

€ 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

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, 2021	Dec. 31, 2020
Up to 2 years	2,514.2	990.9
Over 2 years to 3 years	962.5	495.2
Over 3 years to 4 years	770.0	405.0
Over 4 years to 5 years	722.3	163.4
Over 5 years	1,618.7	857.7
Total orders on hand	6,587.7	2,912.2

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

€ million	2021	2020
Cost of goods sold	-4,535.0	-3,822.3
Cost of goods sold includes the following reversals (+)/recognitions (-) of valuation allowances on inventories	99.5	-22.5
Other operating income		
Income from currency transactions	42.2	58.2
Income from reversal of provisions	6.6	6.2
Insurance compensation	1.2	0.9
Income from reversal of valuation allowances on trade receivables	2.0	0.2
Income from disposal of property, plant and equipment and financial assets	1.5	0.2
Income from incentives/grants	3.8	3.6
Income from the termination of long-term supply contracts	15.0	-
Other operating income	16.3	16.2
Total	88.6	85.5
Other operating expenses		
Losses from currency transactions	-37.5	-66.0
Losses from valuation allowances on trade receivables	-9.5	-6.6
Losses from disposal of assets	-4.7	-2.8
Losses from impairment of fixed assets	-0.7	-1.0
Losses from restructuring	-0.1	-48.9
Other operating expenses	-16.2	-17.6
Total	-68.7	-142.9

In the prior year, other operating expenses included €48.9 million in restructuring costs under the Shape the Future program, primarily to cover severance payments to employees in Germany.

At WACKER POLYSILICON, advance payments of €15.0 million received under expired long-term contracts were recognized under other operating income in profit or loss.

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

€ million	2021	2020
Result from investments in joint ventures and associates	62.4	34.9
Of which share of income from joint ventures	1.1	1.8
Of which share of income from associates	61.3	33.1
Other investment expenses/income	0.1	2.1
Total	62.5	37.0
Net interest income		
Interest income	6.2	8.1
Of which from financial instruments (FVOCI)	-	-
Of which from financial instruments (amortized cost)	6.2	7.8
Interest expenses	-22.5	-22.0
Of which from financing liabilities (excluding leases)	-19.2	-18.3
Total	-16.3	-13.9
Other financial result		
Interest effect of interest-bearing provisions/liabilities	-19.3	-26.9
Other financial expenses/income	-5.1	-4.1
Total	-24.4	-31.0

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, and the effects of measurement gains and other Group adjustments.

Borrowing costs of €0.8 million were capitalized in the reporting period, after €0.2 million a year earlier, resulting in a corresponding improvement in the net interest result. The average borrowing interest rate applied by the Group in the reporting year was 1.5 percent, compared with 1.5 percent a year earlier.

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 €19.0 million (versus €28.1 million in the prior year), and net interest expenses from the discounting of provisions and unwinding of discounted provisions in the amount of €0.3 million (versus €–1.2 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 13.0 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 28.8 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 9.0 percent to 31.0 percent.

Deferred taxes on undistributed profits of subsidiaries were recognized only where distribution is planned. The amount of €432.7 million is available for distribution, compared with €373.2 million in the prior year. WACKER did not recognize a deferred tax liability of €6.2 million (€5.4 million not recognized in the prior year) for the resultant temporary difference of €21.6 million (versus €18.7 million), as it is able to control the timing.

Income taxes include current tax expenses of €0.3 million from prior years (after €1.2 million a year earlier) and deferred tax income of €3.8 million from prior years (after €14.0 million).

Reconciliation of Actual Tax Result

€ million	2021	2020
Current taxes, Germany	-202.6	14.5
Current taxes, international	-52.9	-30.3
Current taxes	-255.5	-15.8
Deferred taxes, Germany	-34.7	5.6
Deferred taxes, international	24.4	-5.4
Deferred taxes	-10.3	0.2
Income taxes	-265.8	-15.6
Derivation of the effective tax rate		
Income before taxes	1,093.6	217.9
Income tax rate for Wacker Chemie AG (%)	28.8	28.8
Expected tax income/expenses	-315.0	-62.7
Tax rate divergences	15.2	18.2
Tax effect of non-deductible expenses	-22.9	-18.8
Tax effect of tax-free income	25.2	24.2
Taxes relating to other periods (current earnings)	3.5	12.8
Effects of loss carryforwards and temporary differences	9.9	1.6
Group profit from investments in joint ventures and associates	18.0	10.0
Other differences	0.3	-0.9
Total income tax	-265.8	-15.6
Effective tax rate (%)	24.3	7.1

As in the previous year, deferred tax expenses in the reporting year contained no previously unrecognized temporary differences and no deferred tax assets on loss carryforwards.

Allocation of Deferred Taxes

€ million	2021		2020	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	13.7	6.6	4.6	4.7
Property, plant and equipment	60.4	26.9	75.7	27.1
Financial assets	-	-	-	-
Right-of-use assets	-	30.6	-	25.0
Sundry assets	114.8	3.8	32.8	12.2
Provisions for pensions	357.0	0.5	624.1	-
Other provisions	38.2	-	44.2	0.5
Lease liabilities	31.6	-	26.5	0.8
Other liabilities	15.7	4.1	3.1	4.5
Loss carryforwards	1.1	-	25.5	-
Setting off for companies with group taxation	-14.5	-14.5	-2.0	-2.0
Total	618.0	58.0	834.5	72.8
Setoffs	-48.3	-48.3	-63.7	-63.7
Amount recorded in statement of financial position	569.7	9.7	770.8	9.1

The increase in deferred tax assets under other assets resulted largely from the payment of €250.0 million to trust assets covering pension obligations. As the assets covering the pension obligations are reported in the tax balance sheet as gross amounts, the resulting deferred tax assets of €72.0 million are counteracted by a decrease of the same amount in deferred tax assets for pension provisions.

The changes in deferred tax assets and liabilities of €10.3 million were recognized as expenses (versus income of €0.2 million a year earlier), while €-187.6 million (versus €136.5 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	2021	2020
Within 1 year	-	-
Within 2 years	-	-
Within 3 years	-	-
Within 4 years	-	-
Within 5 years or later	64.0	167.7
Total	64.0	167.7

The total loss carryforwards generated amounted to €64.0 million (versus €167.7 million in the previous year). Of this amount, €59.6 million (versus €78.2 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 €15.4 million (versus €19.6 million). Of the loss carryforwards that are not realizable for tax purposes, the amount of €42.8 million (versus €44.4 million) is unlimited as to time and amount.

In 2021, loss carryforwards of €19.7 million were utilized, for which no deferred tax assets had been previously recognized. This reduced actual tax expenses by €4.3 million.

As of December 31, 2021, no deferred tax assets were recognized for tax-deductible temporary differences in the amount of €662.8 million (versus €820.1 million). This year-over-year decrease was largely attributable to the smaller amount not recognized for temporary differences on the impairment of fixed assets.

Deferred tax assets in the amount of €569.7 million (versus €770.8 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
2021						
Balance as of Jan. 1, 2021	166.7	1,599.9	8,246.1	612.5	200.4	10,658.9
Additions	3.2	6.0	80.1	21.1	233.4	340.6
Disposals	-9.8	-0.5	-38.3	-18.5	-1.1	-58.4
Transfers	1.9	-0.1	91.6	8.2	-105.6	-5.9
Changes in the scope of consolidation	26.8	0.2	4.6	0.4	7.9	13.1
Exchange-rate differences	4.5	63.3	231.4	7.0	9.0	310.7
Gross carrying amount as of Dec. 31, 2021	193.3	1,668.8	8,615.5	630.7	344.0	11,259.0
Cumulative depreciation/amortization and impairments	-147.4	-1,070.7	-7,183.7	-537.7	-	-8,792.1
Changes in the scope of consolidation	-	-0.1	-2.0	-0.2	-	-2.3
Carrying amount as of Dec. 31, 2021	45.9	598.1	1,431.8	93.0	344.0	2,466.9
Depreciation/amortization	-7.4	-41.5	-289.5	-32.7	-	-363.7
Impairment losses	-	-	-0.7	-	-	-0.7
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

Intangible Assets

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 15 years.

Intangible assets includes goodwill in the amount of €17.1 million as of December 31, 2021 (initial consolidation: €16.0 million). Exchange rate differences increased goodwill by €1.1 million.

In 2021, WACKER BIOSOLUTIONS' BioPharma business unit recognized goodwill for the first time in the amount of €16.0 million, resulting from the acquisition of Wacker Biotech us Inc., San Diego, California (USA), formerly Genopis Inc. The BioPharma business unit also corresponds to the cash-generating unit to which the goodwill is attributable. The annual impairment test took place in the fourth quarter of 2021. The impairment test takes into account both the capital structure and the beta coefficient of the respective peer group as well as the average tax rate of each cash-generating unit. A weighted post-tax cost of capital of 8.3 percent was used for the impairment test. This corresponds to a weighted pre-tax cost of capital of 10.3 percent.

Major assumptions used in determining the value in use are market expectations and profit margins in the CDMO business for pharmaceutical applications. The dynamic market environment, in particular for the still novel technology of mRNA-based development of medicines, was the reason for extending the planning horizon to eight years before determining the terminal value, which was based on a growth rate of 1 percent.

The primary influencing factor for value in use is the EBITDA of the BioPharma business unit. Once the recoverable amounts of the cash-generating unit were determined, it became apparent that a deviation of 20 percent over the entire planning period, including the terminal value, would cause the carrying amount of the unit to slightly exceed its recoverable amounts.

Property, Plant and Equipment

In 2021, the acquisition costs for property, plant and equipment were reduced by investment grants totaling €5.1 million (compared with €3.1 million in the previous year).

In the reporting year, borrowing costs of €0.8 million (€0.2 million in the prior year) were capitalized as part of the acquisition or construction costs of qualifying assets. The average financing cost rate was 1.5 percent (1.5 percent a year earlier).

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
2021				
Balance as of Jan. 1, 2021	130.0	74.5	27.6	232.1
Additions	44.6	0.9	7.7	53.2
Disposals	-5.3	-	-5.1	-10.4
Transfers	-	-	-	-
Changes in the scope of consolidation	9.7	-	-	9.7
Exchange-rate differences	4.8	2.1	0.1	7.0
Gross carrying amount as of Dec. 31, 2021	183.8	77.5	30.3	291.6
Cumulative depreciation/amortization and impairments	-62.1	-70.6	-20.1	-152.8
Changes in the scope of consolidation	-4.0	-	-	-4.0
Carrying amount as of Dec. 31, 2021	121.7	6.9	10.2	138.8
Depreciation/amortization	-22.0	-2.2	-7.8	-32.0
Impairment losses	-	-	-	-
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	-	-	-	-

As regards land and buildings, WACKER rents properties, including office space and storage areas. In 2021, a rental agreement for a mixed-use building at Wacker Biotech us Inc. was extended early, resulting in an addition of €36.7 million. This category also includes Wacker Chemie AG's headquarters, which is rented from the company pension fund (Pensionskasse VVaG). Right-of-use assets primarily concern technical machinery and other equipment such as rented operating equipment and infrastructure facilities. Rented factory and office equipment includes vehicles and transportation equipment such as tanks and railcars.

Longer-term rental agreements exist, especially for property and operating equipment. Leases may contain extension and termination options. 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 and administration building, WACKER will recognize obligations of €6.1 million annually as of 2022, under leases that are yet to commence. As of 2023, this annual obligation will increase by €3.0 million for an additional warehouse. From 2024 onward, it will rise by a further €7.7 million per year for another office building.

Lease Liabilities

€ million	2021			2020		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Lease liabilities	153.7	127.6	26.1	122.8	98.0	24.8

In 2021, lease liabilities of €31.4 million were repaid (versus €31.8 million a year earlier) and lease-related interest of €3.4 million was paid (versus €3.7 million).

» See also Note 22 "Notes to the Statement of Cash Flows"

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

€ million	2021	2020
Sales		
Income from operating leases	–	–
Income from subleases	1.0	1.3
Income from sale and leaseback transactions	–	–
Functional costs		
Expenses from short-term leases	–6.3	–5.1
Expenses from leases of low-value assets	–4.1	–4.0
Expenses from variable lease payments	–	–
Other expenses from leases (incidental costs)	–	–
Amortization		
Amortization of right-of-use assets	–32.0	–31.5
Impairments of right-of-use assets	–	–
Financial result		
Interest expenses from lease liabilities	–3.4	–3.7
Income from foreign currency translation of lease liabilities	–	–
Expenses from foreign currency translation of lease liabilities	–	–

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As of the reporting date, future cash outflows totaled €171.9 million (versus €144.8 million a year earlier). The following schedule for lease payments applies:

€ million	2021	2020
Lease payment within 1 year	–29.8	–29.9
Lease payment between 1 and 5 years	–70.3	–65.2
Lease payment over more than 5 years	–71.8	–49.7
Total	–171.9	–144.8

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 €0.8 million (versus €1.2 million a year earlier) and as a finance lease in the amount of €1.1 million (versus €1.5 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.

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	2021	2020
Jan 1.	11.9	17.2
Additions	–	0.3
Disposals	–	–5.6
Gross carrying amount as of Dec. 31	11.9	11.9
Cumulative amortization	–9.6	–9.2
Carrying amount as of Dec. 31	2.3	2.7
Fair value	18.0	18.4
Rental income	1.5	1.7
Costs	–0.7	–0.8

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. On December 31, 2020, Siltronic was reclassified in accordance with IFRS 5. On December 31, 2021, the sale of the Siltronic stake was no longer considered to be highly probable and its recognition under IFRS 5 was discontinued.

» 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

	2021	2020
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 (€)	141.5	128.1
Market capitalization of shares (€ million)	1,308.9	1,184.9
Dividends received (€ million)	18.5	27.8

Summarized Financial Information on Siltronic AG and Its Subsidiaries' on a 100-Percent Basis

€ million	2021	2020
Current assets	994.8	824.3
Noncurrent assets excluding goodwill	1,676.0	1,379.3
Current liabilities	307.4	219.2
Noncurrent liabilities	886.1	900.7
Net assets (100%)	1,477.3	1,083.7
Less share of non-controlling interests	–137.0	–95.3
Group's share of net assets	413.3	304.8
Elimination of unrealized interim profits and losses	–	–0.1
Goodwill	245.7	245.7
Carrying amount of share in associate	659.0	550.4
Sales	1,405.4	1,207.1
Group net income for the year	201.8	108.1
Other comprehensive income	210.5	–149.5
Total	412.3	–41.4

¹ Consolidated financial statements of Siltronic AG in accordance with IFRS

Reconciliation of the Equity Carrying Amount

€ million	2021	2020
Carrying amount of equity-accounted investments		
At the beginning of the year	550.4	591.6
Pro rata net income for the year	62.1	33.4
Other changes recognized in profit or loss	0.1	-0.7
Change recognized in profit or loss	62.2	32.7
Dividends	-18.5	-27.8
Change in other equity	64.9	-46.1
At the end of the year	659.0	550.4

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	2021	2020
Carrying amount of equity-accounted investments		
At the beginning of the year	12.3	10.9
Pro rata net income for the year	1.1	1.8
Share of change in other equity	1.2	-0.4
Overall result of the companies	2.3	1.4
Dividends	-4.5	-
At the end of the year	10.1	12.3

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

€ million	2021	2020
Carrying amount of equity-accounted investments		
At the beginning of the year	36.8	37.9
Pro rata net income for the year	-0.9	0.3
Share of change in other equity	3.9	-1.4
Overall result of the companies	3.0	-1.1
Addition	-	-
At the end of the year	39.8	36.8

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.

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

€ million	2021		2020	
	Total	Attributable to WACKER	Total	Attributable to WACKER
Key Figures for Joint Ventures				
Net income for the year	2.2	1.1	3.6	1.8
Other comprehensive income	2.4	1.2	-0.8	-0.4
Total	4.6	2.3	2.8	1.4
Key Figures for Associates				
Net income for the year	197.1	61.2	109.3	33.7
Other comprehensive income	226.1	68.8	-155.1	-47.5
Total	423.2	130.0	-45.8	-13.8

09. Inventories

€ million	2021	2020
Raw materials and supplies	397.1	295.6
Unfinished and finished products, merchandise	776.8	581.8
Services not charged	3.1	2.1
Total	1,177.0	879.5
Of which recorded at net realizable value if lower	143.7	229.9

Cost of goods sold includes inventory expenses totaling €4.5 billion (after €3.8 billion a year earlier). Valuation allowances recognized as expenses decreased by €99.5 million in the reporting period. In the previous year, they had increased by €22.5 million.

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.

10. Financial and Non-Financial Assets/Receivables

€ million	2021			2020		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Trade receivables	824.8	–	824.8	627.0	–	627.0
Investments	12.2	12.2	–	11.9	11.9	–
Loans to associates	–	–	–	39.5	–	39.5
Receivables from associates	0.4	–	0.4	0.4	–	0.4
Loan and interest receivables	0.6	–	0.6	0.5	–	0.5
Derivative financial instruments	1.7	1.4	0.3	13.9	1.3	12.6
Receivables from suppliers	29.9	–	29.9	13.9	–	13.9
Deposits	3.9	3.4	0.5	2.7	2.6	0.1
Restricted cash and cash equivalents	–	–	–	–	–	–
Sundry assets	3.5	1.8	1.7	4.1	3.1	1.0
Other financial assets	52.2	18.8	33.4	86.9	18.9	68.0
Prepaid expenses	12.6	0.6	12.0	11.0	0.6	10.4
Plan assets	10.5	10.1	0.4	–	–	–
Advance payments made	15.3	3.5	11.8	9.8	3.0	6.8
Other tax receivables	83.0	2.3	80.7	49.1	1.3	47.8
Sundry assets	13.2	–	13.2	8.5	–	8.5
Other non-financial assets	134.6	16.5	118.1	78.4	4.9	73.5
Income tax receivables	29.9	–	29.9	40.5	–	40.5

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

Development of Past-Due Trade Receivables as of Dec. 31, 2021

€ million	Carrying amount	Loss allowance	Expected loss rate (%)
Not past due	740.8	-5.0	-0.67
Up to 30 days past due	59.9	-1.1	-1.84
31 to 60 days past due	12.5	-0.4	-3.20
61 to 90 days past due	23.2	-6.7	-28.88
Individually impaired receivables	1.7	-0.1	-5.88
Total as of Dec. 31, 2021	838.1	-13.3	-1.59

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

Loss allowances and past-due debts developed as follows:

Development of Loss Allowances for Trade Receivables

€ million	2021	2020
Opening balance of loss allowance as of Jan. 1 (as per IFRS 9)	8.6	3.3
Increase/decrease in loss allowances recognized in profit or loss	7.5	5.3
Receivables impaired as uncollectible	-	-
Change in scope of consolidation	-	-
Exchange-rate differences	-1.1	-
As of Dec. 31	15.0	8.6

The loss allowances relate exclusively to revenue from contracts with customers. There was no material credit risk as of December 31, 2021.

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.

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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.

11. Cash and Cash Equivalents/Securities/Liquidity

€ million	2021	2020
Securities and fixed-term deposits ¹	1,056.7	712.0
Of which current	738.2	712.0
Of which noncurrent	318.5	-
Cash and cash equivalents	926.6	626.0
Cash equivalents	469.7	330.5
Bank deposits, cash on hand	456.9	295.5
Total liquidity	1,983.3	1,338.0

¹ The securities mainly consist of a fund, fixed-interest securities and fixed-term deposits of various issuers, and are classified as FVPL, FVOCI and amortized cost.

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 31, 2020, WACKER reclassified its investment of €550.4 million in Siltronic AG, which was previously accounted for using the equity method, to assets held for sale. On December 9, 2020, Wacker Chemie AG had signed an agreement with GlobalWafers Co. Ltd., a Taiwanese competitor of Siltronic AG, to transfer WACKER’s 30.83-percent stake in Siltronic to GlobalWafers as part of the latter’s takeover bid for the company. Under the agreement, GlobalWafers Co. Ltd. was to acquire at least 50 percent of the shares in Siltronic AG. The offer period ended on February 10, 2021, with over 50 percent of Siltronic’s shareholders accepting the offer price of €145 per share.

On December 31, 2021, the stake in Siltronic AG was reclassified once again as an equity-accounted investment. On the reporting date, sale of the stake was no longer considered to be highly probable, given that 12 months had elapsed and the sale had not yet taken place, and it was assumed that it would be difficult to obtain approval from the German authorities. The takeover remained subject

to approval by the antitrust and foreign trade authorities. Germany’s federal government did not approve the deal by the deadline of January 31, 2022. As a result, both the agreement with Wacker Chemie AG and the takeover bid were void. The investment in Siltronic AG is reported in the “Other” segment. On December 31, 2021, the carrying amount of the equity-accounted investment in Siltronic was €659.0 million, which included the profit of €62.1 million generated by the investment. An amount of €64.9 million was recognized in other comprehensive income for exchange-rate differences and adjustments in provisions for pensions. The dividend payout of €18.5 million reduced the carrying amount of the equity-accounted investment. The prior-year recognition of the investment as assets held for sale under IFRS 5 was corrected and Siltronic AG was once again reclassified as an equity-accounted investment.

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	2021	2020
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	2021	2020
Profits	20.9	13.1
Losses	—	—
Net result attributable to non-controlling interests	20.9	13.1

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Non-controlling interests in equity comprised the following companies:

Non-Controlling Interests

€ million	2021	2020
Wacker Asahi Kasei Silicone Co. Ltd., Tokyo, Japan	8.2	7.8
Wacker Metroark Chemicals Pvt. Ltd., Parganas, India	49.4	39.9
Wacker Chemicals Fumed Silica (ZJG) Holding Co., Private Ltd., Singapore ¹	24.3	18.9
Total	81.9	66.6

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 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	2021	2020
Equity attributable to Wacker Chemie AG shareholders	3,018.5	1,625.2
Share of total capital (%)	67.8	53.6
Noncurrent financing liabilities	1,064.0	1,322.7
Current financing liabilities	372.8	82.8
Total	1,436.8	1,405.5
Share of total capital (%)	32.2	46.4
Total capital	4,455.3	3,030.7

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 partially funded by Pensionskasse der Wacker Chemie VVaG, by funds or by CTAs (contractual trust arrangements). 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.

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.

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 promised benefits include retirement, disability and surviving dependants' 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 must be taken into consideration when determining pension obligations. The pension payment is the same, regardless of both the employee's age

when paying contributions and the interest generated from assets. A new basic-pension model applies to employees who joined the pension fund after 2004 and before 2022. 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."

Retirement Benefit Obligations 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 – are entitled to receive a pension. The amount of that pension depends on the average salary earned during the period of employment with WACKER (career average plan). In the case of employees who joined the companies between 2005 and 2021, WACKER contributes a percentage of the portion of the salary exceeding the pension insurance contribution assessment ceiling. 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 m/nth of their present value, 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.

Since 2021, a contractual trust arrangement (CTA) has been in place to finance and secure part of the pension obligations arising out of direct commitments and deferred compensation (hitherto unfunded defined benefit obligations). To this end, €250 million was paid to the CTA.

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 to 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

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€ million	2021			2020		
	Germany	International	Total	Germany	International	Total
Present value of the at least partially financed defined benefit obligations	4,246.0	115.8	4,361.8	3,390.3	110.4	3,500.7
Fair value of plan assets	-2,450.2	-126.7	-2,576.9	-1,989.4	-104.3	-2,093.7
Funded status	1,795.8	-10.9	1,784.9	1,400.9	6.1	1,407.0
Present value of unfunded defined benefit obligations	4.9	12.8	17.7	1,293.6	12.8	1,306.4
Impact of asset ceiling	-	0.7	0.7	-	-	-
Net defined benefit liability	1,800.7	2.6	1,803.3	2,694.5	18.9	2,713.4
Surplus recognised as an asset	-	10.1	10.1	-	-	-
Provisions for pensions and similar obligations	1,800.7	12.7	1,813.4	2,694.5	18.9	2,713.4

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, 2020	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
Current service cost	119.3	–	119.3
Interest expense/(income)	35.4	-16.4	19.0
Past service cost	-4.3	–	-4.3
Remeasurements			
Gains (-)/losses (+) from plan assets without amounts already recognized in interest income	–	-156.7	-156.7
Gains (-)/losses (+) from changes in demographic assumptions	0.3	–	0.3
Gains (-)/losses (+) from changes in financial assumptions	-517.7	–	-517.7
Gains (-)/losses (+) from experience adjustments	-3.9	–	-3.9
Effect of asset ceiling	–	0.7	0.7
Effects of exchange-rate differences	9.0	-8.7	0.3
Contributions by			
Employer	–	-333.1	-333.1
Pension plan beneficiaries	22.9	-22.9	–
Transfers	–	–	–
Pension payments	-88.6	54.6	-34.0
As of Dec. 31, 2021	4,379.5	-2,576.2	1,803.3

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In 2021, the reconciliation item “Contributions by Employer” includes the payment of €250 million to the CTA. In the prior year, this item included a special payment of €73.4 million to Pensionskasse der Wacker Chemie VVaG.

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

%	2021	2020
Germany		
Discount rate	1.24	0.7
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	2.66	2.29
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 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, 2021		Dec. 31, 2020	
	Defined benefit obligation in € million	Change (%)	Defined benefit obligation in € million	Change (%)
Effect on defined benefit obligation				
Present value of pension obligations as of the reporting date	4,379.5		4,807.1	
Present value of pension obligations if				
the discount rate increases by 0.5 percentage points	3,966.2	-9.4	4,322.6	-10.1
the discount rate decreases by 0.5 percentage points	4,859.4	11.0	5,373.9	11.8
salaries increase by 0.5 percentage points	4,405.9	0.6	4,842.0	0.7
salaries decrease by 0.5 percentage points	4,355.2	-0.6	4,774.9	-0.7
future pension increases are 0.25 percentage points higher	4,513.1	3.1	4,962.1	3.2
future pension increases are 0.25 percentage points lower	4,252.5	-2.9	4,660.1	-3.1
life expectancy goes up by one year	4,544.1	3.8	4,999.1	4.0

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 around half of its assets in equity funds and fixed-income funds. The other half is invested directly in promissory notes (German Schuldscheine), real estate, real estate loans, private debt and private equity. The remainder is held as liquid assets. The investment strategy follows the investment guideline set down by the board of the pension fund.

As of December 31, 2021, the money paid to the contractual trust arrangement (CTA) was invested in a fund mainly comprising bonds and cash. Future investments will be made in accordance with the investment principles set out in the trust agreement and in the investment guidelines.

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, 2021			Dec. 31, 2020		
	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	–	407.2	407.2	–	376.9	376.9
Loans/ fixed-interest securities	799.9	317.3	1,117.2	710.6	298.7	1,009.3
Shares/funds	544.6	372.8	917.4	281.0	310.6	591.6
Cash and cash equivalents	–	135.1	135.1	–	115.9	115.9
Total	1,344.5	1,232.4	2,576.9	991.6	1,102.1	2,093.7

The WACKER Group was utilizing €95.0 million of the plan assets for its own purposes as of December 31, 2021, compared with €80.0 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.

Further 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 2021, benefits in the amount of €82.4 million (versus €77.4 million a year earlier) were paid under pension plans in Germany and €6.2 million (versus €6.4 million) under pension plans outside of Germany. WACKER anticipates that pension payments will reach approximately €94 million in the current fiscal year. Current employer contributions to plan assets will amount to around €10 million in 2022. The weighted duration of pension obligations as of December 31, 2021, was 21.3 years in Germany (versus 22.6 years a year earlier) and 12.5 years in the United States (versus 13.0 years).

Expected Pension Payments Due

€ million	Dec. 31, 2021	Dec. 31, 2020
Less than one year	–94.2	–88.9
One to two years	–101.2	–96.4
Two to three years	–105.6	–100.6
Three to four years	–111.4	–104.8
Four to five years	–115.7	–110.5

Composition of Pension Expenses

€ million	2021	2020
Current service cost from defined benefit plans	-119.3	-102.8
Past service cost	4.3	0.2
Net interest expense for defined benefit plans	-19.0	-28.1
Defined contribution plan expenses	-6.6	-6.7
Other pension expenses	-1.8	-3.2
Contributions to state pensions	-65.4	-58.8
Total	-207.8	-199.4

The retirement benefits of some Executive Board members were adjusted following restructuring of the Executive Board compensation system to comply with the amended requirements of Section 162 of the German Stock Corporation Act (necessitated by transposition of EU Shareholder Rights Directive II into German law ("ARUG II")). This resulted in income of €4.3 million from past service cost.

15. Other Provisions

€ million	2021			2020		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Personnel	123.1	116.5	6.6	117.1	110.4	6.7
Restructuring	4.3	3.3	1.0	48.0	2.4	45.6
Sales/purchasing	8.4	3.9	4.5	10.6	3.9	6.7
Environmental protection	85.2	85.2	–	84.1	84.1	–
Sundry	48.5	38.8	9.7	42.8	33.0	9.8
Other provisions	269.5	247.7	21.8	302.6	233.8	68.8

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 these were paid to employees in 2021. The remaining provision for the restructuring program is recognized mainly as noncurrent.

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 0.9 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, 2021	Utilization	Reversal	Addition	Interest effect	Exchange-rate differences	Changes in scope of consolidation/other ¹	Dec. 31, 2021
Personnel	117.1	-57.6	-0.5	87.4	0.1	0.5	-23.9	123.1
Restructuring	48.0	-39.9	-3.8	-	-	-	-	4.3
Sales/purchasing	10.6	-5.0	-1.9	4.4	-	0.3	-	8.4
Environmental protection	84.1	-2.8	-1.0	4.7	-	0.2	-	85.2
Sundry	42.8	-2.5	-9.0	17.1	-	0.2	-0.1	48.5
Other provisions	302.6	-107.8	-16.2	113.6	0.1	1.2	-24.0	269.5

¹ "Other" includes the change of €23.8 million in plan assets for phased-early-retirement commitments within provisions for personnel.

16. Financing Liabilities

€ million	2021			2020		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Liabilities to banks	1,092.1	754.1	338.0	1,104.5	1,053.4	51.1
Liabilities from lease obligations	153.7	127.6	26.1	122.8	98.0	24.8
Other financing liabilities	191.0	182.3	8.7	178.2	171.3	6.9
Financing liabilities	1,436.8	1,064.0	372.8	1,405.5	1,322.7	82.8

WACKER did not take out or repay any major loans in 2021.

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	2021				2020			
	Currency	Carrying amount € million	Of which with variable interest rates	Maturity	Currency	Carrying amount € million	Of which with variable interest rates	Maturity
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	EUR	226.0	66.5	2024
Promissory note (German Schuldschein)	EUR	74.0	5.5	2026	EUR	74.0	5.5	2026
Bank loan	KRW	16.3	16.3	2022	KRW	19.4	19.4	2021
Bank loan	EUR	100.0	–	2022	EUR	100.0	–	2022
Bank loan	EUR	100.0	–	2024	EUR	100.0	–	2024
Operating loan	BRL	15.9	15.9	2022	BRL	19.6	19.6	2021
Other		9.9	4.3			15.5	2.4	
Total		1,092.1	–			1,104.5	–	
Fair value		1,097.3	–			1,119.9	–	

Other financing liabilities comprise the following:

€ million	2021				2020			
	Currency	Carrying amount € million	Of which with variable interest rates	Maturity	Currency	Carrying amount € million	Of which with variable interest rates	Maturity
Private placement (1st installment)	USD	–	–	2018	USD	–	–	2018
Private placement (2nd installment)	USD	–	–	2020	USD	–	–	2020
Private placement (3rd installment)	USD	176.6	–	2023	USD	162.4	–	2023
Sundry other financing liabilities		14.4	–			15.8	–	
Total		191.0	–			178.2	–	
Fair value		193.6	–			184.5	–	

The carrying amounts of current financing liabilities correspond to the repayment amounts. With the exception of other lines of credit in the amount of €3.5 million (versus €7.6 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	2022	2023	2024	2025	2026 – 2027
Repayment	346.7	378.9	329.9	153.6	74.0
Interest	16.1	8.9	4.2	1.2	0.6

There are also unused long-term lines of credit amounting to €900 million (versus €690 million a year earlier), where all the conditions for utilization are met. In this context, an expiring syndicated loan of €200 million was replaced in December 2021 by a new syndicated loan agreement in the same amount. The new loan serves as a long-term line of credit and matures in 2026.

17. Financial and Non-Financial Liabilities

€ million	2021			2020		
	Total	Of which noncurrent	Of which current	Total	Of which noncurrent	Of which current
Trade payables	761.9	–	761.9	424.2	–	424.2
Derivative financial instruments	12.2	1.1	11.1	0.4	–	0.4
Sundry financial liabilities	31.7	12.3	19.4	15.2	0.1	15.1
Other financial liabilities	43.9	13.4	30.5	15.6	0.1	15.5
Payables relating to social security	8.1	–	8.1	9.7	–	9.7
Payroll liabilities	6.1	–	6.1	5.1	–	5.1
Variable compensation	175.4	–	175.4	84.0	–	84.0
Other personnel liabilities	27.4	–	27.4	21.6	–	21.6
Other tax liabilities	26.9	–	26.9	22.2	–	22.2
Deferred income	1.2	–	1.2	1.4	–	1.4
Sundry non-financial liabilities	42.5	–	42.5	17.4	1.9	15.5
Other non-financial liabilities	287.6	–	287.6	161.4	1.9	159.5
Advance payments received	211.8	56.3	155.5	117.8	71.1	46.7
Discount accruals	12.8	–	12.8	16.3	–	16.3
Contract liabilities	224.6	56.3	168.3	134.1	71.1	63.0
Income tax liabilities	186.5	117.5	69.0	92.8	80.3	12.5

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 €0.7 million, versus €1.5 million in the prior year. It is unlikely that the guarantees will be utilized.

Obligations from orders for planned investment projects (commitments) amounted to €155.5 million, after €103.0 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 around €173 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 €1.2 billion arising from material minimum-purchasing arrangements in the reporting period, after €1.1 billion the year before. The agreements have terms of between one and thirteen years.

The Group receives public grants and allowances for investing activities. These incentives are granted on condition that a certain number of jobs are created or maintained at certain sites. If these contractual commitments are not fulfilled, all or part of any funding received must be paid back. The 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.

€ million	2021	2020
Cost of materials	-2,674.4	-2,030.5
Personnel expenses		
Wages and salaries	-1,155.2	-1,040.7
Social benefits and expenses for aid	-196.5	-176.2
State pension contributions	65.4	58.8
Social security contributions	-131.1	-117.4
Pension expenses	-123.4	-112.5
Contributions to state pensions	-65.4	-58.8
Pension expenses	-188.8	-171.3
Total personnel expenses	-1,475.1	-1,329.4

The auditors' fee in the amount of €0.9 million (versus €0.8 million a year earlier) relates to KPMG AG Wirtschaftsprüfungsgesellschaft. Of this amount, €0.8 million (versus €0.6 million) was for financial statement auditing services and €0.1 million (versus €0.2 million) for other attestation services. The other attestation services included 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	2021	2020
Expenses for auditors' fees		
Audit services	0.8	0.6
Other attestation services	0.1	0.2
Tax consultation services	-	-
Other services	-	-
Total	0.9	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 2020 amounted to €99.4 million, or €2.00 per dividend-bearing share. No allocations to retained earnings were made at Wacker Chemie AG for fiscal 2020.

The Executive Board of Wacker Chemie AG has proposed a dividend of €8.00 per share for 2021. 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 €397,423,864.00 will be distributed to the 49,677,983 no-par-value shares not held by the company.

	2021	2020
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 (€)	8.00	2.00
Distribution per dividend-bearing common share (€)	8.00	2.00
Net result for the year attributable to Wacker Chemie AG shareholders (€ million)	806.9	189.2
Earnings due to common shares (€ million)	806.9	189.2
Earnings per common share (average, €)	16.24	3.81
Earnings per common share (as of reporting date, €)	16.24	3.81

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, 2021

€ million			Measurement pursuant to IFRS 9		Measurement pursuant to IFRS 16	
	Carrying amount Dec. 31, 2021	(Amortized) cost	Fair value through profit and loss	Fair value through other comprehensive income	(Amortized) cost	Fair value as of Dec. 31, 2021
Trade receivables	824.8	824.8	–	–	–	824.8
Other financial assets	52.2	38.3	12.5	1.4	–	52.2
Loans and other financial assets, measured at amortized cost	–	38.3	–	–	–	38.3
Investments in equity instruments (FVPL)	–	–	12.2	–	–	12.2
Derivatives that do not qualify for hedge accounting (FVPL)	–	–	0.3	–	–	0.3
Derivatives that qualify for hedge accounting ¹	–	–	–	1.4	–	1.4
Securities and fixed-term deposits	1,056.7	591.2	271.7	193.8	–	1,055.8
Securities and fixed-term deposits (measured at amortized cost)	–	591.2	–	–	–	590.3
Securities (FVPL)	–	–	271.7	–	–	271.7
Securities (FVOCI)	–	–	–	193.8	–	193.8
Cash and cash equivalents (measured at amortized cost)	926.6	926.6	–	–	–	926.6
Total financial assets	2,860.3	–	–	–	–	2,859.4
Financing liabilities	1,436.8	1,276.7	6.4	–	153.7	1,444.6
Financing liabilities (measured at amortized cost)	–	1,276.7	–	–	–	1,284.5
Financial liabilities measured at fair value	–	–	6.4	–	–	6.4
Lease liabilities	–	–	–	–	153.7	153.7
Trade payables (measured at amortized cost)	761.9	761.9	–	–	–	761.9
Other financial liabilities	43.9	31.7	5.4	6.8	–	43.9
Financial liabilities recognized at amortized cost	–	31.7	–	–	–	31.7
Derivatives that do not qualify for hedge accounting (FVPL)	–	–	5.4	–	–	5.4
Derivatives that qualify for hedge accounting ¹	–	–	–	6.8	–	6.8
Total financial liabilities	2,242.6	–	–	–	–	2,250.4

¹ Derivatives with on-balance sheet hedging relationship are not subject to IFRS 9, but are reported under this measurement in order to reconcile to the total of the statement of financial position.

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		
	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 ¹	–	–	–	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
Securities (FVOCI)	–	–	–	–	–	–
Cash and cash equivalents (measured at amortized cost)	626.0	626.0	–	–	–	626.0
Total financial assets	2,051.9	–	–	–	–	2,051.9
Financing liabilities	1,405.5	1,274.1	8.6	–	122.8	1,427.2
Financing liabilities (measured at amortized cost)	–	1,274.1	–	–	–	1,295.8
Lease liabilities	–	–	–	–	122.8	122.8
Financial liabilities measured at fair value	–	–	8.6	–	–	8.6
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 ¹	–	–	–	–	–	–
Total financial liabilities	1,845.3	–	–	–	–	1,867.0

¹ Derivatives with on-balance sheet hedging relationship are not subject to IFRS 9, but are reported under this measurement in order to reconcile to the total of the statement of financial position.

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 (FVPL). Securities measured at amortized cost are recognized using the effective interest method. Investments in equity instruments are 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 is calculated as 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. Liabilities measured at fair value chiefly comprise future payments in connection with business combinations. 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	2021	2020
Net gains/losses from financial instruments		
Financial assets measured at amortized cost	30.5	-14.1
Assets/liabilities measured at fair value through profit or loss (FVTPL)	-13.5	19.8
Assets measured at fair value through OCI (FVOCI)	-0.3	-
Financial liabilities measured at amortized cost	-38.0	-34.6
Total	-21.3	-28.9

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 on receivables.

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 €6.2 million, compared with the prior-year figure of €8.1 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 €22.1 million, versus €21.7 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, unquoted equity instruments and obligations arising out of business combinations.

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 2021

€ million	Fair value hierarchy			Total
	Level 1	Level 2	Level 3	
As of December 31, 2021				
Financial assets measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVPL)	–	0.3	–	0.3
Securities – trading (FVPL)	271.7	–	–	271.7
Investments in equity instruments – trading (FVPL)	–	–	12.2	12.2
Fair value through other comprehensive income				
Derivatives that qualify for hedge accounting	–	1.4	–	1.4
Securities (FVOCI)	193.8	–	–	193.8
Total	465.5	1.7	12.2	479.4
Financial assets measured at amortized cost				
Loans – held-to-collect	–	–	–	–
Securities and fixed-term deposits (measured at amortized cost)	590.3	–	–	590.3
Total	590.3	–	–	590.3
Financial liabilities measured at fair value				
Fair value through profit or loss				
Derivatives that do not qualify for hedge accounting (FVPL)	–	5.4	–	5.4
Financial liabilities (FVPL)	–	–	6.4	6.4
Fair value through other comprehensive income				
Derivatives that qualify for hedge accounting	–	6.8	–	6.8
Total	–	12.2	6.4	18.6
Financial liabilities measured at amortized cost				
Financial liabilities	–	1,284.5	–	1,284.5
Total	–	1,284.5	–	1,284.5

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
Securities (FVOCI)	–	–	–	–
Total	114.6	13.9	11.9	140.4
Financial assets measured at amortized cost				
Loans – held-to-collect	–	39.5	–	39.5
Securities and fixed-term deposits (measured at amortized cost)	597.4	–	–	597.4
Total	597.4	39.5	–	636.9
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
Financial liabilities (FVPL)	–	–	8.6	8.6
Fair value through other comprehensive income/through profit or loss				
Derivatives that qualify for hedge accounting	–	–	–	–
Total	–	0.4	8.6	9.0
Financial liabilities measured at amortized cost				
Financial liabilities	–	1,295.8	–	1,295.8
Total	–	1,295.8	–	1,295.8

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 2021.

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 recognized at amortized cost, except for financing liabilities arising out of business combinations, which are recognized at fair value. The fair values of all these items 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. Financing liabilities arising out of business combinations are calculated using the discounted cash flow method and taking the weighted average cost of capital into account. The corporate-planning EBITDA figures of the acquired company form the basis for calculation. As of December 31, 2020, the earn-out amounted to €8.6 million. In the reporting period, there was an addition of around €4 million and a reduction of €6.2 million in other operating income recognized in the statement of income. As of December 31, 2021, earn-outs totaled €6.4 million.

WACKER measured equity instruments not held for trading in the amount of €12.2 million (versus €11.9 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, 2021.

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, 2021. 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 €–37 million as of December 31, 2021, and of €–39 million as of December 31, 2020. The effect from items designated as cash flow hedges would have increased equity before income taxes by €15.3 million (versus €15.0 million a year earlier). The Group's currency exposure amounted to €375 million as of December 31, 2021 (versus €390 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, 2021. If the market interest rate on December 31, 2021, had been 100 basis points higher (December 31, 2020: higher), the interest result would have been €10.0 million higher (€9.0 million 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 2028. 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 2022 is about 43 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 2028 is roughly 10 percent.

In 2021, the cumulative income and expenses recognized directly in equity included a pre-tax result from cash flow hedges amounting to €-22.1 million (versus €13.2 million in

the prior year). During 2021, €4.2 million was reclassified to the statement of income, after €2.2 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, 2021	Dec. 31, 2020
Forward exchange contracts for strategic hedging, USD		
Carrying amount liability	-6.5	-
Carrying amount receivable	-	9.3
Nominal amount	-166.0	-137.4
Of which noncurrent	-17.7	-14.6
Change in value of hedged underlying transaction used to determine the effectiveness of hedging relationship	-6.5	9.3
Average hedging rate USD/€	1.18	1.16
Forward exchange contracts for strategic hedging, JPY		
Carrying amount liability	-0.2	-
Carrying amount receivable	1.4	1.0
Nominal amount	-70.9	-33.8
Of which noncurrent	-70.9	-33.8
Change in value of hedged underlying transaction used to determine the effectiveness of hedging relationship	1.2	1.0
Average hedging rate JPY/€	127.20	124.40

Foreign exchange derivatives mainly comprised forwards, options and swaps amounting to US\$398 million, JPY 10.5 billion, CNY 130 million and €65.0 million (versus US\$565 million, JPY 4.6 billion, CNY 180 million and €80 million a year earlier). Derivatives with a market value of €–10.9 million fall due in 2022.

€ million	Dec. 31, 2021		Dec. 31, 2020	
	Nominal values	Market values	Nominal values	Market values
Forward exchange contracts	404.8	–7.6	438.6	11.2
Foreign exchange swaps	65.0	–1.5	80.0	–0.3
Foreign exchange options	38.9	–0.5	105.6	2.6
Interest rate derivatives	140.0	–0.8	110.0	–
Other derivatives	–	–	2.8	–
Total	648.7	–10.4	737.0	13.5
Market values of derivative financial instruments used for hedge accounting	–	–5.3	–	10.3

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, 2021		Dec. 31, 2020	
	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	2.1	–12.6	15.6	–2.1
II				
Gross amounts of recognized financial assets/liabilities netted out in the statement of financial position	–0.4	0.4	–1.7	1.7
I + II				
Net amounts of financial assets/liabilities presented in the statement of financial position	1.7	–12.2	13.9	–0.4
Related amounts not netted out in the statement of financial position	–1.7	1.7	–0.1	0.1
Net amount	–	–10.5	13.8	–0.3

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 €0.8 million (versus €0.2 million in the prior year).

In the case of cash flow from investing activities, the actual outflows of funds are reported. That is why these

figures, too, cannot be reconciled 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 provided predominantly 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, 2021	Cash changes	Non-cash changes			Dec. 31, 2021
			Acquisitions/ disposals	Exchange- rate-related changes	Other	
Liabilities to banks	1,104.5	-12.1	-	0.2	-0.5	1,092.1
Lease obligations	122.8	-31.4	50.3	4.6	7.4	153.7
Other financing liabilities	178.2	-	-	14.4	-1.6	191.0
Financing liabilities	1,405.5	-43.5	50.3	19.2	5.3	1,436.8

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 adding back depreciation and amortization, impairments, and reversals of impairments to EBIT. 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	2021	2020
SILICONES	3.6	-0.2
POLYMERS	1.0	-0.2
BIOSOLUTIONS	-	-0.3
POLYSILICON	-114.7	17.4
Other	-6.7	7.5
Total	-116.8	24.2

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 €0.0 million (after €-1.5 million in the prior year), and to the "Other" segment, at €-11.1 million (after €8.1 million). A change of €-4.8 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	2021	2020
SILICONES	189.8	-122.8
POLYMERS	65.9	-42.6
BIOSOLUTIONS	13.2	-11.9
POLYSILICON	101.4	-72.1
Other	357.9	-231.8
Total	728.2	-481.2

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 €652.3 million in the USA (after €631.1 million in the previous year) and €634.1 million in China (after €513.2 million). Measured by the customer location in the USA and China, the respective sales generated were €651.1 million (after €638.6 million) and €1,680.2 million (versus €956.1 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	2021	2020
Operating result of reporting segments	1,135.1	262.3
Consolidation	-0.8	0.5
Group EBIT	1,134.3	262.8
Financial result	-40.7	-44.9
Income before taxes	1,093.6	217.9
Income taxes	-265.8	-15.6
Net income for the year	827.8	202.3

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	–	100.00	0
3 Wacker-Chemie Versicherungsvermittlung GmbH, Munich	Other	a), b)	26	–	100.00	0
4 Wacker Biotech GmbH, Jena	Biosolutions	a), b)	290	–	100.00	0
5 Wacker-Chemie Achte Venture GmbH, Munich	–	a), b)	2,753	–	100.00	0
6 Wacker-Chemie Elfte Venture GmbH, Munich	–		24	–	100.00	0
7 Wacker-Chemie Zwölfte Venture GmbH, Munich	–		24	–	100.00	0
Rest of Europe						
8 Wacker Chemicals Finance B.V., Zaanstad, Netherlands	Holding		2,136,993	17,712	100.00	0
9 Wacker Chemicals Ltd., Bracknell, United Kingdom	Sales and distribution		519	389	100.00	0
10 Wacker Chemie Italia S.r.l., Segrate, Italy	Sales and distribution		19,393	5,160	100.00	0
11 Wacker-Chemie Benelux B.V., Zaanstad, Netherlands	Sales and distribution		291	273	100.00	8
12 Wacker Chimie S.A.S., Lyon, France	Sales and distribution		2,372	2,090	100.00	0
13 Wacker-Kemi AB, Solna, Sweden	Sales and distribution		569	516	100.00	0
14 Wacker Química Ibérica, S.A., Barcelona, Spain	Sales and distribution		1,416	1,278	100.00	0
15 Wacker-Chemie, s.r.o., Plzeň, Czech Republic	Sales and distribution, Silicones		3,571	283	100.00	0
16 Wacker-Chemia Polska Sp. z o.o., Warsaw, Poland	Sales and distribution		1,330	1,207	100.00	0
17 Wacker Chemie Hungary Kft., Budapest, Hungary	Sales and distribution		498	328	100.00	0
18 LLC Wacker Chemie Rus, Moscow, Russia	Sales and distribution		917	300	100.00	0
19 Wacker Chemicals Norway AS, Holla, Hemne, Norway	Silicones		115,224	18,827	100.00	8
20 Wacker Kimya Tic. Ltd. Sti., Istanbul, Turkey	Sales and distribution		208	211	100.00	8
21 Wacker Biosolutions León, S.L.U., León, Spain	Biosolutions		15,990	899	100.00	8
22 Wacker Biotech B.V., Amsterdam, Netherlands	Biosolutions		10,145	–2,534	100.00	8

Serial number	Activity	Identifier*	Equity in € '000	Net income for the year in € '000	Capital share in %	Held by serial number ¹
The Americas						
23	Wacker Química do Brasil Ltda., Jandira - São Paulo, Brazil	Silicones, Polymers, Biosolutions	27,637	4,052	99.90 0.10	0 2
24	Wacker Mexicana S.A. de C.V., Mexico, D.F., Mexico	Sales and distribution	1,114	250	99.87 0.13	0 25
25	Wacker Chemical Corp., Adrian, Michigan, USA	Silicones, Polymers, Biosolutions	1,912,849	-18,495	100.00	8
26	Wacker Polysilicon North America, L.L.C., Cleveland, Tennessee, USA	Polysilicon	1,549,961	28,185	100.00	25
27	Wacker Colombia S.A.S., Bogotá, Colombia	Sales and distribution	172	29	100.00	8
28	Wacker Biotech US Inc., San Diego, California, USA	Biosolutions	23,780	-11,355	100.00	25
Asia						
29	Wacker Asahikasei Silicone Co. Ltd., Tokyo, Japan	Silicones	16,458	3,492	50.00 ³	0
30	Wacker Chemicals (South Asia) Pte. Ltd., Singapore	Sales and distribution	2,716	1,132	100.00	0
31	Wacker Chemicals Hong Kong Ltd., Hong Kong, China	Sales and distribution	2,805	298	100.00	0
32	Wacker Metroark Chemicals Pvt. Ltd., Kolkata, India	Silicones	100,815	32,901	100.00	0
33	Wacker Chemicals Korea Inc., Seongnam-si, South Korea	Silicones, Polymers	150,165	17,597	100.00	8
34	Wacker Chemicals East Asia Ltd., Tokyo, Japan	Sales and distribution	183	33	100.00	0
35	Wacker Chemicals Fumed Silica (Zhangjiagang) Holding Co. Private Ltd., Singapore	Holding	47,963	-23	100.00	0
36	Wacker Chemicals Fumed Silica (Zhangjiagang) Co., Ltd., Zhangjiagang, China	Silicones	49,565	6,170	100.00	35
37	Wacker Chemicals (Zhangjiagang) Co., Ltd., Zhangjiagang, China	Silicones	100,274	10,457	100.00	38
38	Wacker Chemicals (China) Co., Ltd., Shanghai, China	Sales and distribution	275,794	12,581	100.00	0
39	Wacker Chemicals (Nanjing) Co., Ltd., Nanjing, China	Polymers, Biosolutions	96,826	8,035	100.00	38
40	Wacker Chemie India Pvt. Ltd., Mumbai, India	Sales and distribution	5,995	2,437	99.00 1.00	15 0
41	PT. Wacker Chemicals Indonesia, Tangerang, Indonesia	Sales and distribution	279	36	99.00 1.00	8 2
42	Wacker Chemicals Malaysia SDN. BHD., Kuala Lumpur, Malaysia	Sales and distribution	-	-	100.00	8
Other Regions						
43	Wacker Chemicals Australia Pty. Ltd., Mulgrave, Melbourne, Australia	Sales and distribution	438	120	100.00	0
44	Wacker Chemicals Middle East FZE, Dubai, UAE	Sales and distribution	3,869	1,082	100.00	0
Joint Ventures/Associates						
45	Dow Siloxane (Zhangjiagang) Holding Co., Private Ltd., Singapore ²	Silicones	454,554	11,078	25.00	0
46	Wacker Dymatic Silicones (Shunde) Co., Ltd., Foshan, China	Silicones	20,828	2,829	50.00	38
47	Siltronic AG, Munich ²	Other	1,320,235	254,713	30.83	0
48	Nexeon Ltd., Abingdon, Oxfordshire, United Kingdom ⁴	Other	12,088	-13,693	23.91	0
Special Purpose Entity						
49	LBBW AM-WMM (special investment fund), Stuttgart ⁵	Other	198,028	-414	100.00	0

* Identifier:

a) Wacker Chemie AG has concluded profit and loss transfer agreements with these entities.

b) The shareholders have agreed not to disclose the financial statements of these entities (Section 264 (3) of the German Commercial Code).

¹ Serial number 0: Wacker Chemie AG² Only direct holdings in the relevant parent companies are listed; figures from consolidated financial statements in accordance with IFRS³ Control on the basis of potential voting rights⁴ Figures refer to the annual financial statements in accordance with UK GAAP for the period January 1 to December 31, 2020⁵ Shares in trust (Sondervermögen); figures in accordance with IFRS

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 current reporting year, the WACKER Group is 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.

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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.

Related Party Disclosures

€ million	2021				2020			
	Income	Expenses	Receivables	Liabilities	Income	Expenses	Receivables	Liabilities
Associates	157.5	165.1	12.7	43.1	150.4	112.3	14.4	8.9
Joint ventures	5.1	1.9	1.2	0.1	4.1	1.3	0.7	0.4

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, 2021, lease liabilities totaled €8.7 million (after €13.3 million a year earlier). Additional liabilities of €2.5 million (Dec. 31, 2020: €2.6 million) mainly related to outstanding contributions. In December 2021, Wacker Chemie AG made an advance payment of €45 million for future contributions to the pension fund.

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.

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. WACKER received payments for future services under long-term contracts.

Any guarantees or other security pledges are reported under Other Financial Obligations.

» See Note 18

In 2020, a loan to an associated company in the amount of €39.5 million was repaid in full.

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 2021	2,770,885	4,636,931	1,228,377	8,636,193
Executive Board compensation 2020	2,913,416	3,138,925	1,651,149	7,703,490
Pension commitments for active members of the Executive Board 2021				23,644,502
Pension commitments for active members of the Executive Board 2020				42,230,614
Compensation for former members of the Executive Board and their surviving dependents 2021				3,229,296
Compensation for former members of the Executive Board and their surviving dependents 2020				1,906,493
Pension commitments for former members of the Executive Board and their surviving dependents 2021				45,081,376
Pension commitments for former members of the Executive Board and their surviving dependents 2020				36,109,573
Supervisory Board compensation 2021	2,165,000	–	–	2,165,000
Supervisory Board compensation 2020	2,165,000	–	–	2,165,000

¹ The compensation for retirement benefits is based on service cost. Interest expense amounted to €204,017, after €459,144 in the prior year. The restructuring of pension commitments in 2021 resulted in non-recurring income from past service costs of €4,364,817.

Total compensation (payable in the short term) to active members of the Executive Board amounted to €7,407,816 (versus €6,052,341 in the prior year). As in the previous year, no members of the Executive Board or Supervisory Board were granted advances or loans in 2021. Detailed information on Executive Board compensation is given in the compensation report, which is published on Wacker Chemie AG's website.

» <https://wacker.com>

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.

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 had signed an agreement with GlobalWafers Co. Ltd., a Taiwanese

competitor of Siltronic AG, to transfer WACKER's 30.83-percent stake in Siltronic to GlobalWafers as part of the latter's takeover bid for the company. Under the agreement, GlobalWafers Co. Ltd. was to acquire at least 50 percent of the shares in Siltronic AG. The takeover remained subject to approval by the antitrust and foreign trade authorities. Germany's federal government failed to approve the deal by the deadline of January 31, 2022. As a result, both the agreement with Wacker Chemie AG and the takeover bid were void. The stake in Siltronic AG had already been reclassified as an equity-accounted investment as of December 31, 2021, given that a sale of the shares was no longer considered to be highly probable.

» See also Note 12 to the consolidated financial statements

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

Munich, March 3, 2022
Wacker Chemie AG

Christian Hartel Auguste Willems

Tobias Ohler Angela Wörl

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 management 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 functionality of the monitoring and management systems worldwide. 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 22, 2022. For information about the Supervisory Board's audit, please refer to its report.

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Assurance by the Legal Representatives in Accordance with Sections 297 (2) and 315 (1) 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 3, 2022

Wacker Chemie AG

Christian Hartel

Auguste Willems

Tobias Ohler

Angela Wörl

Reproduction of the Independent Auditor's Report

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 of 31 December 2021, 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 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of the Company and the Group of Wacker Chemie AG, Munich, for the financial year from 1 January to 31 December 2021.

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.

The combined management report contains cross-references marked as unaudited which are not required by law. In accordance with German legal requirements, we have not audited the content of these cross-references or the information to which they refer.

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 2021, and of its financial performance for the financial year from 1 January to 31 December 2021, 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. The combined management report contains cross-references marked as unaudited which are not required by law. Our opinion does not cover these cross-references or the information to which they refer.

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 2021. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Impairment testing of property, plant and equipment 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 estimates and assumptions" and "Accounting and valuation principles" in the notes to the consolidated financial statements. For information on sales market risks, please refer to the section "Risk report" in the combined management report.

The Financial Statement Risk

The carrying amount of the assets in the WACKER POLYSILICON segment amounted to €972 million as at the reporting date. In financial year 2019, an impairment loss of €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 2021. 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. WACKER POLYSILICON segment sales nearly doubled during the financial year. The reason for this development was the significantly higher price of polysilicon compared to the original forecast for financial 2021, especially in the field of polysilicon for the solar industry.

Despite this positive development, the risk of overcapacities and the associated further high price volatility are expected to persist in the future. The production plants in Burghausen, Nünchritz and Charleston, which form a cash-generating unit, are allocated to the 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 semiconductor 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 following components of the combined management report which have not been audited as to their content:

- the separate combined non-financial report of the Company and the Group referred to in the combined management report.
- the combined corporate governance statement for the Company and the Group referred to in the combined management report, and
- 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 above-mentioned 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.

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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 independence 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 (3a) 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 "ESEF_03_03_2022.zip" (SHA256-Hashwert: c3b64263dac2afe5258ecd8436485e62f4f9641e2af63a9ad5295f7e795e61b2) 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 file 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 2021 to 31 December 2021 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report" above.

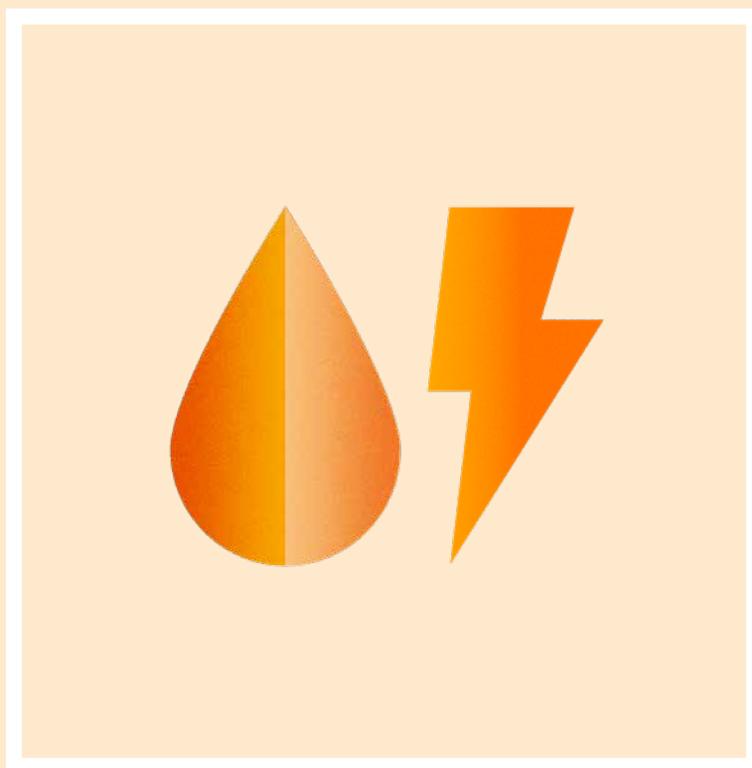
We conducted our assessment of the reproduction of the consolidated financial statements and the combined group management report contained in the above-mentioned electronic file, in accordance with Section 317 (3a) HGB and in compliance with the IDW Assurance Standard: Audit of Electronic Reproductions of Financial Statements and Management Reports prepared for Disclosure Purposes in Accordance with Section 317 (3a) HGB (IDW PS 410 (10.2021)). 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).

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Further Information

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Using green energy makes a big difference – two-thirds of processes at WACKER have already been electrified, one of the highest rates in the chemical industry.

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Further Information

Supervisory Board, Executive Board,
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and Non-Financial Report

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Supervisory Board

Dr. Peter-Alexander Wacker^{1,2,3}

Chairman

Bad Wiessee
Former President & CEO of
Wacker Chemie AG, businessman

Chairman of the Supervisory Board
Blue Elephant Energy AG

Chairman of the Administrative Council and Board of Trustees
ifo Institute – Leibniz-Institut für Wirtschaftsforschung an der
Universität München e.V.

Manfred Köppl^{1,2,3}

Deputy Chairman

Kirchdorf
Chairman of the Employee Council, Burghausen Plant
Wacker Chemie AG

Peter Áldozó*

Burghausen
Deputy Chairman of the Group Employee Council
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
(until November 10, 2021)

Member of the Supervisory Board
Aixtron SE

Chairman of the Advisory Council
ATHOS Service GmbH

Dr. Gregor Biebl

Munich
Director General
Bavarian State Chancellery

Matthias Biebl

Munich
Attorney

Markus Hautmann*

Schwandorf
District Chairman of the IG BCE labor union Altötting

Member of the Supervisory Board
Siltronic AG
SMP Deutschland GmbH
(until March 31, 2021)

Ingrid Heindl*

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

Eduard-Harald Klein¹

Neuötting
Chairman of the Group and General Employee Councils
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
Wacker Chemie AG

Deputy Chairwoman of the Employee Council, Burghausen Plant
Wacker Chemie AG

Beate Rohrig*

Unterhaching
District Chairman of the IG BCE labor union for Bavaria

Member of the Supervisory Board
Adidas AG

Dr. Birgit Schwab*

Burghausen
Head of Quality Management, WACKER BIOSOLUTIONS

Ann-Sophie Wacker

Munich
Attorney and in-house lawyer/investment manager

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
UBM Development AG, Austria

Prof. Ernst-Ludwig Winnacker

Munich
Professor emeritus of Biochemistry
LMU Munich

* 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)

Executive Board

Dr. Christian Hartel

President & CEO
(since May 12, 2021)

WACKER POLYSILICON
WACKER BIOSOLUTIONS
Corporate Development
Corporate Communications
Corporate Auditing
Legal
Compliance
Retirement Benefits

Chairman of the Supervisory Board
Pensionskasse der Wacker Chemie VVaG
(since May 13, 2021)

Dr. Rudolf Staudigl

President & CEO
(until May 12, 2021)

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
(until May 13, 2021)

Deputy Chairman of the Supervisory Board
Groz-Beckert KG

Member of the Supervisory Board
TÜV Süd AG

Dr. Tobias Ohler

Corporate Accounting and Tax
Corporate Controlling
Corporate Finance and Insurance
Investor Relations
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
Research and Development
Corporate Security
Environment, Health, Safety
Product Stewardship
Regions: Europe, Middle East

Angela Wörl
(since May 12, 2021)

WACKER POLYMERS
Human Resources (Personnel Director)
Executive Personnel
Intellectual Property
Corporate Engineering
Region: Asia

Member of the Supervisory Board
Pensionskasse der Wacker Chemie VVaG

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 2021 Issued by the Executive Board and Supervisory Board of Wacker Chemie AG

As every year, in 2021 the Executive Board and Supervisory Board conducted an in-depth review of the company's corporate governance and the recommendations of the Code. The Executive and Supervisory Boards resolved in December 2021 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 current – for a period of at least five years.

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

In December 2020, 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). Wacker Chemie AG has since complied with the recommendations of the German Corporate Governance Code (the “Code”) as amended on December 16, 2019, with the exceptions listed below under 2 a)–h), and will continue to comply with the recommendations in the same amended version of the Code, with the exceptions listed below under 2 a)–d) and f)–h).

2. Exceptions

a) Defining Concrete Objectives Regarding the Number of Independent Members of the Supervisory Board (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 in view of the ownership structure. 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 Code's new definition of “independent”, persons who have been members of a company's supervisory board for more than 12 years are no longer considered independent from the company and its executive board. More than half of the Board's shareholder representatives fulfill this criterion of “excessively long” membership in the Supervisory Board of Wacker Chemie AG – with one shareholder representative fulfilling this criterion merely 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 in 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-term membership in 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 all factors, we believe that nominating new chairs is unwarranted. For the sake of completeness, we point out 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 (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 have thus far refrained from following this recommendation because we have published the information prescribed by law and considered it to be sufficient. We did 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. That is why we declared our departure from this recommendation in the past. This will no longer be necessary in the future as we will comply with the recommendation: we will publish the résumés of our Supervisory Board members on the company's website.

f) Time Limit Placed on Applications for the Judicial Appointment of a Supervisory Board Member (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 (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 in any case be agreed with the majority shareholder, 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 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.

Compensation Report/Compensation System

The website <https://www.wacker.com/cms/en-gb/about-wacker/investor-relations/corporate-governance/overview.html> provides public access to the current compensation system for members of the Executive Board pursuant to Section 87a (1) and (2) sentence 1 of the German Stock Corporation Act that was approved by the shareholders' meeting on May 12, 2021, as well as the resolution adopted at the same shareholders' meeting pursuant to Section 113 (3) of the German Stock Corporation Act regarding compensation of members of the Executive Board. The same website provides access to the compensation report for 2021 and the auditor's report pursuant to Section 162 of the German Stock Corporation Act.

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. Our Investor Relations team maintains close contact with analysts and other capital-market players. We inform investors and analysts about the current and future development of business in telephone conferences held whenever a quarterly report is published. These conference calls are held in English, are open to the public and can be streamed after the event on our website. We regularly attend conferences and roadshows, and actively maintain contact with institutional investors. With the support of the Investor Relations team, the Executive Board took part in a total of 16 virtual conferences in 2021. We also regularly organize Capital Market Days and held two online in 2021. 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 by 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) – and the annual financial statements of Wacker Chemie AG are also available on our 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. In the periods between meetings as well, 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 the 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, interviews 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. WACKER has had a woman on its Executive Board since May 2021, when it appointed Ms. Angela Wörl as Personnel Director.

The goal of the diversity strategy described above is to give the Executive Board an optimal composition so as 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.

D.1 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
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

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 2021, 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 additional services they perform, and regularly reviews the quality of the auditing activities. Above and beyond that, the Audit Committee monitors 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 2021 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 2021, the committee comprised Dr. Peter-Alexander Wacker (as chairman), Manfred Köppl, Franz-Josef Kortüm and Eduard-Harald Klein.

190 **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, 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 takes 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 takes the diversity strategy described above into account when making its nomination proposals to the Annual Shareholders' Meeting. 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. 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 2021, 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 2021 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, Turkey, Czechia, Hungary, Spain, the Netherlands 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.

In 2021, a groupwide whistleblower system was put in place that enables employees and third parties to inform the company – anonymously if desired – of any breaches of compliance.

Principles of Corporate Ethics

- Beside our vision and goals, our ethical principles form the third pillar of WACKER's corporate policy guidelines. Embedded in five separate codes, these principles 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-gb/about-wacker/wacker-at-a-glance/corporate-strategy-and-policy-guidelines/ethical-principles.html>.

Responsible Care® and the Global Compact – Integral Parts of Corporate Management

Two voluntary global initiatives form the basis for sustainable corporate management at WACKER: the chemical industry's Responsible Care® initiative and the UN's Global Compact. WACKER has been an active member of the Responsible Care® initiative since 1991. Program participants undertake to continually improve health, safety and environmental performance on a voluntary basis – even in the absence of statutory requirements. The same is true of the UN's Global Compact initiative. We observe the Global Compact's ten principles, which address social and environmental standards, anticorruption and the protection of human rights. We also expect our suppliers to respect the principles of the Global Compact, and we evaluate them on this point in our risk assessments.

New and Ambitious Sustainability Goals

In 2021, WACKER set itself new ambitious goals to achieve climate neutrality by 2045 and presented these to investors and analysts at a virtual Capital Market Day. By 2030, WACKER plans to lower its absolute greenhouse gas emissions by 50 percent relative to 2020. The new goals to cut greenhouse gases are science-based because they are consistent with the goal of keeping the global rise in temperature below 1.5 degrees Celsius and therefore comply with the Paris Agreement. Since 2021, WACKER has also been a member of the UN's initiative to achieve climate neutrality – the Race To Zero. Under this initiative, WACKER has made a voluntary commitment to the 1.5 degrees Celsius target and undertaken to issue transparent progress reports on its course toward climate neutrality by 2045.

WACKER's other sustainability goals for the period until 2030 are:

- All WACKER products to meet defined sustainability criteria (in accordance with WACKER Sustainable Solutions)
- 15-percent reduction in specific energy consumption
- 100 percent of WACKER's key suppliers to meet defined sustainability standards
- 25-percent reduction in absolute upstream greenhouse gas emissions
- 15-percent reduction in specific water withdrawal
- Annual number of chemical accidents with missed workdays and process-related accidents to be cut to zero

All these activities are being overseen by Corporate Sustainability, which forms part of Corporate Development and thus reports directly to the CEO.

Engagement with Society

Companies can be commercially successful only if they enjoy the public'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.

» <https://www.wacker.com/cms/en-gb/about-wacker/investor-relations/corporate-governance/directors-dealings.html>

Dealing Responsibly with Opportunities and Risks

Dealing responsibly with risks is an important part of good corporate governance. WACKER has in place an opportunity and risk management system to regularly identify and monitor material risks and opportunities. Its objective is to recognize risks at an early stage and minimize them through systematic risk management. The Executive Board informs

the Supervisory Board regularly about existing risks and 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 (D&O insurance) that covers the activities of the Executive Board and Supervisory Board members. 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 ("First Executive Positions Act") 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.

In accordance with the Second Executive Positions Act, which entered into force on August 12, 2021, the Executive Board of Wacker Chemie AG must, to the extent that it comprises more than three members, include at least one woman and one man (Section 76 (3a) AktG). In addition, the new law stipulates that, in the future, the Supervisory Board must provide justification if a target value of zero is set for female representation on the Executive Board, and the Executive Board must provide justification if a target value of zero is set for female representation at the two management levels below the Executive Board.

With the appointment of Ms. Angela Wörl on May 12, 2021, the four-person Executive Board of Wacker Chemie AG has a female member, meaning the company has already met the new statutory requirement pursuant to Section 76 (3a) AktG. Consequently, the target value set by the Supervisory Board in 2017 on the basis of the then prevailing legal situation (zero; deadline for implementation: June 30, 2022) is thus obsolete. 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. Given the current status, we expect to reach these two targets before the deadline.

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 the Group Business Fundamentals section of the combined management report.

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 2021. The Report was reviewed by the Supervisory Board of Wacker Chemie AG and, on its behalf, by KPMG AG Wirtschaftsprüfungsgesellschaft in compliance with the International Standard on Assurance Engagements – ISAE 3000 (Revised): "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" to obtain limited assurance 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. At WACKER, we aim to balance economic, ecological and social factors in everything we do. The fact that we have made sustainability one of our strategic goals emphasizes its importance. The goal is "focusing even more strongly on sustainability."

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.

Responsible Care® and UN Global Compact

Our actions are guided by voluntary global initiatives, which form the basis for sustainable corporate management at WACKER. As a participant in the chemical industry's Responsible Care® initiative, we are obligated to continually improve health, safety and environmental performance on a voluntary basis – irrespective of statutory requirements. As a member of the United Nations Global Compact, we support the goals of 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. Every year we submit our progress report, which can be viewed on the UN Global Compact website.

» <https://www.unglobalcompact.org/what-is-gc/participants/10060-Wacker-Chemie-AG>

» We also publish the current progress report on the WACKER website at: <https://www.wacker.com/cms/en-de/about-wacker/sustainability/global-compact/detail.html>

Principles of Corporate Ethics

Next to our vision and goals, our ethical principles form the third pillar of WACKER's corporate policy guidelines. These principles include our Code of Sustainability, which is supplemented by a body of regulations and directives. They are mandatory for all employees worldwide. The content of these is described in the Declaration on Corporate Management.

» Our ethical principles can 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 is involved in issues of corporate social responsibility (CSR), in particular the managers in charge of Environment, Health and Safety (EHS), Product Safety (PS) and Sustainability. 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 also participates in its Sustainability Board and Chemie³ initiative.

» <https://www.chemiehoch3.de/> (in German only)

By joining the UN-backed Race to Zero campaign, WACKER is voluntarily committing to the 1.5 degrees Celsius threshold for global warming. We also agree to issue transparent progress reports on our road toward net zero emissions.

» <https://racetozero.unfccc.int>

We have joined the Renewable Carbon Initiative (RCI), which aims to advance defossilization of the chemical industry. The initiative promotes technologies and supply chains aimed at replacing all fossil-based carbon with renewable carbon derived from alternative resources such as biomass, CO₂ and recycling.

» <https://renewable-carbon-initiative.com>

As a corporate sponsor of the KlimaWirtschaft foundation (formerly Foundation 2°), we firmly acknowledge the importance of business's role in climate protection. The initiative offers potential solutions in its report called "Corporate Climate Protection in Practice" (available in German only). In this document, WACKER states that more than 60 percent of its processes have been electrified, which means that production can be switched over to renewable energy once enough electricity is generated from sources such as the sun or wind.

» <https://klimawirtschaft.org/en/corporate-climate-protection>

We have joined Hydrogen Alliance Bavaria as its 200th member. The Alliance is a platform for networking, knowledge-sharing and representation of interests, and its aim is to place hydrogen technologies, especially green hydrogen, at the forefront of the energy transition. The Alliance is coordinated by the Center Hydrogen.Bavaria (H2.B).

» <https://h2.bayern/>

Sustainability Strategy

With SustainaBalance®, WACKER has set itself a sustainability strategy with goals. 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.

The WACKER Sustainable Solutions program helps us anchor sustainability-related aspects even more firmly in our business models, for example, in order to

- promote and expand existing sustainable business fields,
- establish new sustainable business areas, and
- identify and minimize sustainability-related risks to our business portfolio at an early stage.

WACKER's Sustainable Development Goals

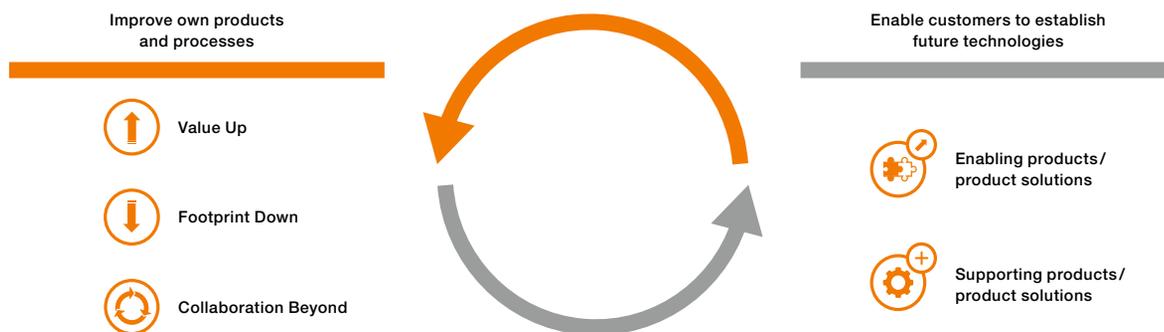
Global warming due to rising emissions of carbon dioxide is a socially and economically relevant environmental factor. We want to be at the vanguard in the fight against climate change and reduce both our own emissions as a company and those of our products. That is why we have set new sustainable development goals, with the aim of achieving climate neutrality by 2045.

The new goals are much more ambitious than the previous ones. For example, by 2030, WACKER now intends to cut its absolute greenhouse gas emissions by 50 percent relative to 2020. Previously, we had undertaken to reduce specific greenhouse gas emissions – i.e. per metric ton of product – to 33 percent of 2012 levels.

WACKER is striving to ensure that its entire product portfolio meets defined sustainability criteria by 2030 (previously: 90 percent). We also expect all our key suppliers to meet defined sustainability standards by 2030 (previously: 90 percent). During the same period, we aim to reduce by 25 percent the emissions from the upstream products we use. WACKER has set a new specific target for water withdrawal, aiming to achieve a reduction of 15 percent by 2030.

The new targets to cut greenhouse gases are science-based because they are consistent with the goal of keeping the global rise in temperature below 1.5 degrees Celsius and therefore comply with the Paris Agreement.

D.2 Sustainability Has Two Dimensions for WACKER



D.3 WACKER's Sustainable Development Goals

Region	SustainaBalance®	Sustainable Development Goals (SDGs)	Environmental Indicator ²	Base Year	Target Year	Target ¹ (%)
Group	Value Up, Footprint Down, Collaboration Beyond	4, 7, 8, 9, 12, 13, 17	Climate-neutral	2020	2045	-100
Group	Footprint Down	12, 13	Specific energy consumption (per metric ton of net production)	2020	2030	-15
Group	Footprint Down	12, 13	Absolute greenhouse gas emissions ³	2020	2030	-50
Group	Footprint Down	12	Specific dust emissions (per metric ton of gross production)	2012	2022	-50
Group	Footprint Down	12	Specific emissions of relevant VOCs (volatile organic compounds; per metric ton of gross production)	2012	2022	-25
Group	Footprint Down	12	Specific NOx emissions (nitrogen oxides; per metric ton of gross production)	2012	2022	-25
Group	Footprint Down	12	Specific water withdrawal (per metric ton of net production)	2020	2030	-15
Group	Value Up	7, 9, 12, 13	Products meeting defined sustainability criteria ⁴	2020	2030	100
Group	Collaboration Beyond	4, 8, 17	Key suppliers ⁵ meeting sustainability criteria	2020	2030	100
Group	Collaboration Beyond	13, 17	Absolute greenhouse gas emissions in upstream supply chains ⁶	2020	2030	-25
Group	Footprint Down	8.12	Chemical accidents with missed workdays ⁷	recurring annual target	recurring annual target	0
Group	Footprint Down	8.12	Severe process safety incidents ^{7,8}	recurring annual target	recurring annual target	0

¹ The target-related success level is not based on linear progression, but on individual projects that are implemented at different stages throughout the target period. This is why no intermediate results are reported.

² Gross production corresponds to the total production (target products and byproducts) of a plant or site. Net production is calculated by subtracting the internal reuse of products from the gross production of a plant or site.

³ Scope 1 and 2 in accordance with GHG Protocol, science-based target

⁴ In accordance with WACKER Sustainable Solutions

⁵ Corresponds to 90 percent of the volume procured

⁶ In accordance with Scope 3 GHG emissions from purchased goods and services (cat. 1) and fuel- and energy-related emissions (cat. 3), science-based target

⁷ Absolute target

⁸ In accordance with WACKER Process Safety Incidents, Severity Level 1 and 2

To foster even greater awareness for sustainability among our employees, WACKER held a fourth groupwide Sustainability Week in the reporting year, this time focused on the circular economy. An ideas competition on the circular economy generated 32 suggestions; five of these have since been implemented.

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.

We had conducted an 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 product safety, production plant safety, compliance, transport and storage safety, and occupational safety and employee health. According to the survey results, the issues that impact WACKER the most are competitiveness and value trends, safety of production plants, and occupational safety and employee health.

D.4 Relevant Issues Pursuant to the CSR Directive Implementation Act

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

EU Taxonomy Regulation

The European Union's action plan on financing sustainable growth defines a classification system for sustainable economic activities termed the "EU taxonomy." This system helps companies subject to disclosure obligations to identify environmentally sustainable activities and standardize their reporting. The taxonomy plays a role in the transition to sustainable finance in that it strengthens the reliability and comparability of sustainability information. EU delegated acts governing fiduciary duties, and investment and insurance advice are designed to advance the European Green Deal's goal of achieving climate neutrality by 2050 by directing capital toward sustainable activities. In its Taxonomy Regulation, the EU has defined six environmental objectives that companies can use to determine which of their economic activities are classified as sustainable. This report addresses the first two objectives that are obligatory for disclosure in the reporting year, namely climate change mitigation and climate change adaptation.

CSR Directive Implementation Act

In this non-financial report, we cover issues that are deemed material under Germany's CSR Directive Implementation Act (CSR-RUG). This includes 13 (out of 30) key points in our stakeholder survey.

We report on the issue of human rights in line with the statutory requirements. This non-financial report contains additional topics that are not defined as material by the CSR-RUG, but which do help ensure continuity of content. In 2021, we published our Sustainability Report for 2019 and 2020.

» <https://reports.wacker.com/2020/sustainability-report/>

In the reporting year 2021, we are making these additional disclosures as required by the EU Taxonomy Regulation in line with our obligation to prepare and publish a non-financial statement as defined in Sections 289b and 315b of the German Commercial Code (HGB). In accordance with Article 8 (2) of the EU Taxonomy Regulation, we are disclosing the proportion of sales, capital expenditure and operating expenditure classified as environmentally sustainable. For the 2021 reporting year, the EU has simplified disclosure requirements by limiting them to the taxonomy-eligible and taxonomy-non-eligible proportions of business activities with respect to sales, capital expenditure and operating expenditure. The technical screening criteria pursuant to Article 1 (5) of Commission Delegated Regulation (EU) 2021/2178 were not taken into consideration when determining taxonomy eligibility of economic activities. We are not yet required to assess the conformity of these activities with the taxonomy. The economic activities we have identified fall under the environmental objective “climate change mitigation.” We have not identified economic activities in the fiscal year that can be categorized under the environmental objective category “climate change adaptation.” We have taken announcements made up to and including January 31, 2022 into account.

Proportion of Taxonomy-Eligible Sales

We have assessed the sales figures in the statement of income for each Group company to determine whether they were generated with taxonomy-eligible economic activities under Annex I (substantial contribution to climate change mitigation) and Annex II (substantial contribution to climate change adaptation) of Commission Delegated Regulation (EU) 2021/2139 supplementing the Taxonomy Regulation. We conducted an analysis and have categorized the proportion of sales that relate to taxonomy-eligible economic activities.

The sales KPI required by the EU Taxonomy is the proportion of sales from taxonomy-eligible economic activities to total sales in 2021. Our analyses indicate that the taxonomy-eligible sales under Annex I of Commission Delegated Regulation (EU) 2021/2139 can be attributed in particular to the category “Manufacture of plastics in primary form.” WACKER POLYMERS falls under this category with end products based on polyvinyl acetate, as well as WACKER SILICONES with silicone-based products, such as silicone sealants and pyrogenic silica for use in insulation material. WACKER BIOSOLUTIONS is taxonomy-eligible with its sales of polyvinyl-acetate-based gum base for chewing gum. A small proportion of sales is attributable to the area of wastewater treatment at the Burghausen site in connection with the economic activities of construction, expansion and operation of wastewater collection and treatment systems.

Given the current status of the regulatory process, a large proportion of upstream products is not yet covered by the EU taxonomy. Therefore, in this reporting period, the EU Taxonomy Regulation does not cover WACKER POLYSILICON, whose core product is hyperpure polysilicon – a fundamental building block for semiconductor applications and highly efficient solar cells for photovoltaics.

Taxonomy-Eligible Investments

Taxonomy-eligible investments come from capital expenditure (CapEx) associated with an eligible economic activity or a credible plan for expanding or achieving an environmentally sustainable economic activity, or otherwise relating to the purchase of products and services from an eligible economic activity. To determine the CapEx KPI, we calculate the ratio of taxonomy-eligible investments to the sum of additions to property, plant and equipment and intangible assets during the fiscal year before depreciation, amortization and remeasurements, including additions from business combinations.

We identify taxonomy-eligible investments using project descriptions of the additions to property, plant and equipment and intangible assets. The majority of taxonomy-eligible investments at WACKER are attributable to WACKER POLYMERS and WACKER SILICONES. A small portion is attributable to our energy generation from hydropower at the Burghausen site and the wastewater treatment plants at the Burghausen and Nünchritz sites.

Taxonomy-Eligible Operating Expenditure

Taxonomy-eligible operating expenditure comprises the cost of maintenance and repairs of property, plant and equipment (including building refurbishment measures), non-capitalized R&D costs, and short-term leases for taxonomy-eligible economic activities. We calculate the OpEx KPI as the ratio of taxonomy-eligible operating expenditure to total direct, non-capitalized costs, which comprise those related to R&D, building refurbishment measures, short-term leases, maintenance and repair, and direct expenditures related to the maintenance of property, plant and equipment to retain functionality. Taxonomy-eligible operating expenditure is largely attributable to maintenance costs at WACKER POLYMERS and WACKER SILICONES, and to R&D expenditures.

The methodology for the classification of economic activities follows Annex I of Commission Delegated Regulation (EU) 2021/2139 supplementing Regulation (EU) 2020/852, with the aid of the NACE codes cited. Because we identified only those eligible activities falling under the environmental objective of “climate change mitigation,” there is no duplication of eligible sales, CapEx and OpEx in

other environmental objectives. In addition, because these KPIs relate to consolidated figures, there is no duplication across various economic activities.

Future Conformity of Taxonomy-Eligible Economic Activities

Given the current status of the regulatory process, we assume that, for further reporting in the context of the EU taxonomy, only a very small proportion of activities eligible for classification will actually qualify as sustainable. One reason is the requirement that renewable raw materials be used, which are very difficult to access due to the lack of large volumes on the global market and the technology to implement them.

D.5 Relevant Proportions in Accordance with the EU Taxonomy Regulation

%	Sales ⁴	Capital Expenditure ⁵	Operating Expenditure
Proportion of economic activities that are eligible under the EU taxonomy ^{1,2,3}	68.8	53.6	52.9
Proportion of economic activities that are not eligible under the EU taxonomy ^{1,2,3}	31.2	46.4	47.1

¹ Proportion of environmentally sustainable activities in 2021 in accordance with Regulation (EU) 2020/852 of the European Parliament and of the Council pursuant to Article 19a and Article 29a of Directive 2013/34/EU.

² In accordance with Article 10 (2) of Delegated Regulation (EU) 2021/2178 supplementing Regulation (EU) 2020/852, the reporting obligation in 2022 is limited to the proportion of eligible economic activities and non-eligible activities for the key performance indicators sales, capital expenditure and operating expenditure.

³ KPIs calculated in accordance with IFRS. Segmented products allow allocation by economic activity. The figures used to calculate the KPIs sales, capital expenditure (CapEx) and operating expenditure (OpEx) are based on those reported in the consolidated financial statements.

⁴ Total sales in accordance with the consolidated statement of income.

⁵ Total capital expenditure in accordance with segment data by division

Integrated Management System

We control operational processes via our integrated management system (IMS). This system stipulates uniform standards throughout the Group for 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). In the reporting year, our site in Istanbul was audited against ISO 9001 for the first time. We align our processes and standards relating to occupational health and safety with the international ISO 45001 standard. Our site in Jincheon, South Korea, has been certified according to the new ISO 45001:2018 standard.

Our Group certification program helps us adhere to statutory and customer-related requirements and to our own corporate standards at all of our sites. Almost every

one of our production sites is included in the ISO 9001 (quality) and ISO 14001 (environment) Group certificates. Not included are Wacker Biotech B.V., Amsterdam (Netherlands), Wacker Biotech us Inc., San Diego, California (USA), Wacker Biotech GmbH, Halle and Jena (Germany), and Wacker Dymatic Silicones (Shunde) Co., Ltd., Foshan City and Zhangjiagang City (China). There are corresponding single certificates for the Tsukuba site of Wacker Asahi Kasei Silicone Co., Ltd., Tokyo, Japan.

Aside from these traditional management standards, WACKER has many individual products certified to the FSSC 22000 (food) and EFFCI GMP (cosmetics) standards. The silicone-producing facilities at the Burghausen and Nünchritz sites in Germany, as well as those at Jandira (Brazil), Zhangjiagang (China) and Tsukuba (Japan), have been certified to the ISO 22716 standard for the cosmetics industry. The ISO 22716 certification valid for the Kolkata site in India through September 2022 will be replaced by the higher-level cosmetics standard EFFCI in 2022. Certifying our products according to Islamic and Jewish dietary standards (halal and kosher) is becoming increasingly relevant.

Our biomass-balance products are certified to the REDcert² standard for the chemical industry. These products make a key contribution to sustainability since we manufacture them without fossil raw materials. We have joined the Roundtable on Sustainable Palm Oil (RSPO), which promotes sustainable palm-oil cultivation methods. In the reporting year, the Munich headquarters and the Burghausen and Nünchritz sites were audited against the revised RSPO Supply Chain Certification Standard (scc Standard 2020). All certificates are available for download at:

► www.wacker.com/certificates

► For more details about resource-efficient 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.

Environmental Concerns

By setting quantifiable environmental targets, we aim to lower the environmental impact of our production activities. The goals regarding CO₂ emissions and energy consumption apply groupwide.

Environmental Protection

WACKER attaches particular importance to integrated environmental protection, which begins right in 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.6 Environmental Protection Costs

€ million	2021	2020	2019
Operating costs	81.5	83.0	82.9
Capital expenditures	1.9	0.8	5.1

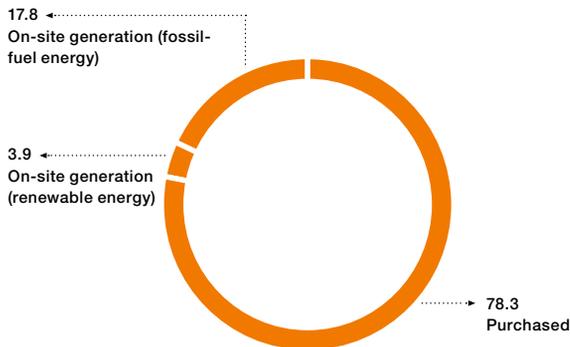
In 2021, WACKER invested €1.9 million in environmental protection (2020: €0.8 million). Environmental operating costs amounted to €81.5 million (2020: €83.0 million). Three-quarters of these capital expenditures flowed into the Nünchritz plant, where we built a flue-gas denitrification (“DeNOx”) facility in the waste-incineration plant to further reduce emissions of nitrogen oxides. At the Zhangjiagang site in China, we have invested in the wastewater treatment facilities.

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 and at the same time contribute to climate protection.

D.7 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. This means that, by 2030, specific energy consumption will have been reduced by a further 15 percent from what it was in 2020.

D.8 Group Energy Consumption

GWh	2021	2020	2019
Electricity consumption	5,974	5,879	5,818
Of which			
From on-site generation (fossil)	1,063	988	802
From on-site generation (renewable)	232	249	273
Energy consumption ¹	6,010	5,744	5,217
Of which			
Natural gas ^{2,3}	4,424	4,188	4,029
Solid fuels ⁴	1,297	1,295	947
Heat supplied by third parties ⁵	289	261	241

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. We are also continually optimizing our electricity consumption.

We rely primarily on natural gas to generate electricity. At Burghausen, our largest site, we produce steam and electricity in the CHP plant using a cogeneration system. The site’s efficient, low-emission gas turbine can generate up to 137 MW of electricity. Combining this plant with the output of Burghausen’s hydroelectric plant and that of smaller generation facilities, we produced 1,295 GWh of electricity in the reporting year (2020: 1,236 GWh). That means we generated roughly 22 percent of our total electricity needs ourselves. With an output of 50 megawatts, our hydropower generator is one of Germany’s biggest industrial hydroelectric power plants.

Explanation of Environmental Indicators

As of this year, we report not only on carbon dioxide levels, but also on the CO₂ equivalents of other climate-impacting emissions, together as total CO₂e. Direct CO₂e

emissions from fossil sources (Scope 1 of the Greenhouse Gas Protocol) rose by 7 percent year over year. Half of this increase was due to the inclusion of additional climate-impacting gases in our reporting. The rise in carbon dioxide emissions resulted also from higher utilization rates at the CHP plant in Burghausen and from increased production at the Holla site.

Nitrogen oxide emissions rose by 5 percent groupwide, due to higher production output at the Holla site as well as ongoing measures to optimize operation of the furnace there.

Emissions of non-methane volatile organic compounds (NMVOCs) increased by 27 percent. This rise was attributable to the inclusion of additional climate-impacting gases in our reporting and to WACKER POLYMERS' markedly higher production output at the Burghausen and Ulsan (South Korea) sites.

Despite increased production output, total dust emissions declined by 14 percent. The key driver of this positive trend was stable operations at the Holla site following conclusion of the expansion work there. Technical adjustments to

the filters of the facility for dispersible polymer powders enabled us to lower dust emissions at the Burghausen site.

Water withdrawal rose by 3 percent year over year, due to significantly higher production output and thus increased demand for cooling water at the Burghausen site. In terms of Carbon Disclosure Project (CDP) reporting limits, we report all water volumes we extract from nature, including those we redirect to third parties.

The amount of waste fell by 9 percent across the Group as a whole, mainly due to reduced waste generation at the Holla site after completion of the expansion project there. Changes in production-related waste streams reflect trends in plant utilization.

As we redesign our organization by means of our Shape the Future efficiency program, we have given the regions added powers to implement environmental, health and safety requirements on their own authority. This eliminates the site audits previously conducted at the corporate level. Reporting is virtual.

D.9 Environmental Indicators

	2021	2020	2019
Air			
CO ₂ -equivalent emissions ¹			
Direct (kt) ²	1,346	1,264	1,133
Of which fossil (kt)	1,290	1,208	1,102
Of which biogenic (kt)	56	56	31
Indirect (location-based) (kt) ³	1,390	1,579	1,754
Indirect (market-based) (kt) ⁴	2,357	–	–
Nitrogen oxides (NO _x) (t)	2,440	2,330	1,790
Non-methane volatile organic compounds (NMVOCs) (t) ⁵	1,130	890	800
Dust (t)	428	500	354
Water			
Water withdrawal (thousand m ³) ⁶	273,107	264,077	218,270
Utilized by WACKER	237,479	229,930	–
Supplied to third parties	35,628	34,147	–

¹ CO₂e (CO₂-equivalent) emissions are collected in accordance with the Greenhouse Gas Protocol of the World Resources Institute and World Business Council for Sustainable Development, "A Corporate Accounting and Reporting Standard" (GHG Protocol). Scope 1: direct CO₂ emissions. Starting in 2021, we will also report the amounts of CO₂e generated from greenhouse gases. Scope 2: indirect emissions from energy purchases (converted into CO₂ equivalents for purchased electricity, steam and heat). From 2021 onwards, conversion for electricity will be based on both International Energy Agency emission factors (location-based) and electricity supplier emission factors (market-based). Conversion for steam and heat will be based on emission factors from the GEMIS database for both location-based and market-based.

² CO₂ emissions are split into fossil and biogenic sources according to the GHG Protocol. The latter arise from the combustion or decomposition of renewable raw materials.

³ The electricity volumes supplied by the affiliated company Alzwerke GmbH are included in the indirect CO₂ emissions in a climate-neutral manner due to the fact that they are not fed into the public electricity grid. From 2020 onwards, indirect CO₂ emissions also include contributions from methane and nitrous oxide, converted into CO₂ equivalents. The conversion of purchased electricity volumes into CO₂ emissions is carried out using emission factors from the International Energy Agency (location-based).

⁴ The electricity volumes supplied by the affiliated company Alzwerke GmbH are included in the indirect CO₂ emissions in a climate-neutral manner due to the fact that they are not fed into the public electricity grid. The conversion of purchased electricity quantities into CO₂ emissions is carried out using emission factors based on the emission factors of the electricity suppliers (market-based). If the emission factors for the respective suppliers are not available, the residual mix emission factors are used (Europe) or the emission factors of the International Energy Agency (rest of the world).

⁵ Starting in 2021, we also report the amounts of NMVOCs that are generated by greenhouse gases.

⁶ From 2020 onward, water withdrawal also includes volumes of water transferred to third parties.

D.10 Waste

Waste by type, in metric tons (t)	2021 ¹	2020 ²	2019 ²
Total	181,628	200,160	175,870
Recycled	150,702	111,280	111,500
Hazardous	64,310	–	–
Non-hazardous	86,392	–	–
Disposed of	30,926	88,880	64,370
Hazardous	11,414	–	–
Non-hazardous	19,512	–	–
Hazardous	75,724	96,350	71,390
Non-hazardous	105,904	103,810	104,480
Recycled waste in the reporting year, in metric tons (t)	Onsite	Offsite	Total
Hazardous waste			
Preparation for reuse	–	385	385
Recycling	6,465	2,998	9,463
Other recovery processes	21,728	32,734	54,462
Total	28,193	36,117	64,310
Non-hazardous waste			
Preparation for reuse	90	10,876	10,966
Recycling	–	15,165	15,165
Other recovery processes	3,602	56,659	60,261
Total	3,692	82,700	86,392
Waste disposed of in the reporting year, in metric tons (t)	Onsite	Offsite	Total
Hazardous waste			
Incineration (with energy recovery)	488	1,314	1,802
Incineration (without energy recovery)	4,399	3,106	7,505
Landfill	1,490	313	1,803
Other waste-treatment processes	–	304	304
Total	6,377	5,037	11,414
Non-hazardous waste			
Incineration (with energy recovery)	1	340	341
Incineration (without energy recovery)	3,290	403	3,693
Landfill	5,478	9,617	15,095
Other waste-treatment processes	–	383	383
Total	8,769	10,743	19,512

¹ First-time reporting of waste treatment in accordance with GRI 306 in 2021

² The data for 2020 and 2019 was not reported on the basis of GRI 306.

Greenhouse Gas Emissions

Monitoring the Group's carbon footprint is a tool from which we derive measures to mitigate climate change. 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 supply chain (Scope 3) that are generated, for example, by procured raw materials, product transport or waste disposal. We report our indirect emissions from purchased energy (Scope 2) in accordance with both the

location-based method (using the national energy mix) and the market-based method (using the supplier-specific energy mix). We disclose Scope 3 data in the Sustainability Report, as well as in the Climate Change Report of the cdp.

Despite slightly higher energy requirements due to increased output at smaller sites, Scope 2 emissions decreased overall as a result of changed conversion factors. Minor changes in indirect CO₂ emissions at other sites are offset at the Group level. Calculated using the

location-based method, the electricity-to-CO₂-emissions conversion factors for power generation fell further in almost all production regions (source: CO₂ Emissions from Fuel Combustion, 2021 Edition, International Energy Agency). This effect more than compensated for the marginal increase in Scope 2 emissions (calculated using the location-based method) that was attributable to the higher quantity of purchased energy. The result was an overall reduction in Scope 2 emissions.

In 2021, 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 2021, we scored a B in the CDP's Water Security Report (prior year: B; 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>

In the WWF Water Risk Filter, we achieved a maximum Global Basin Risk score of 3.8 (on a scale from 1 for no risk to 5 for high risk) at our production sites. The increase from 3.6 in the prior year was due to our reassessment of the Jandira site in Brazil and to first-time inclusion of the Panagarh site in India. The Global Basin Risk indicators prescribed by the WWF Water Risk Filter comprise several risk types (physical, regulatory, reputational) subdivided into twelve risk categories. We take the information from this classification into account when analyzing water usage at our sites.

» <https://waterriskfilter.panda.org/>

The water stewardship program we have developed and are rolling out groupwide takes a systematic approach to water management at our production sites. It commits our business divisions and sites to the responsible use of water resources throughout the entire supply chain.

Product Assessment Based on Sustainability Criteria

The goal of achieving climate neutrality by 2045 is playing an ever more 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 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 – Product-Application-Region Combinations – 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. By the end of the reporting year, we had conducted 363 PARC reviews covering 91 percent of the WACKER Group's sales in 2020. 90 percent of the products meet the minimum sustainability criteria. For the remaining 10 percent we have defined measures to either improve sustainability performance or replace the product.

» <https://www.wbcscd.org/Programs/Circular-Economy/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. When preparing 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. That includes raw-material consumption and emissions from supply and disposal processes, from power generation and from transport.

— 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, in which the Bavarian state government and Bavaria's industry associations have placed an emphasis on mitigating climate change.

» <https://www.umweltpakt.bayern.de> (in German only)

WACKER is working with the Altötting Landscape Conservation Association in a community project to promote biodiversity at the Burghausen site. WACKER and seven other ChemDelta Bavaria companies have joined forces within the Verein Naturnahe Alz (Natural Alz Association), an organization supporting the Bavarian authorities in renaturalizing the Alz river and enhancing its ecosystem in the long term.

» <https://www.naturnahe-alz.de/> (in German only)

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 a groupwide safety management system in place 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. Here we analyze the energy used in the processes (e.g. pressure and heat), as well as the effects that individual errors might have on a chain of events that could culminate in the release of a substance or lead to an accident. Using the results of our analyses, we specify safety measures to prevent the occurrence of undesirable incidents.

D.11 Safety- and Environment-Related Incidents – WACKER Group

	2021	2020	2019
Groupwide number of environment- and safety-related incidents ¹	39	29	29
Groupwide environment- and safety-related incidents per million hours worked ²	1.7	1.3	1.3

¹ Pursuant to the criteria of the European Chemical Industry Council (Cefic Guidance for Reporting on the ICCA Globally Harmonized Process Safety Metric, latest version: 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 record any incident relevant to safety, health or the environment in the IT system we use for sustainability reporting (SPIRIT), evaluate these reports and track the measures taken. We use incident reports that provide learning experience for the Group's other divisions or sites to inform corporate units with similar hazard potential.

We assess the safety of pipe bridges in an ongoing program where we prevent the occurrence of hazards such as corrosion damage. WACKER attaches particular importance to providing its safety experts with ongoing training. We enhance our experts' knowledge of explosion-damage protection by holding interactive online training courses. We conduct regular training sessions, for example, on plant safety and explosion-damage protection. We give special recognition to facilities that operate for sustained periods of time without a reportable accident.

Safe Transport of Hazardous Materials

WACKER ensures that its products are transported safely, especially where hazardous materials 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. We ensure their consistent application by means of a groupwide directive on transport safety for chemicals and hazardous goods. An essential element of transport safety is our personnel, who are highly trained both in handling hazardous goods and securing loads.

We have similarly high expectations of our logistics providers – above and beyond statutory regulations, we impose additional requirements in our contracts and comprehensive requirements profiles. If our contractors should deviate from our requirements, we issue formal complaints and demand corrective action to ensure a continuous improvement process.

For products with a high hazard potential, we use packaging and tanks that meet the most demanding quality standards. Some 185,000 tons of hazardous materials were shipped from our German sites in the reporting year. We recorded not a single reportable transport incident involving hazardous goods.

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.

D.12 Transport Incidents in Germany

Number of Accidents	2021	2020	2019
Road	1	–	3
Rail	–	2	2
Sea	–	2	–
Inland waterways	–	–	–
Air	–	–	–

Product Safety

WACKER provides information on the safe use of its products. When manufacturing them, we work continually to prevent or reduce the use of any substances harmful to human health and the environment. WACKER complies with the chemical legislation applicable in the countries to which it ships its products. The expense involved in following and implementing such legislation worldwide is continually rising.

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, which imposes stringent requirements on the manufacturers, importers and users of chemical products, involves the collection of extensive data. All substances present in the European market 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 764 new or revised registration dossiers to the European Chemicals Agency (ECHA) from the start of registrations in 2008 through to the end of 2021. 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 2021.

WACKER is in close contact with its suppliers on 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. In the spirit of the UN's Sustainable Development Goal 8 – Decent Work and Economic Growth – WACKER 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 to provide secure jobs, good employee benefits and a work culture that facilitates a positive work-life balance. It is important to us that all our employees 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 2021, 172 young people began apprenticeships at WACKER or at the Burghausen Vocational Training Center (BBIW). With a total of 600 apprentices, WACKER had 4 percent fewer apprentices than the year before (2020: 625). At 5.7 percent, the percentage of trainees (ratio of trainees to Group employees in Germany) was almost on par with the previous year (2020: 5.8 percent; 2021 figures as of December 31; those in the 2020 non-financial statement as of September 30). In 2021, WACKER kept on virtually all suitably qualified apprentices – 148 graduates – hiring 78 on permanent contracts and 70 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 running through March 31, 2026, provides that suitable apprentices receive a job offer after graduating.

In 2021, WACKER invested a total of €5.4 million in Germany in personnel-development activities and advanced training (2020: €4.9 million).

Workplace Safety

Workplace and plant safety are vitally important for WACKER. That is why WACKER defines safety targets together with its executives (upper and middle management) in Germany during its annual target-setting process. Systematic workplace safety includes regular evaluation of hazards and work-area monitoring. We align our processes and standards relating to occupational health and safety with the international ISO 45001 standard. The site in Jincheon, South Korea, is certified to the new ISO 45001:2018 standard.

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.

The trend in workplace accidents is one of the most important non-financial performance indicators. We have set a goal of keeping the number of workplace accidents to below 2.0 per million hours worked groupwide. The accident rate rose in the reporting year to 3.6 workplace accidents per million hours worked, compared with 3.0 in the previous year. This adverse trend was caused by workplace accidents at European sites, and we have launched a safety initiative to counteract it.

D.13 Workplace Accidents Involving Permanent Staff and Temporary Workers

	2021	2020	2019
Accident rate across Group: Accidents ¹ per million hours worked	3.6	3.0	3.4
Europe ²	4.7	3.3	3.7
The Americas	1.3	3.2	2.9
Asia	0.6	1.3	1.9
Accident rate across Group: Reportable accidents ³ per million hours worked	2.4	2.2	1.9
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 additionally aim to identify and avoid unsafe behavior through our WACKER Safety Plus (WSP) program, in which we build on elements of successful safety strategies at sites with particularly low accident rates – such as safety patrols, emergency drills and holding discussions with the workforce.

In the reporting year, we focused on measures to stop the spread of coronavirus. In this context, our priorities were safeguarding employee health and ensuring supply continuity for our customers by keeping up production. 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 have proved successful; the number of Group employees infected by the coronavirus was low. We distributed coronavirus self-swabbing tests to employees at the German sites and informed them about the advantages of vaccination. A vaccination center was set up at the Burghausen site, where site physicians can vaccinate employees against coronavirus in accordance with the respective statutory and official regulations. Health Services organized vaccine campaigns at the Nünchritz and Munich sites as well.

When it comes to employee health protection, we take account of the digital transformation of work processes and the higher number of employees working remotely from home or elsewhere. Employees in Germany, for example, are invited to participate in virtual fitness classes for both relaxation and for strengthening the musculoskeletal system.

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. Every complaint is investigated, and the reporting party is informed of the outcome. Cases of potential discrimination are recorded quarterly in the compliance report submitted to the Executive Board. They are also mentioned 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 has equivalent status or whose health is impaired. To provide targeted support in line with local laws and regulations, 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.14 Diversity, Inclusion and Equal Opportunity

	2021	2020	2019
Workforce, groupwide	14,406	14,283	14,658
Of whom female	3,451	3,404	3,454
Female employees, groupwide (%)	24.0	23.8	23.6
Workforce in Germany	10,006	10,099	10,359
Of whom non-German	987	1,005	1,047
Non-German employees in Germany (%)	9.9	10.0	10.1
Employees in middle management, groupwide (managerial level 3)	3,252	3,278	3,313
Of whom female	824	804	810
Women in middle management, groupwide (%)	25.3	24.5	24.4
Executive personnel (OFK), groupwide¹	159	169	174
Of whom female senior executives	27	25	24
Female senior executives, groupwide (%)	17.0	14.8	13.8

¹ Figures for 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 75 different nations work for WACKER. At the end of 2021, 39 out of a total of 159 executives groupwide were of non-German nationality, corresponding to 24.5 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 female employees 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) 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. Enterprises, public-sector employers, charitable organizations and associations participate in the Family Pact.

Employee Turnover

Good social benefits, competitive compensation and motivating work 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 18.3 years (2020: 18.5 years). The average length of service of WACKER's executive personnel was 21.8 years.

D.15 Employee Turnover Rate

%	2021	2020	2019
Germany	2.5	0.9	0.5
International	11.0	7.5	8.4
Group	5.0	2.7	2.7

In its annual satisfaction survey of chemical-industry executives, the VAA (German Chemical Industry Association of Academic and Management Employees) ranked WACKER 14th out of the 23 companies assessed. In the reporting year, VAA member executives gave WACKER an overall score of 3.0, with 1.0 being the highest (in the previous year, WACKER had taken tenth place with a score of 2.7). The average grade for all of the companies surveyed was 2.8, as it was in the previous year.

We discuss further personnel matters in the 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. 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. All of our sites worldwide are responsive to the public. Local residents who approach us with a concern receive prompt and clear answers. We achieve this by operating local hotlines and having central contact persons in place. We publish information about our sites in environmental reports and in other brochures.

At some of our sites, we offer local communities free services, one such being the Household Hazardous Waste Day at Adrian, Michigan (USA), where neighbors can bring in household chemicals that are not allowed in trash cans.

In Munich, WACKER has sponsored the children's and youth charity The Ark since 2006, and in the reporting year made its 15th regular donation of €100,000, taking the total donated (including special donations) to over €1.5 million. The Ark helps children and adolescents from socially disadvantaged families in the city's Moosach district.

WACKER donated €100,000 to the "Aktion Deutschland Hilft" association's flood response via the WACKER Relief Fund in support of cleanup work in North Rhine-Westphalia, Bavaria and other devastated areas. On top of that, employees in Germany contributed a further €30,000, which the company doubled.

Schools and universities: WACKER wants to get children and young people interested in technology and the natural sciences. As a chemical company, we will always need outstanding scientists, now and in the future, which is why we support progressive teaching methods and modern approaches to school management. We are a founding member of the Bavarian Educational Pact, a foundation in which the state of Bavaria works together with interested enterprises to modernize Bavaria's education system. Angela Wörl, our Personnel Director, is a member of the foundation's board of directors. With WACKER's CHEM₂DO[®] experiment kit, we offer free training for teachers from Germany and Austria to conduct experiments with silicones and cyclodextrins in the classroom. Digital chemistry classes are enriched with animations and explanatory videos on curriculum topics such as interactions, hydrophobization, crosslinking and properties of plastics and silicones.

► www.chem2do.de (in German only)

WACKER places great emphasis on fostering young scientific talent and maintaining close contacts with universities. Our researchers are invited to deliver presentations and lectures at universities. University groups visit our locations to gain insights into work at an industrial company. Virtual formats were increasingly used during the coronavirus pandemic. Students can write their bachelor's, master's and doctor's theses at WACKER, work as interns with the company or take vacation jobs.

In the reporting year, we conferred the WACKER Silicone Award on Martin Oestreich, professor of synthesis and catalysis at the Technical University of Berlin. Initiated in 1987, this award of €10,000 was given in 2021 to Professor Oestreich for advancements in basic research on catalysts in the field of organic and organosilicon chemistry.

D.16 Corruption and Bribery Incidents

	2021	2020	2019
Prevention			
Number of organizational units examined for corruption/bribery risks	27	27	29
Number of legal entities examined for corruption/bribery risks	24	20	20
Corruption and Bribery Incidents¹			
Examined	-	-	1
Closed ²	-	-	2
Measures Taken in Response to Corruption and Bribery Incidents³			
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 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 reviewed the changes in German law in order to update our standards and prepare for additional requirements.

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, sales, and human rights. 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.

Dr. Christian Hartel, our president and CEO, is also responsible for CSR matters, including the issue of human rights. He 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 concerning 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 on a quarterly basis of any relevant compliance issues in the Group. In urgent cases, the Executive Board is informed immediately. One principal objective is to ensure that neither the company nor its Executive Board or Supervisory Board are exposed to liability risk.

Compliance training raises employees' awareness of the relevant risks and informs them of rules of conduct applicable to their daily work. Compliance is a compulsory training subject for all WACKER Group employees. WACKER had already set up whistleblower hotlines at its sites in Brazil, China, Italy and the USA and expanded these across the Group in the reporting year. They provide a means for employees and business partners to report any breaches anonymously.

According to Transparency International's Corruption Perceptions Index (CPI), WACKER generates half its sales in countries with a low or 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 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.). We consult with our suppliers on these matters in technical and commercial discussions, in annual supplier assessments and at our Supplier Days, as well as in the context of audits and training.

WACKER is a member of the Together for Sustainability (TfS) initiative. Launched by the chemical industry, this procurement initiative has developed a framework that allows member companies to audit and assess a supplier's sustainability performance. The standardized audit results are accessible to all TfS members. Results of TfS audits and assessments are integral to our process of supplier evaluation. In the event of unsatisfactory results, we consult with the supplier involved and agree on action to be taken to make improvements. We follow up on progress with reassessments or repeated audits. 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.

Key suppliers, who make up more than 80 percent of our procurement volume, are expected to furnish proof of sustainable practice in the form of an EcoVadis assessment with a minimum score of 45 or a TfS audit with no findings. At the end of 2021, 83 percent of our key suppliers – who generated 96 percent of procurement volume from key suppliers – were covered by a valid TfS assessment or audit. We track our TfS goals in monthly management reports.

» <https://tfs-initiative.com/>

We expect our suppliers to use a management system that meets the requirements of ISO 9001 (quality) and ISO 14001 (environmental protection) or those of certifications that exceed these standards, such as GMP (Good Manufacturing Practice). Our compliance requirements for suppliers form part of our general terms and conditions and are published in our Supplier Code of Conduct.

» https://www.wacker.com/cms/media/asset/about_WACKER/procurement_and_logistics_1/suppliers/supplier_code_of_conduct.pdf

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. We reached the Platinum EcoVadis sustainability recognition level in the reporting year, which puts us in the top one percent of all companies assessed.

Risk and Compliance Management

Managing Corporate Risks

Risk and compliance management at WACKER as well as the major risk areas affecting its business are presented in the risk management report, which forms part of the combined management report. Overall, we see no serious risks that might arise from environmental concerns, personnel matters, social issues, human rights, corruption or bribery. We see no serious sustainability risks that might arise from our business relationships, our business activities 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/2021/annual-report/management-report/management-processes/value-based-management>

» Sector-specific conditions: <https://reports.wacker.com/2021/annual-report/management-report/business-report/sectors>

» Opportunities report: <https://reports.wacker.com/2021/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 has 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.17 Energy Consumption

GWh	2021	2020	2019
Electricity consumption	3,927	3,776	4,023
Of which			
From on-site generation (fossil)	1,062	988	802
From on-site generation (renewable)	232	248	273
Energy consumption ¹	4,098	3,785	3,635
Of which			
Natural gas ^{2,3}	4,071	3,764	3,613
Solid fuels ⁴	–	–	–
Heat supplied by third parties ⁵	27	21	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

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D.18 Environment- and Safety-Related Incidents

	2021	2020	2019
Number of environment- and safety-related incidents ¹ , Wacker Chemie AG	28	19	15
Environment- and safety-related incidents at Wacker Chemie AG per million hours worked ²	1.8	1.2	1.0

¹ Pursuant to the criteria of the European Chemical Industry Council (Cefic Guidance for Reporting on the ICCA Globally Harmonized Process Safety Metric, latest version: June 2016)

² WACKER Process Safety Incident Rate (WPSIR)

D.19 Workplace Accidents Involving Permanent Staff and Temporary Workers

	2021	2020	2019
Accidents ¹ per million hours worked	4.6	3.1	3.3
Reportable accidents ² per million hours worked	2.8	2.1	1.7
Fatal accidents	–	–	–

¹ Accidents leading to at least one day off work² Accidents leading to over three days off work**D.20 Number of Employees and Temporary Workers**

	2021	2020	2019
Employees	9,724	9,823	10,093
Temporary workers	114	92	71

D.21 Environmental Indicators

	2021	2020	2019
Air			
CO ₂ equivalent emissions ¹			
Direct (kt) ²	780	732	702
Of which fossil (kt)	780	732	702
Of which biogenic (kt)	–	–	–
Indirect (location-based) (kt) ³	911	1,022	1,230
Indirect (market-based) (kt) ⁴	1,622	–	–
Nitrogen oxides (NOx) (t)	350	400	460
Non-methane volatile organic compounds (NMVOCs) (t) ⁵	540	490	490
Dust (t)	23	27	21
Water			
Water withdrawal (thousand m ³) ⁶	239,815	230,740	204,630
Utilized by WACKER	204,211	–	–
Supplied to third parties	35,604	–	–

¹ CO₂e (CO₂-equivalent) emissions are measured on the basis of the Greenhouse Gas Protocol (GHG Protocol: "A Corporate Accounting and Reporting Standard"), published by the World Resources Institute and World Business Council for Sustainable Development. Scope 1: direct CO₂ emissions. As of 2021, we also report the amounts of CO₂e that are generated by greenhouse gases. Scope 2: indirect emissions from the consumption of purchased energy (converted into CO₂ equivalents for purchased electricity, steam and heat). From 2021 onward, the conversion for electricity is based both on emission factors of the International Energy Agency (location-based) as well as those of the electricity suppliers (market-based). Both the location-based and market-based conversions for steam and heat are calculated based on the emission factors in the GEMIS database.

² CO₂ emissions are broken down into fossil and biogenic sources in accordance with the GHG Protocol. Biogenic emissions arise from the combustion or decomposition of renewable raw materials.

³ The amount of electricity supplied by the affiliate Alzwerke GmbH is included in indirect CO₂ emissions in a climate-neutral manner – because it is not fed into the public grid. From 2020 onward, indirect CO₂ emissions also include methane and nitrous oxide emissions converted into CO₂ equivalents. Conversion of purchased electricity volumes to CO₂ emissions is done using the emission factors of the International Energy Agency (location-based).

⁴ The amount of electricity supplied by the affiliate Alzwerke GmbH is included in indirect CO₂ emissions in a climate-neutral manner – because it is not fed into the public grid. Conversion of purchased electricity to CO₂ emissions is done using the emission factors of the electricity suppliers (market-based). If the emission factors for the respective suppliers are not available, the residual mix emission factors are used.

⁵ As of 2021 we also report the amount of NMVOCs that are generated by greenhouse gases.

⁶ From 2021 onward, the figure for water withdrawal also includes water supplied to third parties.

D.22 Waste

Waste by type, in metric tons (t)	2021 ¹	2020 ²	2019 ²
Total	124,575	200,160	175,870
Recycled	110,805	111,280	111,500
Hazardous	62,567	–	–
Non-hazardous	48,238	–	–
Disposed of	13,770	88,880	64,370
Hazardous	9,377	–	–
Non-hazardous	4,393	–	–
Hazardous	71,944	96,350	71,390
Non-hazardous	52,631	103,810	104,480
Recycled waste in the reporting year, in metric tons (t)	Onsite	Offsite	Total
Hazardous waste			
Preparation for reuse	–	–	–
Recycling	6,462	2,577	9,039
Other recovery processes	21,728	31,800	53,528
Total	28,190	34,377	62,567
Non-hazardous waste			
Preparation for reuse	–	35	35
Recycling	–	9,873	9,873
Other recovery processes	3,602	34,728	38,330
Total	3,602	44,636	48,238
Waste disposed of in the reporting year, in metric tons (t)	Onsite	Offsite	Total
Hazardous waste			
Incineration (with energy recovery)	488	904	1,392
Incineration (without energy recovery)	4,399	1,715	6,114
Landfill	1,490	293	1,783
Other waste-treatment processes	–	88	88
Total	6,377	3,000	9,377
Non-hazardous waste			
Incineration (with energy recovery)	1	13	14
Incineration (without energy recovery)	3,290	181	3,471
Landfill	326	582	908
Other waste-treatment processes	–	–	–
Total	3,617	776	4,393

¹ First-time reporting of waste treatment in accordance with GRI 306 in 2021

² The data for 2020 and 2019 was not reported on the basis of GRI 306.

Limited Assurance Report of the Independent Auditor Regarding the Combined Separate Non-Financial Report¹

To the Supervisory Board of Wacker Chemie AG, Munich

We have performed an independent limited assurance engagement on the combined separate non-financial statement of Wacker Chemie AG, Munich (further “Company” or “Wacker Chemie AG”) and on the non-financial statement of the parent company that is combined with it (further “combined separate non-financial report”) for the period from January 1 to December 31, 2021.

Management’s Responsibility

The legal representatives of the Company are responsible for the preparation of the combined separate non-financial report in accordance with Sections 315b, 315c in conjunction with 289b to 289e HGB and with Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of June 18, 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (further “EU Taxonomy Regulation”) and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the Company as disclosed in Section “EU Taxonomy Regulation” of the combined separate non-financial report.

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.

The EU Taxonomy Regulation and the supplementing Delegated Acts contain wordings and terms that are still subject to substantial uncertainties regarding their interpretation and for which not all clarifications have been published yet. Therefore, the legal representatives have included a description of their interpretation in Section “EU Taxonomy Regulation” of the combined separate non-financial report. They are responsible for its tenability. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations is subject to uncertainty.

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, 2021 has not been prepared, in all material respects, in accordance with Sections 315b and 315c in conjunction with 289b to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the legal representatives as disclosed in Section “EU Taxonomy Regulation” of the combined separate non-financial report. 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:

¹ Our engagement applied to the German version of the combined separate non-financial report 2021. This text is a translation of the Independent Assurance Report issued in German, whereas the German text is authoritative.

- 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.
- Reviewing the suitability of internally developed Reporting Criteria.
- 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 taken at the site in Ulsan in South Korea.
- Assessment of the overall presentation of the disclosures.
- Inquiries of Group-level personnel in order to understand the processes for identifying relevant economic activities according to the EU Taxonomy Regulation.
- Understanding the design and implementation of systems and processes for the identification, processing and monitoring of turnover, capital expenditure and operating expense disclosures for taxonomy-eligible economic activities.
- Evaluation of the process for the identification of taxonomy-eligible economic activities and the corresponding disclosures in the combined separate non-financial report.

The legal representatives have to interpret vague legal concepts in order to be able to compile the relevant disclosures according to Article 8 of the EU Taxonomy Regulation. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations and, correspondingly, our assurance thereof are subject to uncertainty.

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, 2021 has not been prepared, in all material respects, in accordance with Sections 315b and 315c in conjunction with 289b to 289e HGB and with the EU Taxonomy Regulation and the supplementing Delegated Acts as well as the interpretation disclosed in Section "EU Taxonomy Regulation" of the combined separate non-financial report.

Restriction of Use/General Engagement Terms

This assurance report is issued for purposes of the Supervisory Board of Wacker Chemie AG, Munich, only. We assume no responsibility with regard to any third parties.

Our assignment for the Supervisory 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://www.kpmg.de/bescheinigungen/lib/aab_english.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 3, 2022

KPMG AG
Wirtschaftsprüfungsgesellschaft

[Original German version signed by:]

Hanshen Wirtschaftsprüfer [German Public Auditor]	Vogl Wirtschaftsprüferin [German Public Auditor]
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Multiyear Overview

€ million	2021	Change in %	2020	2019	2018	2017
Sales	6,207.5	32.3	4,692.2	4,927.6	4,978.8	4,924.2
Income before taxes	1,093.6	>100	217.9	-591.2	324.4	335.0
Net income for the year	827.8	>100	202.3	-629.6	260.1	884.8
EBITDA	1,538.5	>100	666.3	783.4	930.0	1,014.1
EBIT	1,134.3	>100	262.8	-536.3	389.6	423.7
Fixed assets	3,372.7	7.5	3,136.5	3,494.1	4,324.5	4,209.4
Intangible assets	45.9	>100	21.1	29.4	38.3	41.5
Property, plant and equipment	2,466.9	3.1	2,393.2	2,652.6	3,527.0	3,501.7
Right-of-use assets	138.8	25.3	110.8	119.8	-	-
Financial assets	721.1	17.9	611.4	692.3	759.2	666.2
Current assets, incl. deferred taxes + prepaid expenses	4,761.6	24.8	3,814.0	2,996.9	2,794.2	2,626.3
Liquidity ¹	1,983.3	48.2	1,338.0	545.2	383.1	505.1
Equity	3,100.4	83.3	1,691.8	2,029.0	3,145.5	3,169.3
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	2,645.4	>100	1,252.1	1,593.8	2,714.1	2,746.1
Non-controlling interests	81.9	23.0	66.6	62.1	58.3	50.1
Borrowed capital	5,033.9	-4.3	5,258.7	4,462.0	3,973.2	3,666.4
Provisions	2,082.9	-30.9	3,016.0	2,525.0	2,051.1	2,042.8
Liabilities, incl. deferred taxes + deferred income	2,951.0	31.6	2,242.7	1,937.0	1,922.1	1,623.6
Net financial debt (-)						
Net financial receivables (+)	546.5	>100	-67.5	-713.7	-609.7	-454.4
Total assets	8,134.3	17.0	6,950.5	6,491.0	7,118.7	6,835.7
Employees (average for the year)	14,352	-0.3	14,401	14,751	14,301	13,723
Employees (Dec. 31)	14,406	0.9	14,283	14,658	14,542	13,811

¹ Securities, fixed-term deposits, cash and cash equivalents

€ million	2021	Change in %	2020	2019	2018	2017
Key profitability figures						
Return on sales (EBIT) = EBIT/sales (%)	18.3	>100	5.6	-10.9	7.8	8.6
Return on sales (EBITDA) = EBITDA/sales (%)	24.8	74.5	14.2	15.9	18.7	20.6
Return on equity = net income for the year/equity (as of Dec. 31) (%)	26.7	>100	12.0	-31.0	8.3	27.9
ROCE – return on capital employed = EBIT/capital employed (%)	28.3	>100	5.6	-11.3	5.9	7.5
Key statement-of-financial-position figures						
Investment intensity of fixed assets = fixed assets/total assets (%)	41.5	-8.1	45.1	53.8	60.7	61.6
Equity ratio = equity/total assets (%)	38.1	56.9	24.3	31.3	44.2	46.4
Capital structure = equity/borrowed capital (%)	61.6	91.3	32.2	45.5	79.2	86.4
Cash flow and capital expenditures						
Cash flow from operating activities	1,064.4	21.8	873.7	605.0	509.6	613.0
Cash flow from long-term investing activities – before securities	-303.6	72.5	-176.0	-420.6	-423.4	-325.0
Cash flow from financing activities	-153.9	>100	117.1	-26.2	-240.5	-333.1
Net cash flow = CF from operating activities + CF from investing activities – additions from finance leases	760.8	9.0	697.7	184.4	86.2	358.1
Capital expenditures	343.8	53.2	224.4	379.5	460.9	326.8
Share and valuation						
Consolidated net income	827.8	>100	202.3	-629.6	260.1	884.8
Earnings per share (€) = consolidated net income/number of shares	16.24	>100	3.81	-12.94	4.95	17.45
Market capitalization (total number of shares without treasury shares)	6,537.6	12.7	5,799.9	3,360.2	3,929.5	8,057.8
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)	131.60	12.7	116.75	67.64	79.10	162.20
Dividend per share (€)	8.00	>100	2.00	0.50	2.50	4.50
Dividend yield (%)	6.0	>100	2.9	0.7	2.1	4.0
Capital employed	3,782.2	-8.0	4,111.4	5,183.5	4,917.0	5,138.3

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 degrees Celsius.

Primary Energy

Primary energy is obtained from naturally occurring sources such as coal, gas, oil or wind. Secondary energy, in contrast, is derived from primary energy via a transformation process (which often involves energy losses); examples include electricity, heat and hydrogen.

Silanes

Silanes are used as monomers for the synthesis of siloxanes or sold directly as reagents or raw materials. Typical applications include surface treatment, agents (medically active substances) in pharmaceutical synthesis, and coupling agents for coatings.

Silica

Collective term for compounds with the general formula $\text{SiO}_2 \cdot n\text{H}_2\text{O}$. Synthetic silicas are obtained from sand. On the basis of the method of production, a distinction is made between precipitated silicas and pyrogenic silicas (such as HDK®).

Silica, Pyrogenic

White, synthetic, amorphous silicon dioxide (SiO_2) in powder form, made by flame hydrolysis of silicon compounds. Variously used as an additive for silicone rubber grades, sealants, surface coatings, pharmaceuticals and cosmetics.

Silicon

After oxygen, silicon is the most common element in the Earth's crust. In nature, it occurs without exception in the form of compounds, chiefly silicon dioxide and silicates. Silicon is obtained through energy-intensive reaction of quartz sand with carbon and is the most important raw material in the electronics industry.

Silicones

General term used to describe compounds of organic molecules and silicon. According to their areas of application, silicones can be classified as fluids, resins or rubber grades. Silicones are characterized by a myriad of outstanding properties. Typical areas of application include construction, the electrical and electronics industries, shipping and transportation, textiles and paper coatings.

Siloxanes

Systematic name given to compounds comprising silicon atoms linked together via oxygen atoms and with the remaining valences occupied by hydrogen or organic groups. Siloxanes are the building blocks for the polymers (polysiloxane and polyorganosiloxane) that form silicones.

VINNAPAS®

VINNAPAS® is WACKER's brand name for dispersions, dispersible polymer powders, solid resins and their associated product solutions. VINNAPAS® dispersions and polymer powders are primarily used in the construction industry as polymeric binders, e.g. in tile adhesives, exterior insulation and finish systems (EIFS)/external thermal insulation composite systems (ETICS), self-leveling compounds, and plasters.

Volatile Organic Compounds (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. ROCE 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.

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2022 Financial Calendar



Interim Statement on the
1st Quarter of 2022



Annual Shareholders' Meeting



Interim Report on the
2nd Quarter of 2022



Interim Statement on the
3rd Quarter of 2022

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