



# 2

## CONSOLIDATED MANAGEMENT REPORT

### Fundamental information about the group

■ Krones at a glance.....	51
■ 2022 in review.....	55
■ Systems and lifecycle service – performance matters.....	59
■ Strategy and management system.....	62
■ Research and development (R&D).....	73

Non-Financial Statement.....	81
------------------------------	----

### Report on economic position

■ Economic environment.....	138
■ Krones in figures.....	147
■ Report from the segments.....	163
■ Overall assessment of economic position.....	169
■ Employees.....	170

Risk and opportunity report.....	172
----------------------------------	-----

Events after the reporting period.....	185
--	-----

Report on expected developments.....	186
--------------------------------------	-----

Takeover-related disclosures.....	191
-----------------------------------	-----

Dependency report.....	194
------------------------	-----



## Krones at a glance

### Business model, business areas and organisational structure

Krones offers machinery and systems for filling and packaging and for beverage production. Innovative digitalisation and intralogistics solutions round out our portfolio. Krones' customers include breweries, beverage producers and companies from the food, chemical, pharmaceutical and cosmetic industries. Services are an important part of Krones' business model. The company maintains service centres and offices around the world.

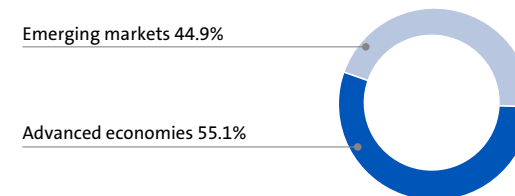
Beginning in 2022, Krones reports on three segments: **Filling and Packaging Technology, Process Technology and Intralogistics**. The new Intralogistics segment came under the Process Technology segment until 2021.

### Major markets and competitive position

Customers in the beverage industry account for most of Krones' revenue. The remaining revenue comes from business in non-beverage sectors (food, dairy, chemicals, pharmaceuticals, and cosmetics).

Krones is heavily export-oriented, generating around 90% of consolidated revenue outside Germany. The regional revenue split is well balanced overall. In the reporting period, Krones generated 55.1% of its revenue in industrialised countries and 44.9% in the rapidly growing emerging markets.

Krones group share of consolidated revenue 2022



Apart from a few large companies that are part of a corporate group, Krones competes with a number of companies that offer only individual filling and packaging products. Most of our main competitors are based in the euro area. Chinese manufacturers have primarily competed against Krones for orders on their home market. In the two smaller segments, Process Technology and Intralogistics, Krones competes with major suppliers worldwide and with smaller regional competitors.

Backed by our global service portfolio, which enables us to provide fast service to customers on-site, Krones is well positioned in the competitive arena as a full-service provider.



Filling and Packaging Technology segment

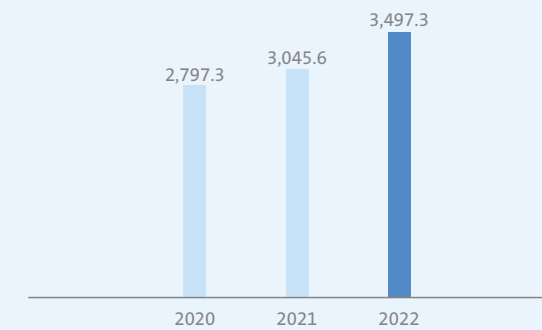


This is by far Krones' largest segment. It offers machines and lines for filling, labelling, packaging and conveying products. Machines and lines for producing PET containers and converting used plastic bottles into food-grade recycled material (PET recycling systems) are also part of this segment. In addition, the service business is an important part of the segment.

- Product treatment technology
- Labelling technology
- Inspection technology
- Filling technology
- Cleaning technology
- Plastics technology
- Packing and palletising technology
- Conveyor technology
- Plastics recycling

See also Segment report, pages 163 and 216.

Revenue (€ million)



	2020	2021	2022
EBITDA (€ million)	171.5	283.2	332.7
EBITDA margin (%)	6.1	9.3	9.5

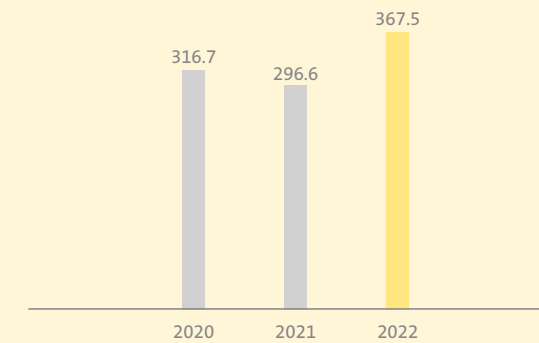


This Krones segment supplies customers with machines and lines for producing and processing beer, soft drinks, fruit juices, milk, dairy drinks and alternative proteins. In addition to water treatment, the Process Technology segment also includes Evoguard brand components and the service business.

- Brewhouse and filtration technology
- Water treatment
- Alternative proteins
- Components (valves, pumps, etc.)

See also Segment report, pages 165 and 216.

Revenue (€ million)



	2020	2021	2022
EBITDA (€ million)	-31.4	18.6	20.4
EBITDA margin (%)	-9.9	6.3	5.5

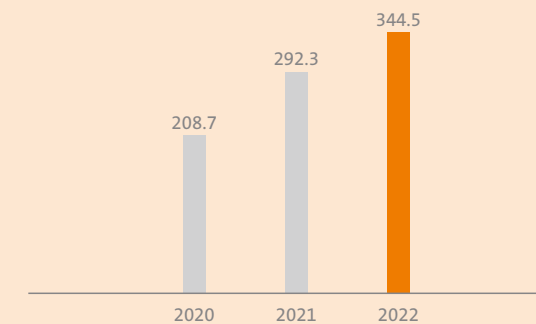


Commencing in 2022, Krones reports on the Intralogistics business as a separate segment. In this segment, under subsidiary System Logistics, Krones provides the planning and design of fully automated warehousing, order-picking and material flow systems with high-speed feeders, conveyors and automated guided vehicle (AGV) systems. Services are an additional part of the segment.

- Warehouse and material flow technology
- System and software solutions
- Conveyors and automated guided vehicles

See also Segment report, pages 167 and 216.

Revenue (€ million)



	2020	2021	2022
EBITDA (€ million)	-6.9	10.8	20.2
EBITDA margin (%)	-3.3	3.7	5.9



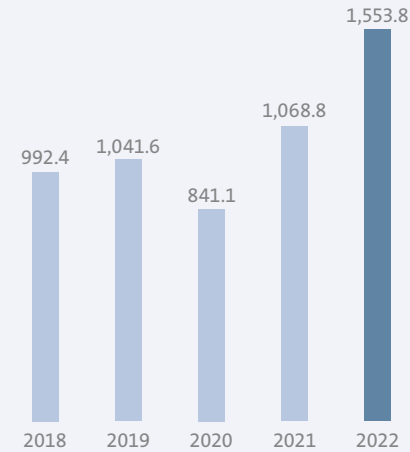
## First quarter 2022

Krones made a very good start to the 2022 financial year. Order intake in the first quarter rose by 45.4% to €1,553.8 million – the highest quarterly figure in the company's history. Krones improved revenue between January and March by 12.9% to €987.2 million. Due to flexible production control and good procurement management, Krones was able to improve profitability slightly despite higher material costs. EBITDA went up from €76.5 million in the previous year to €87.0 million. The EBITDA margin was 8.8% (previous year: 8.7%).

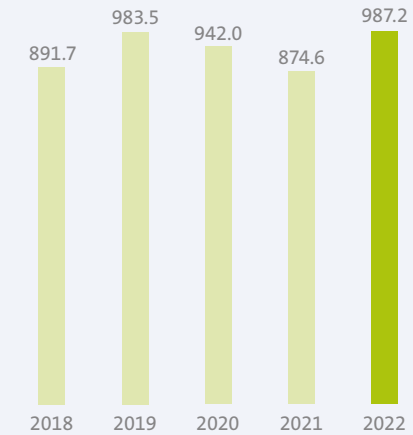
At the end of March, the company announced that Uta Anders was to take over the position of Chief Finance Officer with effect from 1 January 2023. She thus succeeds Norbert Broger, who left the company at his own request on expiry of his Executive Board contract on 31 December 2022. Uta Anders has been head of Controlling, Accounting and Taxes in the Krones Group since the end of 2020.

Stock markets dropped sharply in the first quarter. The markets were impacted by rising interest rates and the Russia-Ukraine conflict. Krones' share price likewise fell during the first quarter after marking its high for the quarter at €99.25 on 5 January. The share price was brought down by the Russia-Ukraine conflict and the resulting negative market sentiment. At the end of March, Krones shares stood at €75.45, down 21.3% on the beginning of the year.

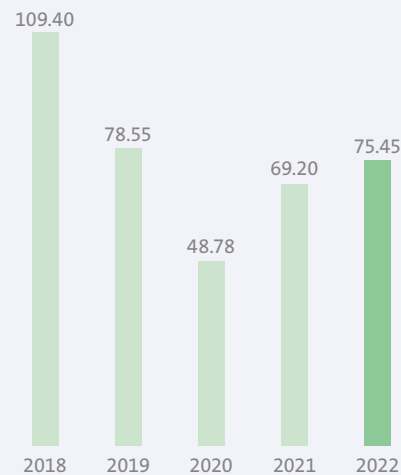
Order intake Q1 (€ million)



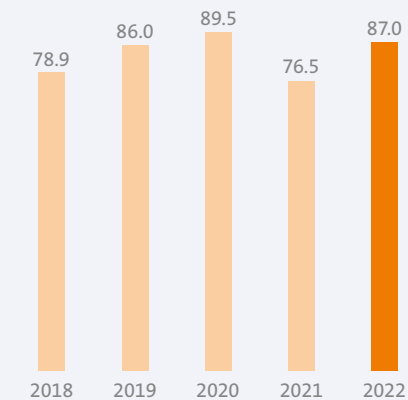
Revenue Q1 (€ million)



Share price 31 March (€)



EBITDA Q1 (€ million)





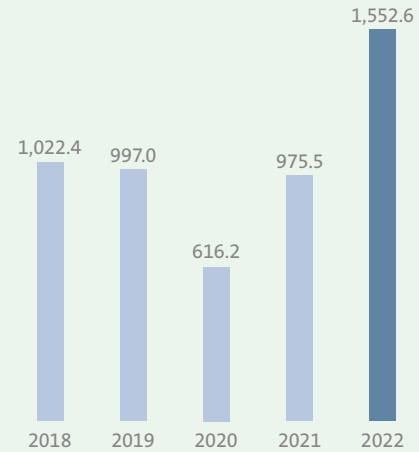
## Second quarter 2022

Krones' 42nd Annual General Meeting (AGM) took place in Neutraubling on 31 May. As in the two preceding years, it was held as a virtual meeting. AGM attendance – the proportion of the company's share capital represented at the online meeting – was some 75% (previous year: 80%). All agenda items submitted for voting were adopted by shareholders with a large majority, including the dividend distribution of €1.40 per share.

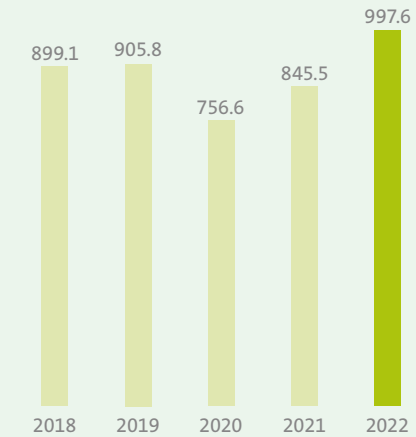
Krones' business continued to perform very well in the second quarter, despite the global challenges. Order intake increased 59.2%, from €975.5 million in the previous year to €1,552.6 million. Revenue growth accelerated from April to June thanks to flexible production management, with revenue rising by 18.0% to €997.6 million. EBITDA improved by 44.0% year on year to €88.1 million.

Prices on the world's stock exchanges continued to fall in the second quarter due to the uncertain general situation because of the Russia-Ukraine conflict. Our share price benefited when many analysts upgraded their price targets for Krones shares in response to the business figures for the first quarter. At the end of June, our share price stood at €72.80. It thus lost only 3.5% in the second quarter (1.7% including dividends), clearly outperforming the SDAX, which fell by 16.6% in the same period.

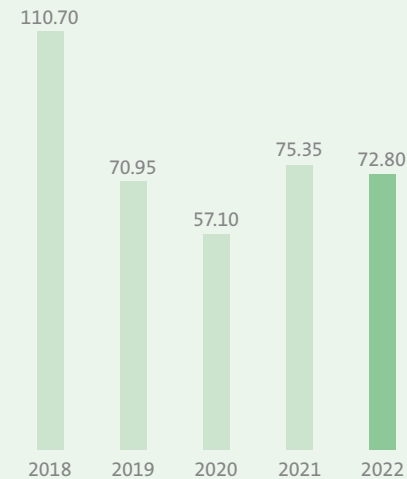
Order intake Q2 (€ million)



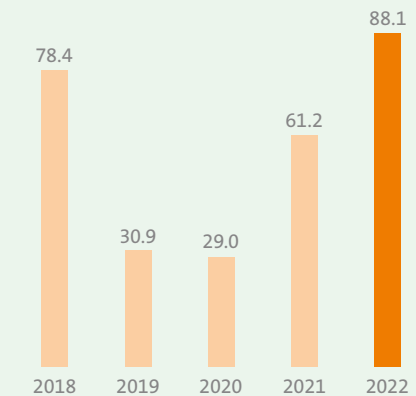
Revenue Q2 (€ million)



Share price 30 June (€)



EBITDA Q2 (€ million)





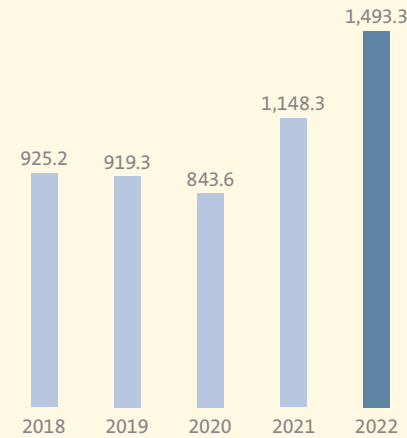
## Third quarter 2022

The highlight of Krones' year was unquestionably drinktec, the world's leading trade fair for the beverage and liquid food industry, from 12 to 16 September 2022. The central theme for Krones at drinktec was the new target picture, "Solutions beyond tomorrow" – both in the exhibits and in the many interesting discussions with our customers. In all respects, drinktec 2022 was a complete success for the entire Krones team.

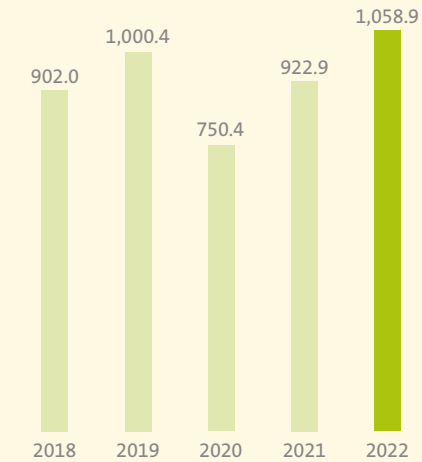
Krones continued its profitable growth under difficult conditions in the third quarter. Order intake from July to September exceeded the high prior-year figure by 30.0%, rising to €1,493.3 million. Revenue went up by 14.7% to €1,058.9 million. At €95.0 million, EBITDA was 26.8% higher in the third quarter than in the prior-year period. Over the first three quarters, Krones generated free cash flow of €132.3 million (previous year: €107.5 million).

Krones shares recorded a gain of 24.5% in the third quarter and were thus a clear outperformer. The SDAX lost 11.4% in the same period. In September especially, Krones was able to buck the weak market trend, with the share price climbing to €90.65 by 30 September. The main reason for the strong rally was probably the company's Capital Market Day held at drinktec, at which Krones notably presented its sustainability strategy in detail. Many analysts subsequently commented positively and raised their target prices.

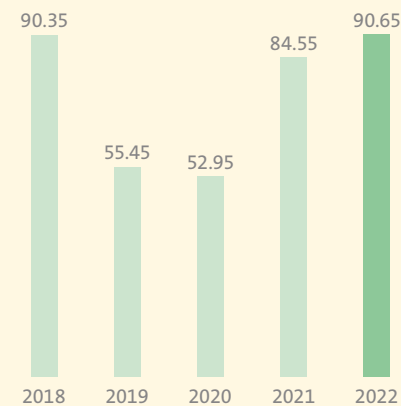
Order intake Q3 (€ million)



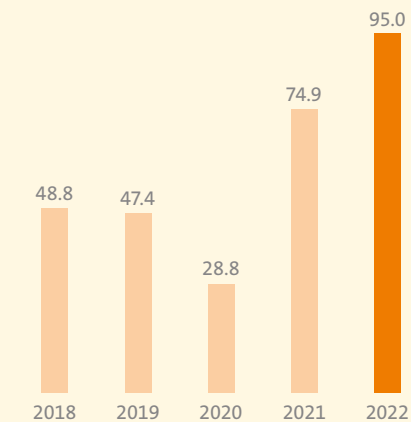
Revenue Q3 (€ million)



Share price 30 September (€)



EBITDA Q3 (€ million)







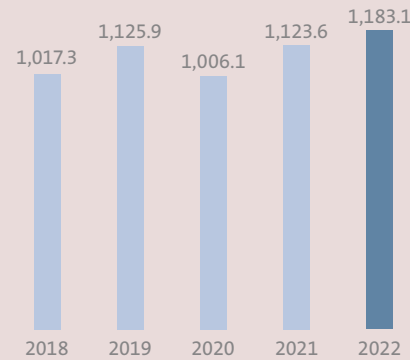
## Fourth quarter 2022

Demand continued to increase dynamically in the fourth quarter. Order intake was below the exceptionally high levels of the preceding quarters but exceeded the very good prior-year figure by 5.3% and rose to €1,183.1 million in the quarter. For the full year, order intake thus increased by 34%. Revenue from October to December improved by 17.6% to €1,165.6 million. Profitability remained at a high level with an EBITDA margin of 8.9%. EBITDA increased from €100.0 million to €103.2 million. It should be noted that EBITDA in the fourth quarter of 2021 was positively impacted by one-off income effects of €22 million.

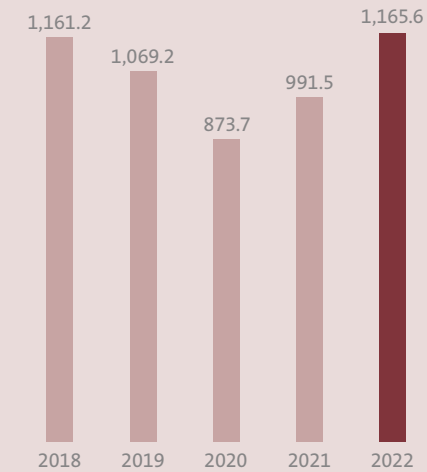
On 9 November, Kronos announced the acquisition of 80.5% of R+D Custom Automation. Based in Wisconsin, USA, R+D supplies machinery and equipment for the production and filling of containers for the pharmaceutical industry. R+D generated revenue of some US \$43 million in 2021 with a workforce of more than 60 employees. The purchase price for the stake in R+D was in the mid double-digit millions of US dollars and was met out of available cash funds.

Kronos shares benefited from the increase in the revenue guidance for 2022 on 19 October and the strong figures for the third quarter published at the beginning of November. Our shares marked their high for the year of €111.40 on 13 December and traded at €105.00 at the year-end.

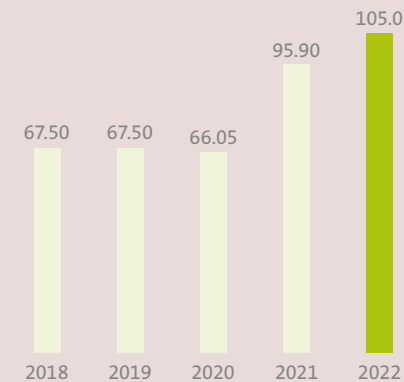
Order intake Q4 (€ million)



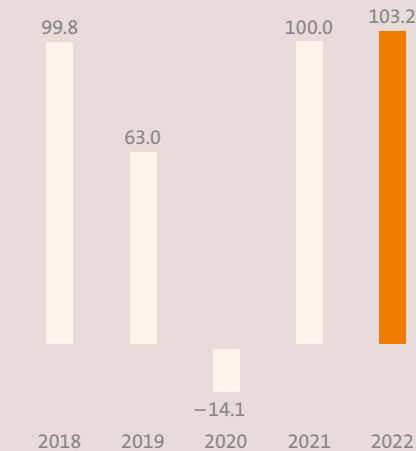
Revenue Q4 (€ million)



Share price 31 December (€)



EBITDA Q4 (€ million)





## Systems and lifecycle service – **sustainable, reliable, high-performance production**

Krones delivers turnkey plants to the beverage and liquid food industry. We use our knowhow and our line expertise to reduce customers' investment and operating costs. Just as importantly, we enable our customers to produce reliably and at high quality.

We supply all machines and lines needed for producing, filling and packaging beverages. Furthermore, we provide complete logistics systems, supply and disposal systems and custom IT and digitalisation solutions that manage and optimise all production processes.

Our lifecycle service (LCS) experts additionally support customers with excellent, 24/7 after-sales service and advice. In this way, we ensure that beverage producers are able to maintain top production performance. The Krones LCS teams work together with customers to find solutions for efficient, secure, reliable and cost-effective production. They also provide expert consulting on maintenance and retrofitting – as Partners for Performance.

The digital services provided by Krones that are accessible to customers on the Krones.world portal play an increasingly important role in further improving overall line efficiency. With service level agreement (SLA) performance, we offer customers a perfectly coordinated full-service package for effective analysis of production data – and improve the performance of their production operations.

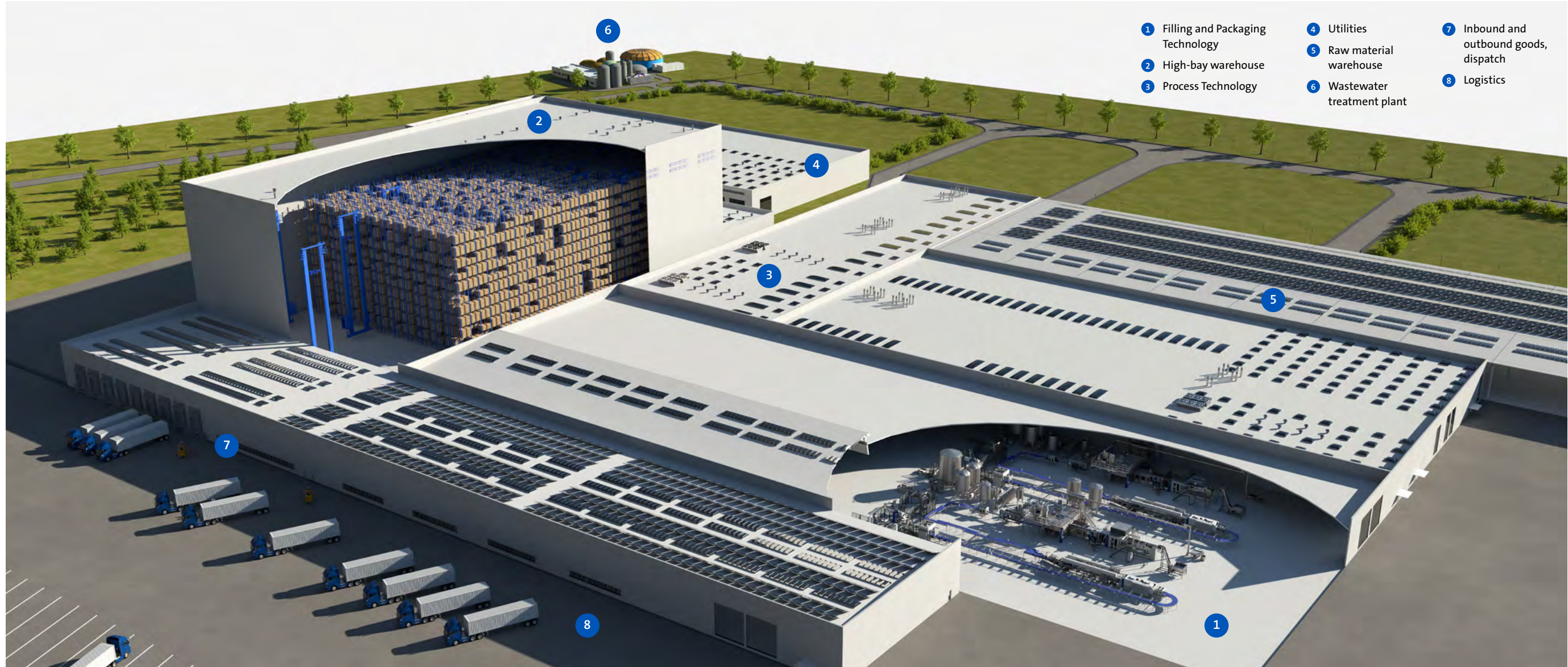
The two illustrations of a complete beverage plant and of a filling and packaging line provide a brief overview of our portfolio.



Partner for  
Performance



## Krones supplies **complete beverage plants**



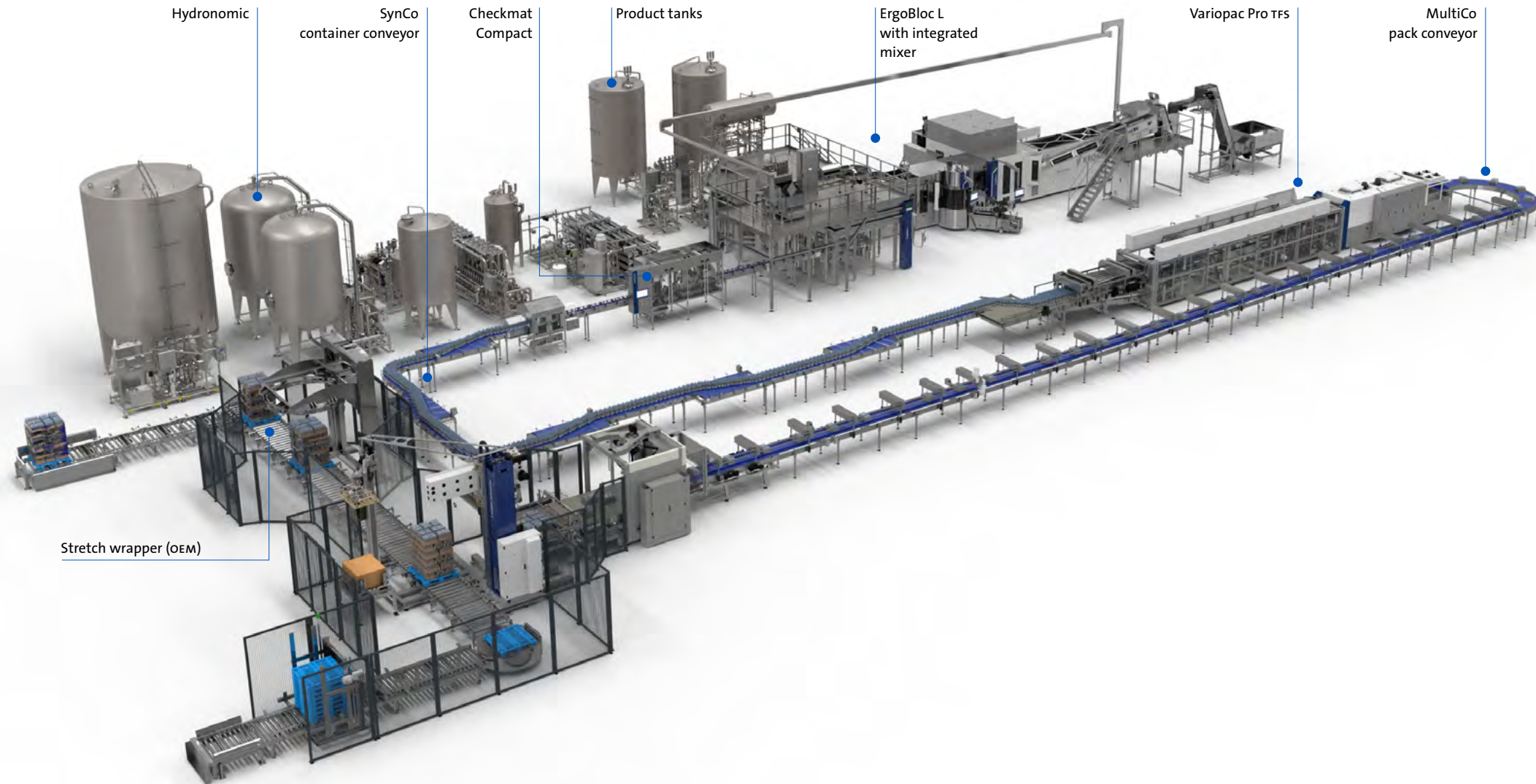
- 1 Filling and Packaging Technology
- 2 High-bay warehouse
- 3 Process Technology

- 4 Utilities
- 5 Raw material warehouse
- 6 Wastewater treatment plant

- 7 Inbound and outbound goods, dispatch
- 8 Logistics



## PET filling and packaging line for carbonated soft drinks





## Strategy and management system



*"Krones has done a good job so far of mastering the global challenges. With our new target picture, 'Solutions beyond tomorrow', we are contributing to a livable, sustainable and successful future."*

**Christoph Klenk**  
CEO

The 2022 financial year has shown that Krones in its entirety is well positioned to master crises. On top of the Covid pandemic, the global economy was also impacted in the reporting year by the Russia-Ukraine conflict and by bottlenecks in procurement and energy markets. We nevertheless generated high growth in revenue, order intake and earnings in 2022.

Krones benefited from the company's great flexibility, the enormous creativity of the workforce, our innovative strength and our very good reputation among customers. During the pandemic, we built further on that reputation by continuing to deliver what we promised even at this challenging time. As a key advantage here, Krones was upfront with customers about projects taking longer due to the pandemic restrictions and the difficulties in global supply chains. As a result, we were able to complete orders largely on time and in the usual quality, despite the difficult conditions.

Krones serves an attractive market. This is growing stably because demand for packaged beverages and foods is rising. The brief dip during the 2020 pandemic year has already been more than made up for by strong growth in the two years that followed. Megatrends such as global population growth, a growing middle class in emerging markets and increasing urbanisation are driving demand.

Market growth is also driven by the digital transformation and sustainability. As the internationally leading supplier of beverage filling and packaging machinery with a full range of products and services worldwide and the two complementary segments of Process Technology and Intralogistics, Krones is very well positioned to take advantage of the market opportunities.

### Costs and growth remain two core focuses

The good business figures do not cause us to be too euphoric by any means. We know that the political and economic uncertainties are still at a high level. These have already led to a cooling of the global economy. It is all the more important for us to further strengthen our resilience and agility for crises in order to safeguard the future of our business. To achieve this, we must continue to improve Krones' cost base and organisational structure. This continuous improvement process demands great discipline from the entire Krones team. At the same time, we will continue to seize the opportunities presented by our growing market. We took a major step forward here in the reporting year with the new Krones target picture, "Solutions beyond tomorrow" (see next page).

### Implementation of higher selling prices

Due to our innovative solutions, excellent project work at customers and generally rising costs, Krones succeeded in implementing price increases during the past financial year. Although competition remains intense, we will continue to adhere to our pricing strategy. The higher order backlog gives us the security we need to maintain our pricing discipline in the event of a potential downturn in demand.





### Better cost structure makes Krones more resilient

The cost reduction measures launched in past years are taking effect. In 2022, for the first time, the workforce reductions implemented in 2019 and 2020 are reflected in the figures for a full year. We will continue to optimise and accelerate our internal processes and workflows. Digitalising all business processes is a key part of this. We will also continue our ongoing cost reduction programmes in all areas. The aim is to further reduce the proportion of fixed costs, making us more flexible and resilient to future more volatile demand cycles.

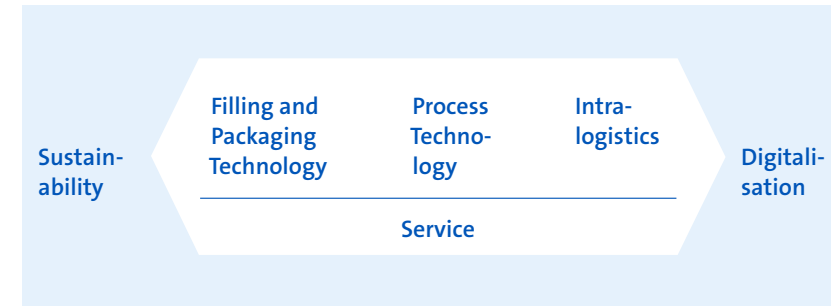
An important element for Krones in achieving more favourable cost structures is expansion of the global value-added network. More international procurement and production gives us greater flexibility to respond to trade restrictions or regional supply chain issues. The company gains significant cost advantages from the establishment of its production facilities and the associated supply chains in Hungary and China. In the coming years, we will continuously increase the proportion of value added that the Krones Group generates internationally.

### Exploiting growth opportunities with “Solutions beyond tomorrow”

In addition to resilience and agility, the Krones team also needs a clear goal to keep driving the company forward every day. That is why, in these challenging times, we have developed a new, ambitious target picture for the company: “Solutions beyond tomorrow”. Krones needs big and ambitious targets in order to keep evolving and be successful in the long term. With this new slogan, we aim to show – not only to the outside world but also internally – the direction in which Krones is heading: our company will contribute to a livable, sustainable and successful future.

### Strategic focus

With the new target picture and changing customer needs, Krones has a clear strategic focus on sustainability, service quality and digitalisation. These three focuses also determine the strategic alignment of our three business segments.



Customers’ needs have changed in recent times, notably with regard to sustainability and digitalisation. This creates major growth opportunities for Krones – in all three segments.

### Growth potential from changing customer needs

Agenda on climate change	»Must have«	Energy and carbon footprint reduction	Significant growth potential
Resource efficiency	Obligation	Water and food waste reduction	
Digital operating and business models	Essential	Increased overall equipment effectiveness (OEE)	
Circular packaging solutions	Delivered	Resource savings	

New normal Opportunities for Krones

**Sustainability: core focus for customers and Krones**

*Sustainability is high on customers' agenda.* As drinktec 2022 once again clearly showed, sustainability, climate change mitigation and resource conservation have top priority for our customers. With its products, Krones provides customers with the means for climate-friendly, circularity-oriented food and beverage production.

**enviro products: important for customers' climate targets**

Our customers in the food and beverage industry have adopted ambitious environmental and climate targets. With its TÜV-certified, continuously im-

proved enviro sustainability programme, Krones is ideally positioned as a supplier to help companies achieve their climate targets. Our customers have long benefited from the lower energy and resource consumption of our machines and lines. By 2030, Krones' goal is for its lines and machines to save customers a further 25% in energy and resources compared to 2019. Krones expects the percentage of enviro machines in its order intake to nearly double from 38% in 2022 to around 70% in 2024. The company plans an 80% reduction in its own carbon emissions by 2030 relative to 2019. Krones already achieved almost half of this reduction target by the 2022 financial year. In addition, we committed in the reporting year to developing a net zero emissions target.

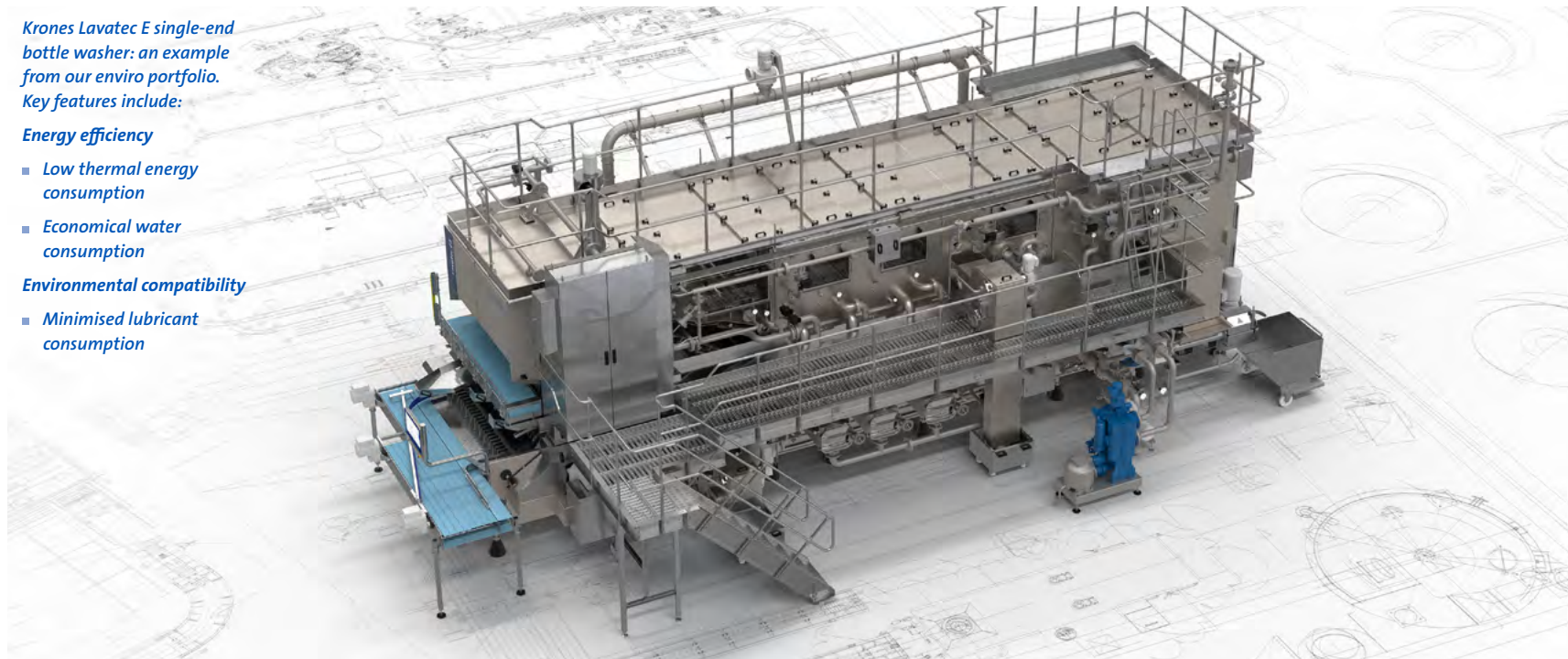
*Krones Lavatec E single-end bottle washer: an example from our enviro portfolio. Key features include:*

**Energy efficiency**

- Low thermal energy consumption
- Economical water consumption

**Environmental compatibility**

- Minimised lubricant consumption



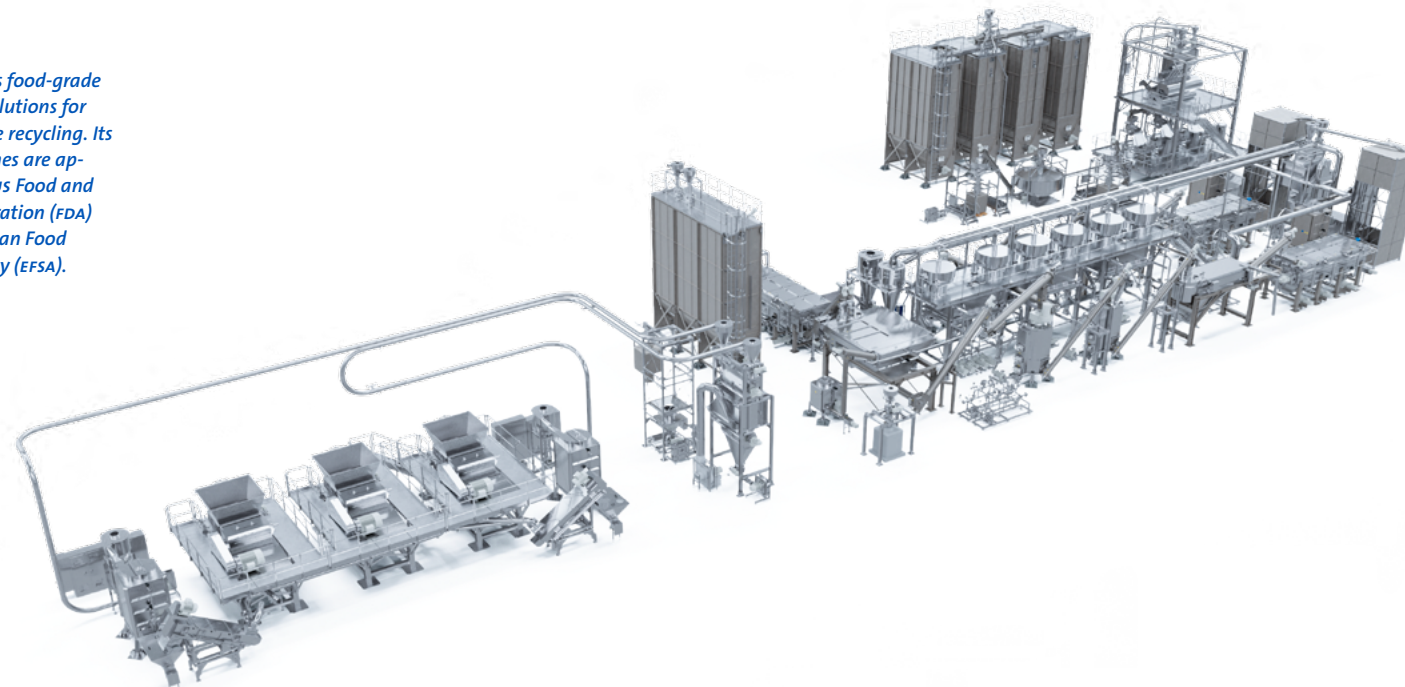


### Significantly reducing plastic littering with circularity and recycling

A major problem for future life on our planet is rapidly increasing volumes of plastic waste. Kronos wants to make a significant contribution to solving this problem. This ranges from material-saving packaging design to recycling used plastics. For the circular economy to work, returned PET must be recycled to a high standard and then reused as packaging. Over the next few years, many major customers will significantly increase the proportion of recycled PET (rPET) in their bottles – in some cases to over 50%.

With its various MetaPure lines, Kronos has key technologies for producing new PET bottles from used PET bottles in what is known as bottle-to-bottle recycling. MetaPure can also be used to recycle other packaging plastics (HDPE, LDPE, PP and PS). This prevents the loss of plastic as a valuable resource and significantly reduces the amount of plastic waste.

*Kronos provides food-grade PET recycling solutions for bottle-to-bottle recycling. Its PET recycling lines are approved by the US Food and Drug Administration (FDA) and the European Food Safety Authority (EFSA).*



### Sustainably feeding the world with alternative proteins

Today's livestock production has an enormous carbon footprint. Providing people with high-quality plant protein as an alternative to animal protein is therefore an indispensable and valuable contribution to combating climate change. Analysts expect this market to grow by 15% per year up to 2030.

Going forward, Kronos intends to play a major role in this up-and-coming market. Kronos leverages its existing dairy expertise for the production of alternative plant-based dairy products (based on soy, oats, nuts, etc.) and already supports producers with the complete process technology. In the production of solid alternative proteins (meat substitutes), the company benefits from decades of experience in controlling biological conversion processes, such as fermentation. Many vegetable proteins are produced by adding enzymes and yeasts and then fermenting.





## 2 | 66

## Digitalisation

**Digitalisation: the basis for new business models**

The digitalisation of beverage plants is important for plant operators because it enables them to achieve further significant reductions in operating costs. Krones was an industry pioneer in digitalisation as in other areas, and benefits here from its line expertise – the interoperation of many individual machines and lines.

The company has combined all of its digital services on a single platform, Krones.world. This gives plant operators access to all digital services in one place. Krones has already been supply digital-ready machines and lines for some years. By using our digital services, customers improve the efficiency of their lines and cut costs. Krones' goal is to support the entire plant life cycle with digital full-service centres, and to evolve from a machine and line manufacturer to a manager of beverage plants – from “Built by Krones” to “Managed by Krones”. It will implement this by way of service level agreements (SLAs). Under an SLA, Krones undertakes to provide a plant operator in the future with specified services in return for a service fee.

To combine its strengths in the dynamic field of digitalisation, Krones brought together all related activities Group-wide during the reporting period in Krones.digital. There, 450 software and IT engineers work exclusively on the development of digital products and services. A further approximately 1,000 IT specialists also work on digitalisation issues.

**Krones.digital: driving the digital transformation**200  
digitalisation experts120  
operational ecosystem experts100  
line operation experts30  
smart factory experts

- 450 digital experts lead our digital transformation
- One organisation to ensure the best system architecture
- One architecture, seamless from automation to digital cloud services
- ~ 1,000 additional IT specialists ensure efficient execution



## Close to the customer with a worldwide service network

Our approximately 3,000 local service staff around the world play a key role in the practical delivery of digital services. At our service companies in over 70 countries, they provide customers with support, remotely or in person. Plant operators therefore benefit not only from our digital knowhow, but also from our line expertise.

In addition, our worldwide LCS centres ensure fast delivery of spare parts. The basis for long-term growth in LCS business is the installed base, which is growing every year. There is additional potential in the share of managed lines supplied by Krones. Krones will continue to expand this going forward.

### Further internationalisation supports growth

An additional growth driver for Krones is the further internationalisation of its service business. In addition to expanding its international production sites and supply chains, Krones will also invest in expanding its sales and service structures. Some 3,000 service technicians were in deployment worldwide in the reporting period. We aim to further increase this number by 2025.

The focus continues to be on emerging markets, where growth rates will remain above average. In particular, the Asia-Pacific region and Africa are expected to see the strongest growth over the long term. Within the emerging markets, Krones will continue to invest heavily in sites and employees from these regions. This enables us to respond quickly and directly to customer needs – a key factor in long-term customer satisfaction. In the reporting period, the company increased the size of its emerging markets workforce by 326 to 4,459.

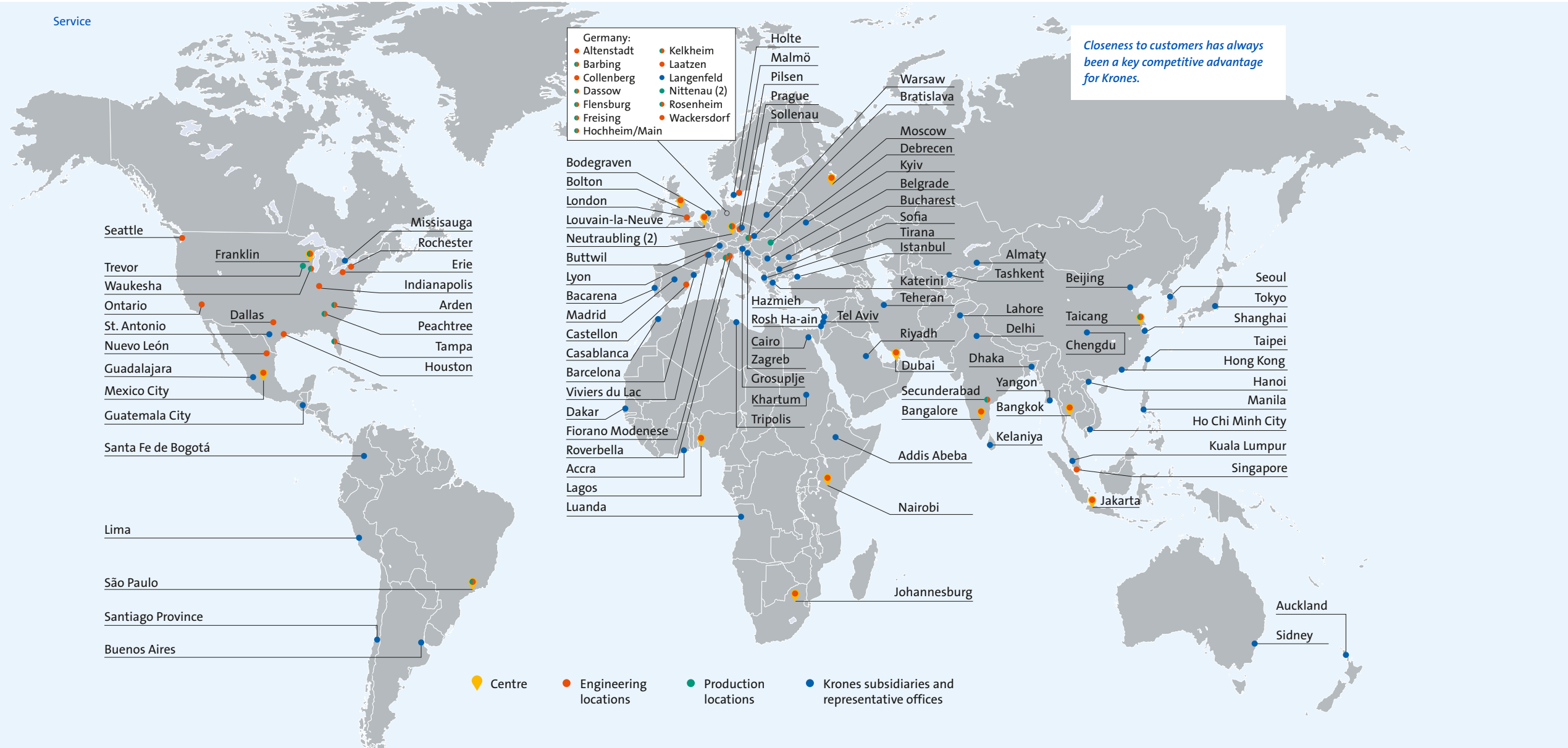
Development of employees in the emerging markets 2018–2022

Year	South America	Africa	Asia-Pacific	Eastern Europe	China	Total
2018	637	452	830	507	716	<b>3,142</b>
2019	782	671	1,009	933	792	<b>4,187</b>
2020	778	639	974	922	742	<b>4,055</b>
2021	803	633	959	1,006	732	<b>4,133</b>
2022	871	671	1,023	1,092	802	<b>4,459</b>



### KRONES Global Footprint

Service





## Strategic focus in the segments

### Filling and Packaging Technology:

#### PET, cans and aseptics accelerating growth

*The use of recycled PET is becoming increasingly important to customers. Kronos provides them here with all-round support.*

Demand for PET lines has again increased significantly. For one thing, this form of packaging has the smallest carbon footprint. For another, the material can be used to produce a wide variety of different packaging

shapes and designs. An important factor in the continued success of PET will be that, in a well-functioning circular economy, a large proportion of packaging in the future will be made from recycled PET (rPET). Kronos is well positioned here with its recycling lines and can provide customers with optimum support in the handling of rPET.

The US hotfill market – aseptic filling under heat with high energy consumption – offers a further growth opportunity for the core segment. Kronos intends to increasingly replace this process with its technologically advanced aseptic lines. These reduce both the carbon footprint and the quantity of plastic used. In the long term, the company aims to replace hotfill lines with Kronos aseptic lines that can handle preforms and bottles with rPET content.

The continued development of Kronos' can filling lines in recent years is paying off. Kronos is now once again the global market leader for filling beer and soft drinks in cans, and will be further consolidating this position with innovative line design and a new generation of fillers.

### Process Technology:

#### Profiting from new markets and energy-efficient solutions

The transformation of the Process Technology segment is progressing well. Going forward, in addition to the brewing and soft drinks business, we will also provide technologies for the production of plant-based proteins and energy-

efficient beverage production solutions such as our Brewnomic. Both of these areas will see above-average demand growth as they help to reduce global carbon emissions. The expansion of the LCS and components business is expected to add to the segment's growth and profitability.

### Intralogistics:

#### Market growing dynamically

Our newest segment is also benefiting from the sustainability megatrend. More and more, customers are demanding automation solutions as well as products that reduce labour and hence increase employee safety. Kronos will also expand business in this segment with customer groups outside of the beverage industry, such as food distributors. An increased revenue share with automated picking systems and autonomous mobile robots is also expected to improve the segment's profitability. As well as from the already dynamic market growth, Intralogistics will also benefit in the future from the expansion of services. The business, which has so far had a relatively strong focus on Europe, is to be further internationalised, particularly in Asia.

## Innovations in all three segments lay the basis for long-term success

Attractive and innovative products and services are one of the key factors in maintaining high price quality. We will continue to deliver clear and measurable value to our customers. This is why all innovations focus on customer benefit. Customer feedback on the innovations we showcased at drinktec confirms our R&D strategy. Kronos' focus in innovation is on sustainability, digitalisation and system solutions. We present our R&D strategy and a selection of innovations from the reporting period on pages 73 to 80.





## Strong finances and ambitious targets

### Optimising working capital and increasing free cash flow and ROCE

*Working capital is to be further optimised in order to increase free cash flow and ROCE.*

As well as on profitable growth, Krones places a strong focus on free cash flow and return on capital employed (ROCE). A key factor influencing the development of both of these performance indicators is working capital. Less working capital tied up in the operating business means more liquidity for other purposes and so increases free cash flow. This is set to increase in the medium term.

Working capital also affects ROCE, our third financial key performance indicator, as it is part of capital employed. As working capital goes down, ROCE goes up – on the same EBIT. To achieve our ROCE target of at least 20% by 2025 (2022: 14.1%), we aim in the medium term both to further optimise EBIT and reduce the resources tied up in working capital.

Optimising working capital therefore remains a core task for our company. The company has taken steps to reduce working capital across all key parameters.

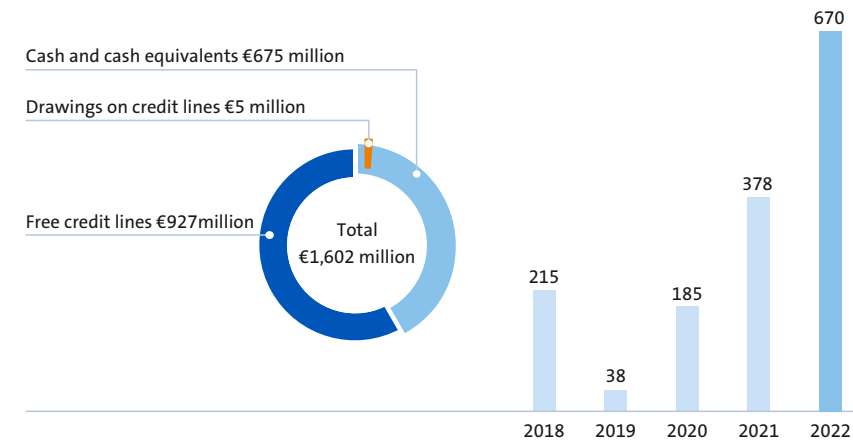
### Healthy financial and capital structure provides stability and enables investment in the future

Krones has further strengthened its finances thanks to the very good business performance and the exceptionally high free cash flow in the reporting period of around €371 million, which resulted from the very large order intake during the financial year and the associated advance payments. At the end of 2022, Krones had a very solid equity ratio of 38.3% and a net cash position of €670 million. In

addition, Krones has around €1 billion in undrawn credit lines. A very solid financial and capital structure is important in these volatile times. It gives the company and its workforce the necessary security and sufficient scope for investment in growth and the future.

Liquidity reserves 31 Dec 2022

Net cash (€ million) at 31 Dec



Krones will continue to invest some 5% of revenue in research and development. In the years ahead, we will commit between 2.5% and 3.5% of revenue to capital expenditure on property, plant and equipment. This expenditure will mainly go on optimizing processes, production structures and IT systems. Internal sustainability projects (Scopes 1 and 2) will account for a significant proportion of capital expenditure in the current year.

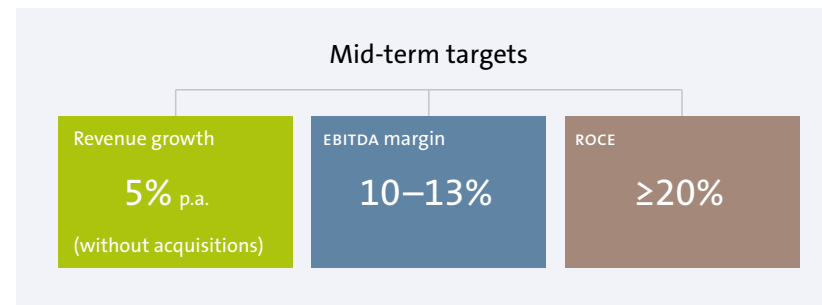


Acquisitions are also part of Krones' growth strategy. After selling prices have returned to more normal levels, acquisitions of profitable, medium-sized companies will remain an option for Krones in the coming years, in order to take advantage of opportunities in various markets. Acquisitions are aimed at strengthening the existing portfolio technologically and regionally, or at expanding target markets outside the beverage industry, such as the filling and packaging of food, pharmaceuticals and cosmetics. We began implementation of our acquisition strategy in the reporting period with the purchase of R+D Custom Automation in the United States. This enables us to expand our capabilities in the growing pharmaceutical market.

Krones will continue to share the company's success with shareholders in the form of dividends. The company's dividend strategy is to pay out 25% to 30% of consolidated net income to shareholders. In the past, it has tended towards the upper end of this range.

### Krones is well on track to achieve its medium-term targets by 2025

At the end of 2021, the company adopted new ambitious targets for the period up to 2025.



Revenue is targeted to grow organically, meaning without acquisitions, by an average of 5% year on year until 2025 (2022: €4.2 billion). Including acquisitions, the company aims for revenue of at least €5 billion in 2025. Given the strong revenue growth in the reporting period and the large order backlog, Krones is confident of achieving this target.

Krones plans to continue growing profitably in future years. Only by generating sufficient earnings will we be able to capitalise on market opportunities and navigate potential crises. To this end, despite the steeply rising material and labour costs, the company targets an EBITDA margin of 10–13% in the medium term (2022: 8.9%).

Krones aims to significantly increase return on capital employed (ROCE), as the capital efficiency target, to at least 20% by 2025 (2022: 14.1%).

Despite all the challenges, Krones currently sees more opportunities than risks for the achievement of its medium-term goals.

### Krones' greatest asset is its employees

The entire Krones team has done an outstanding job over the past few years. A variety of crises have further strengthened team cohesion and team spirit. Unique knowhow and the ability to stay level-headed but also agile and creative even in turbulent times are what make Krones resilient and successful.

All over the world, our customers appreciate the reliability of the Krones team. Despite all uncertainties and challenges, projects are completed on schedule. Our motivated and qualified employees secure the company's future. For this reason, Krones will continue to make above-average investment in employee training and development in the coming years, and will strengthen its workforce, especially in the areas of IT and software, but also in the emerging markets.



## Krones' management system

Krones' management primarily uses the following financial performance indicators to steer the group and its three segments:

- Revenue growth
- EBITDA margin (earnings before interest, taxes, depreciation and amortisation as a percentage of revenue)
- ROCE – return on capital employed – the ratio of EBIT to average net capital employed in the past four quarters. Net capital employed is defined as non-current assets (excluding goodwill and financial assets) plus working capital.

In order to strengthen our market position and utilise economies of scale, we aim in the medium term to achieve profitable **revenue growth** in all three segments.

**Earnings before interest, taxes, depreciation and amortisation (EBITDA)** is a key earnings performance indicator. Profitability, measured as the **EBITDA margin** (EBITDA as a percentage of revenue) is among our key targets and parameters. The EBITDA margin indicates the company's profitability in relation to revenue, irrespective of the tax rate, financial income/expense and depreciation and amortisation.

Since the 2022 financial year, our third performance indicator has been **ROCE** (return on capital employed), calculated at Group level. This is the ratio of EBIT (earnings before interest and taxes) to average net capital employed in the past four quarters. ROCE is a very important profitability indicator for the capital markets. Return on capital employed shows investors how efficiently the company makes use of capital. Until the 2021 financial year, our third key performance indicator was working capital as a percentage of sales.

### Development of the key performance indicators in the last five years

	2018	2019	2020	2021	2022
Year-on-year revenue growth	4.4%	2.7%	-16.1%	9.4%	15.8%
EBITDA margin	7.9%	5.7%	4.0%	8.6%	8.9%
Working capital to revenue (up to and including 2021)	27.3%	26.9%	28.3%	24.8%	19.0%
ROCE (from 2022)	11.5%	2.2%	-2.2%	10.0%	14.1%

### Other financial key performance figures

In addition to the above, a further important performance indicator for Krones is **free cash flow** (cash flow from operating activities less cash flow from investing activities). We take further guidance from the development of **EBT** (earnings before taxes), the **EBT margin** (EBT as a percentage of revenue) and the **working capital to revenue ratio**.



## Research and development (R&D)

- Krones invests 4.2% of revenue in R&D
- Customers' strong focus on sustainability is a key innovation driver
- Krones R&D strategy confirmed by positive customer response at drinktec

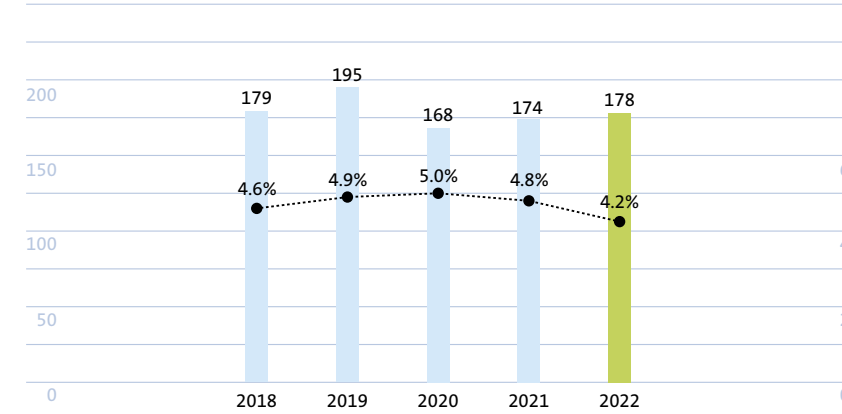
Innovative products and services are essential to Krones in realising its new target picture of "Solutions beyond tomorrow" and securing the company's long-term success. Research and development (R&D) is therefore a key strategic priority.

### Krones invested 4.2% of revenue in R&D in 2022

*Krones consistently invests around 5% of consolidated revenue in research and development, even in economically difficult times such as the 2020 coronavirus crisis.*

The level of R&D spending reflects the importance of research and development in our company. Krones has always spent a major share of revenue on maintaining a rapid pace of innovation. In the 2022 reporting year, €178 million (previous year: €174 million) or 4.2% (previous year: 4.8%) of consolidated revenue went on R&D. €23.6 million (previous year: €28.2 million) of this was capitalised as development costs.

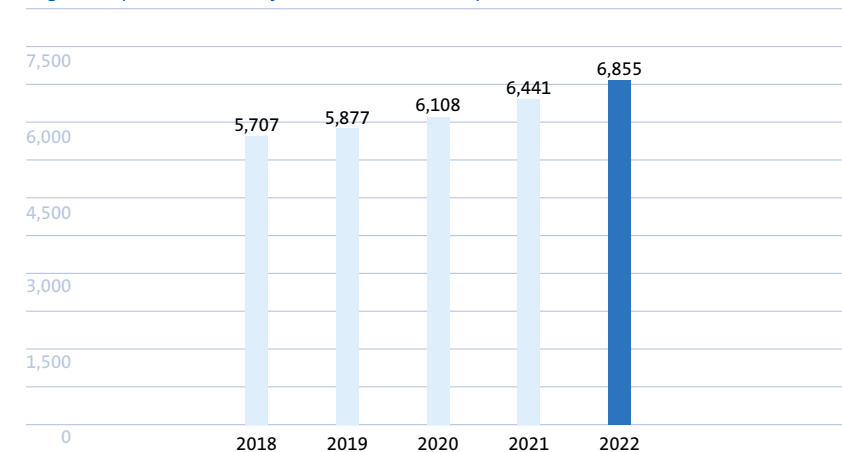
R&D expense (€ million) and R&D ratio (%)



### Strong patent portfolio secures technological lead

As part of its patent strategy, Krones ensures that all important new developments and improvements have strong legal protection. As a result, the innovative strength of the Krones R&D team is reflected in the large number of registered patents and utility models. This has increased continuously in recent years and stood at 6,855 at the end of 2022 (previous year: 6,441).

Registered patents and utility models – Krones Group







## The Krones R&D strategy

The Krones R&D strategy is derived from the new corporate strategy and is closely aligned with the target picture, “Solutions beyond tomorrow”. All R&D activities focus on customer benefit. New products and services are geared to creating added value for customers. Innovations from Krones are designed to drive the food and beverage industry forward in terms of sustainability and cost-effectiveness, and to help customers achieve their goals.

Sustainability is the biggest innovation driver. Reducing consumption and plant operating emissions is of huge importance to our customers. It is also important that resource-efficient new developments and improvements are capable of being retrofitted, so that customers can use them in existing machines and lines. We place an equally strong focus in our R&D activities on digitalisation and the development of new business models. Krones generally follows a top-down approach to new developments and improvements. This means that in development projects, we look not just at the individual machine, but at the entire beverage plant, meaning beverage production, filling, packaging and intralogistics.

Our R&D strategy at Krones has **three focal areas**:

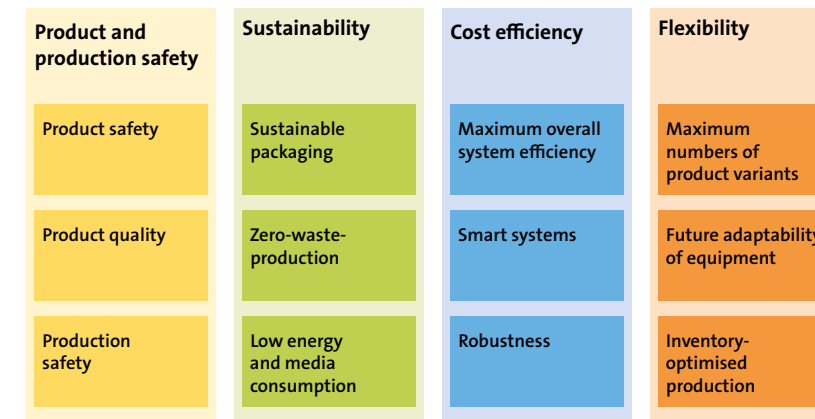
Sustainability

System solutions

Digitalisation

## The four value drivers in the Krones R&D strategy

The Krones strategy is centred on customer satisfaction. From many discussions and decades of industry experience, we understand what customers value and know their strategic vision. We regard our customers as partners and in some cases involve them in development projects. Based on customer needs and requirements, we have identified the four value drivers in our R&D strategy.



## Organisational changes in R&D accelerate the innovation process

The entire development portfolio for all product areas is managed in a clearly defined innovation process. Employees from various disciplines are actively involved in development projects. This ensures that all key aspects of the product development process and product lifecycle are aligned to customer needs.



Krones made organisational changes in R&D during the reporting period to increase the pace of innovation. The most important of these changes is that there is now a separate Sustainability separate unit within R&D. This reflects the importance of sustainability, both for customers and for Krones. The new Sustainability unit addresses all product and company-specific sustainability questions. It is supported in this by the Sustainability Steering Board composed of representatives from central units along the value chain.

Krones has formed an innovation team in order to be even faster at turning visions into solutions. This followed on from numerous discussions with customers at the drinktec trade fair on how Krones filling and packaging lines could look in the future. The innovation team is tasked with helping the company to present substantial parts of the “Krones line of the future” ready for the next drinktec in 2025. In line with our target picture, the development focus here is on sustainability, digitalisation and efficiency. The innovation team is supported by a joint technical committee established by the Executive Board and executives from various technical units. This technical committee regularly tracks and evaluates development progress.

### **Krones strengthens R&D activities by internationalisation and cooperation with external partners**

Krones is increasingly internationalising its R&D activities. We made further progress on this strategy in the reporting period. Among other things, an R&D hub has been established together with the local university in Parma (Italy). The team there conducts life cycle assessments (such as on the carbon footprint) for various types of packaging.

To further strengthen digitalisation activities, Krones has expanded the capacities of its Czech subsidiary Konplan (an engineering service provider). In India, Krones is investing in setting up a location of its own for software development.

Krones already merged and harmonised the R&D processes for automation and digitalisation under the name Krones.digital in 2021. We took this further during the reporting year. Krones.digital is a matrix organization that brings together employees who work at different locations and in different Krones companies. All cooperate closely with the R&D team who develop machinery and equipment.

As well as making use of in-house expertise for innovation, Krones collaborates with universities and research institutions and also with the R&D departments of several other companies and with customers and other partners. We also engage in joint development projects with international companies from the packaging industry. One example of this is the cooperation with US company O-I Glass, the world’s largest producer of glass containers. Together with O-I, we work on innovative and sustainable packaging solutions. In the important and highly demanding Japanese market, Krones cooperates with Toyo Seikan, Japan’s leading packaging manufacturer. The aim of this cooperation is to provide Japanese beverage producers with customised aseptic filling and packaging solutions. It is already bearing fruit. In our first joint order, we supplied an aseptic line to the largest Japanese contract filler.

### **R&D strategy programmes**

Krones’ R&D programmes are derived from our strategy and value drivers. We are aligning these programmes to the new group strategy in order to quickly translate the vision of the filling and packaging lines of the future (PET, glass, cans and aseptics) into solutions for our customers.



## Innovative new and improved solutions: the products of successful R&D

In the following, we present a selection of Krones innovations and drinktec highlights from the reporting period.

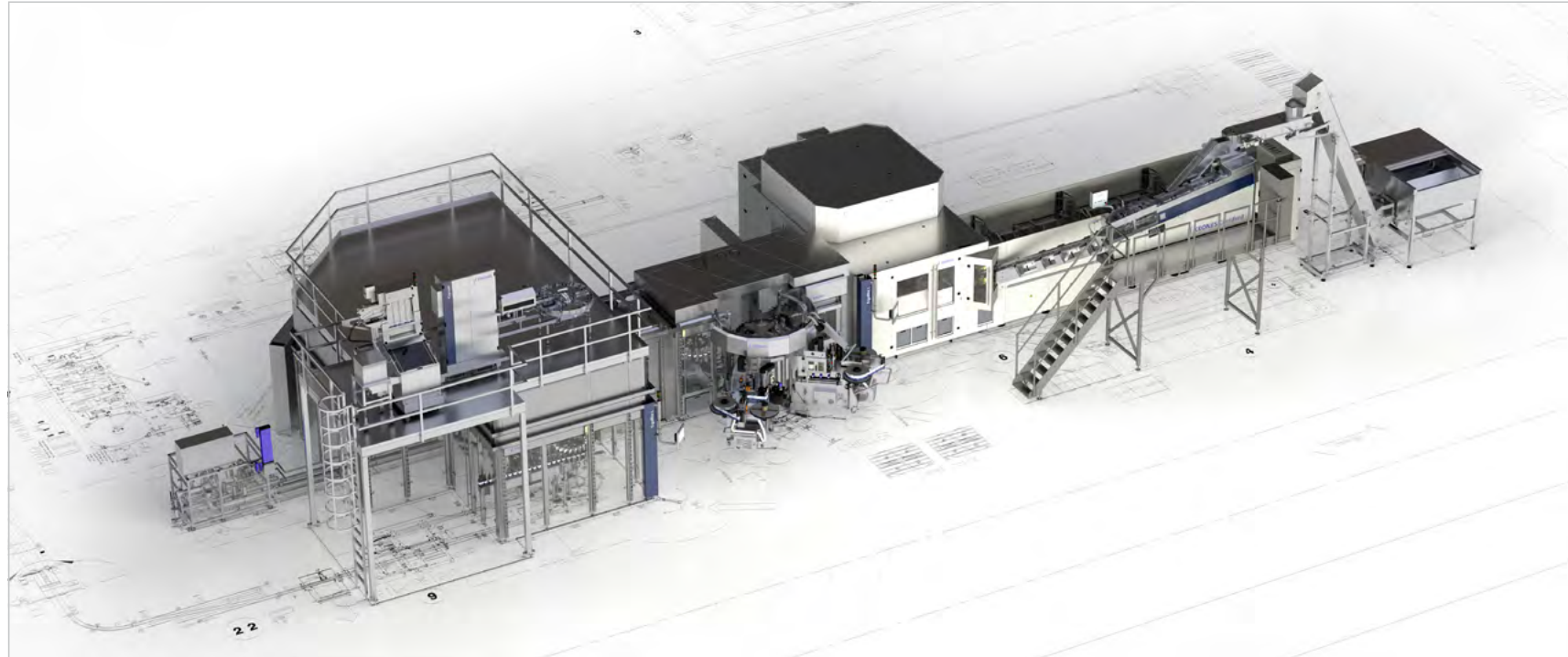
### Contiform: more flexible and efficient than ever in the fourth generation

In the fourth-generation Contiform stretch blow moulder, Krones has once again made significant improvements on the predecessor version in many areas. Innovative heating systems and technologies save up to 11% of heating energy. Smaller spacing between heater boxes shrinks the footprint by 15%. There are

also large savings in compressed air consumption. A smart three-stage compressed air recycling system cuts blow moulder air input by up to 20%.

A newly developed technology also significantly reduces machine downtime by ejecting defective preforms without the machine going into emergency stop. The fourth-generation Contiform also integrates the innovative Contiloop AI process controller. The Contiloop AI artificial intelligence-based controller continuously tracks the key controller and process parameters in the stretch blow-moulding process. That guarantees top container quality, even under changing conditions. It also reduces manual effort and the scope for user error.





### ErgoBloc L: top performance, small footprint

Krones has set a new milestone in block technology with the world's first wet section PET block with an output of 100,000 0.5-litre water bottles per hour. The production sequence on the 100,000/h block is based on the conventional ErgoBloc L. However, the individual components – stretch blow moulder, labeller and filler – have been further optimised for the high-performance version. For example, the new block already incorporates parts of the fourth-generation Contiform (see page 76). The Ergomodul labeller also includes a number of additional and optimised components, functions and assemblies.



At the heart of the high-performance block are the two modular filling and capping units. Filling and capping of 100,000 bottles is thus split between two units each, but these are part of a single, unitary block.

Modulfill Dual, the filler, needs around 60 fewer filling valves than a single-filler solution with the same output. This makes ErgoBloc L even more compact – with nearly 20% higher output.

## Plant-based beverages: combined expertise

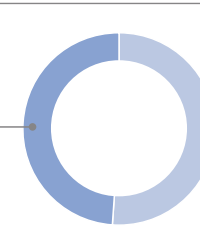
In the production of plant-based drinks, Krones benefits from extensive expertise in beverage production, handling, filling and milk processing. Subsidiary Milkron contributes its project and engineering knowhow from the dairy industry. Our standalone brewery unit Steinecker provides its expertise in processing a wide variety of grains and in controlling biological conversion processes. Applying its knowledge from beer production, Steinecker additionally places the focus on the sustainability of the entire process. Krones also benefits in the production of plant-based drinks from decades of experience in thermal product treatment and aseptic filling.



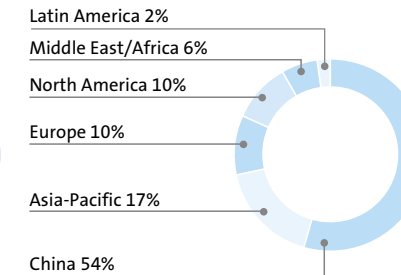
### Global consumption of plant-based drinks (2020)

Soy drinks  
51%

Plant-based drinks  
from other  
commodity groups  
49%



### The largest markets for plant-based drinks (2020)



Source: Global Data

The company boasts three different process technologies for plant-based dairy products – from a fast-to-market variant to a high-end solution for sustainable production. Krones' versatile technology enables plant-based drinks to be produced from cereals (such as oats, rice and spelt), nuts (such as almonds and coconuts) and legumes (such as soya, peas and lupins).

### VarioAsept M: gentle heat treatment

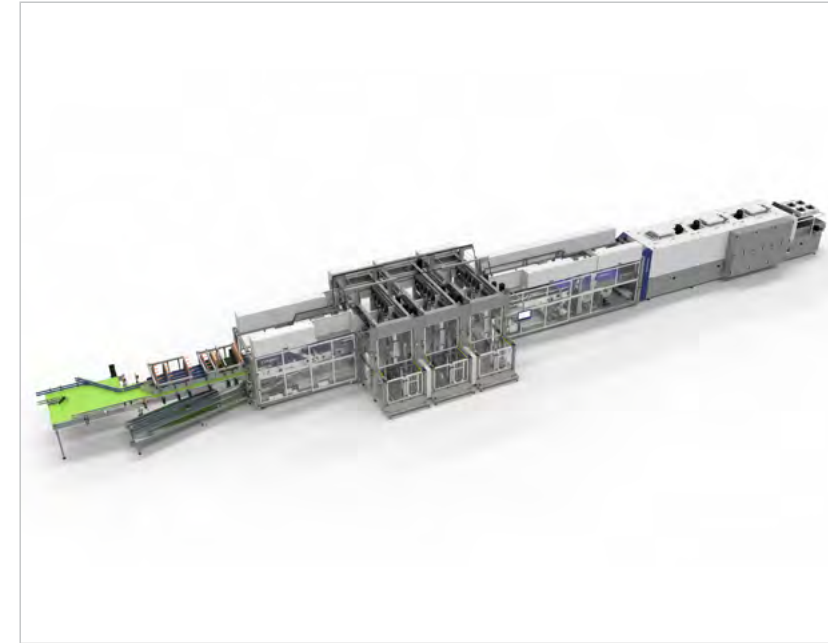
Hydrolysis is a key element in the production of plant-based beverages. The addition of enzymes controls sweetness, mouthfeel and yield. As with milk processing, heat treatment also plays an important role, requiring extremely gentle handling and maximum hygiene. Krones' VarioAsept M UHT (ultra-high temperature) system meets precisely these requirements. It heats the product quickly and briefly to 135 to 150 °C and is perfectly matched to Krones' aseptic fillers for further processing.



#### Modulfill Bloc fs-c with compact cleanroom: added value for customers

The Modulfill Bloc fs-c with compact cleanroom adds to Krones' capabilities in filling hygienically demanding products. Already well established in the marketplace, the system does outstanding service at many customers' beverage plants. This filler-seamer block combines conventional and aseptic filling technology. The sensitive product zone – the cleanroom – is kept to a minimum. Equipped with Krones' first self-developed can seamer, Modulseam, the block has an output of 96,000 cans per hour.

Adding further value for customers, many products filled on the block no longer need subsequent pasteurisation. That saves energy. The system is also quick and economic to clean. Thanks to its compact design, the block's footprint is around one-third smaller than a separately installed filler and seamer.



#### Variopac Pro for LitePac Top Protect: a sustainable packaging solution

With LitePac Top, Krones offers a plastic-free, sustainable secondary packaging alternative for non-returnable PET bottles and cans. The packaging solution is made of recyclable paperboard. This makes energy-intensive shrink-wrapping to make packs a thing of the past. As a result, it saves around 80% of carbon emissions in secondary packaging. Krones now offers this sustainable concept in several variants. In the LitePac Top Protect version for cans, the cans are additionally protected from dust and dirt by a paperboard clip.

LitePac Top Protect is applied using the Krones Variopac Pro machine platform. For this purpose, the packer is supplemented with a retrofittable module with exchangeable grippers for different paperboard clips. Depending on the set-up, the machine can process up to 108,000 cans an hour.



#### Mobile production robotics: automating material flows

Our subsidiary System Logistics has developed a mobile platform with a lifting arm and interchangeable attachments. This smart intralogistics solution enables Krones to further advance line automation. The mobile robot does the heavy lifting and accelerates the flow of material within a filling and packaging line. Its attachments can be changed automatically according to the application at hand. This makes the robot highly versatile in use. It also improves the system carbon footprint. In optimised continuous operation, the mobile robot has a smaller carbon footprint than a forklift.



## Non-financial Statement



The Non-financial Statement for the Krones Group serves as the primary means of transparently reporting the sustainability performance of Krones AG and the Krones Group. Consolidation of our group companies is done in parallel to our financial reporting. This statement contains the qualitative and quantitative non-financial information on sustainability topics that are material to the company. Unlike those within the consolidated management report, the forward-looking statements in the context of our sustainability goals are focused not only on a single year but on a far longer timeframe. We have used the Global Reporting Initiative (GRI) standards as the basis for developing the actions and figures published here. This is a combined non-financial statement for Krones AG and the Krones Group pursuant to Sections 289b et seq. of the German Commercial Code (HGB) and Sections 315b et seq. HGB for the financial year 2022.







## Performance 2022

- Despite a 34% increase in order intake, our product-related greenhouse gas emissions rose only 6% over the previous year. That is thanks to enhanced energy efficiency and a lower emission factor from electricity generation.
- We reduced our corporate carbon footprint by 22% year on year. With that, we have achieved a 46% reduction overall compared with the base year 2019 and are thus more than halfway to our target of reducing Scope 1 and Scope 2 greenhouse gas emissions by 80% by 2030.
- Greenhouse gas emissions in the upstream supply chain were down slightly year on year but still very high compared with the base year 2019.
- While hazardous waste generation across the group was flat, water consumption was up 10%.
- Our focus on continuing education for our workforce is evident in the participation figure, which was nearly one-third higher than in the previous year.
- Workplace accidents and lost days were both down year on year.
- The Krones Group employed more women, both in management-level positions and in general, in 2022 than in 2021.

Indicator	Unit	2022	2021	Change
Greenhouse gas emissions, Scope 1	t co <sub>2</sub> e	17,583	18,085	-3%
Greenhouse gas emissions, Scope 2	t co <sub>2</sub> e	9,152	16,070	-43%
Greenhouse gas emissions, Scope 3 downstream (products)	t co <sub>2</sub> e	6,287,635	5,695,768	+6%
Greenhouse gas emissions, Scope 3 upstream (supply chain)	t co <sub>2</sub> e	605,290	611,776	-1%
Water consumption	m <sup>3</sup>	202,366	183,534	+10%
Hazardous waste	t	1,660	1,657	0%
Expenditure for charitable donations and sponsoring	€	1,113,745	803,880	+39%
Participation in continuing education opportunities	Absolute	60,318	45,900	+31%
Workplace accidents per 1 million hours worked	Rate	7.31	8.78	-17%
Lost days due to workplace accidents per 1 million hours worked	Rate	150.55	162.90	-8%
Share of women (employees covered by and exempt from collective agreements)	%	16.7	15.9	+5%
Share of women in management in general	%	10.6	10.4	+2%

The indicators presented here relate to the Krones Group but only make up part of all sustainability-related figures we track for Krones AG and the Krones Group. The percentages marked in green show a positive change with respect to sustainability, while those marked in red show a negative change.



## Sustainability management

### Sustainable business strategy

The sustainability goals of the Krones Group are integrated into our corporate strategy. Our new corporate vision, “**Solutions beyond tomorrow**”, shows how sustainability drives our company. The Krones Group wants to do its part to build a sustainable world, and we view digitalisation as a means to enable sustainability in both our own value chain and our customers’ business.

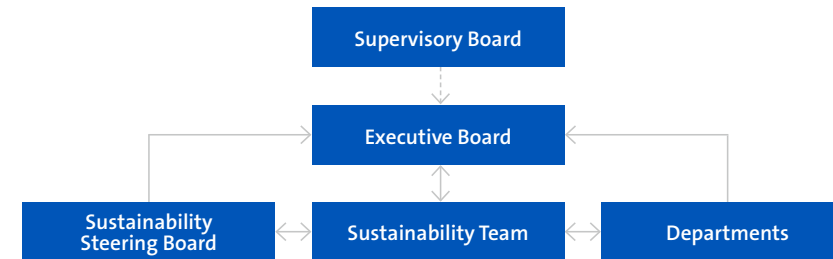
Efficient and environmentally friendly technologies for safe, high-quality beverages: That is the mission that the Krones Group has set itself in terms of product sustainability. Consumers are making sustainability part of their buying choices more than ever before, and so our customers rely on us to provide sustainable solutions for their production operations.

We work continuously to improve the efficiency, longevity and eco-friendliness of our products and services while also increasing the sustainability of our own operations and value creation processes. We firmly believe that a consistent approach to sustainability will help us leverage **new opportunities for growth**.

### Sustainability governance

Sustainability management within the Krones Group is steered and coordinated by a central Sustainability Team, which serves as the main body for sustainability strategy, controlling and reporting **along the entire value chain**. At the heart of the team’s work is its cooperation with the departments and experts responsible for material sustainability topics.

The Sustainability Team is part of Corporate Research and Development and thus reports to the Executive Board member responsible for International Operations and Services. Parallel to that, the Sustainability Team and Sustainability Steering Board report directly to the CEO.





**Strategy:** The Sustainability Team's core responsibilities with respect to strategy include conducting materiality and risk analyses, reporting on sustainability to the Executive Board and coordinating the Sustainability Steering Board. In the latter, representatives from the management of central units consult on our strategic alignment with respect to sustainability and formulate suggestions and recommendations for the Executive Board.

**Controlling:** The Sustainability Team also serves as the controlling and monitoring body for environmental, social and corporate governance (ESG) matters. Besides consolidating sustainability-related performance metrics across the group and monitoring progress toward our targets, that also entails conducting regular reviews with the departments. Surveys, ratings and rankings on sustainability are processed centrally and results shared with the departments.

**Reporting:** When it comes to sustainability communications, the Sustainability Team works together with Corporate Communications to prepare content for the various channels – for both internal and external stakeholders. The Non-financial Statement, which is approved by the Executive Board, describes the material sustainability aspects. Additional information is available on the sustainability pages of the corporate website.

### Sustainability executive reviews

Since the end of 2022, the Executive Board has held coordination meetings on sustainability topics at six-week intervals so as to bring the management of our sustainability objectives into the top tier of company leadership. In these meetings, the **key sustainability performance indicators** are tracked and strategic decisions made regarding the company's sustainable development.

### Executive Board remuneration linked to sustainability

Sustainability aspects are included in the policies that govern Executive Board remuneration. As of the financial year 2022, Scope 1 and Scope 2 greenhouse gas emissions are part of the calculation of **long-term incentives (LTI)**. For 2022, the Supervisory Board has set a greenhouse gas emissions target as a performance criterion with a weighting of 10%. For it, targets and thresholds are set before the start of each tranche, which then serve as the basis for calculating target achievement at the end of the three-year performance period. Total target attainment can range from 0% to 250%.

For the long-term incentive, environmental, social and governance (ESG) targets will be gradually added beginning with the 2022 financial year. The ESG targets account for 15% of the target amount for the 2023 tranche. In addition to the existing greenhouse gas emissions target (Scope 1 +2), the Supervisory Board has set a further ESG target for 2023: the percentage of women in management (Krones AG and Krones Group). Greenhouse gas emissions are weighted at 70%, the percentage of women in management in the Krones Group is weighted at 20% and the percentage of women in management within Krones AG is weighted at 10%.

### Non-financial risk analysis

Under the concept of double materiality, not only are the material sustainability topics to be assessed for financial and non-financial impacts. So, too, are the risks to the company in this regard. Risks are reported and assessed quarterly within the group-wide risk management processes carried out by Finance. The **"outside-in"** risks to the company that are identified in this process are then assessed by the Sustainability Team for potential negative impacts that the company can have on sustainability topics (**inside-out**). For the financial year 2022, the analysis revealed no risks with a high likelihood of an event and severe negative impact with respect to the company's own business activities, business relationships, products or services.





## Materiality analysis

The materiality matrix for the Krones Group was revised in 2022. Consistent with the concept of **double materiality**, a longlist of sustainability-related topics along the entire value chain was identified and assessed against both the potential impacts of the company's activities on the outside world (impact materiality) and the internal impact the issues can have on the Krones Group's financial performance and its ability to create economic value for investors and share-

holders (financial materiality). For the impact-materiality assessment, we have surveyed customers, financial market participants, suppliers and our own employees for their views. Together, the Sustainability Steering Board and the Executive Board assessed the financial materiality of the individual topics. The resulting matrix was adopted by the Executive Board and is comprehensively updated every three years, although any changes are reviewed annually.

Dimensions and areas		Suppliers	Operations	Customers	Consumers
Environment	Carbon emissions	●	●	●	
	Use of resources		●		●
	Water consumption			●	
Society	Labour and human rights	●	●		
	Employee well-being		●		
	Diversity		●		
Governance	Digital responsibility			●	
	Business conduct		●	●	

*The three different circle sizes reflect the relative materiality of the topics.*



## Sustainability goals through to 2030

The Krones Group's sustainability goals were officially adopted by the Executive Board in 2020. Unless noted otherwise, the goals use 2020 as the base year and **2030 as the target year** and apply across the group. The goals are to be reviewed

as needed based on new materiality analyses, legal and regulatory requirements and stakeholder interests. The sustainability goals are currently undergoing review as part of the new materiality analysis.



### Environment

**-80%**

Reduce greenhouse gas emissions in our operations (base year: 2019)

**-25%**

Reduce greenhouse gas emissions in our upstream and downstream value chain, with a focus on purchased goods and the use of our products (base year: 2019)

**-10%**

Reduce hazardous waste generation and water consumption in our operations

### Society



Take action to promote diversity in our workforce



Motivate our employees by offering an attractive working environment with opportunities for personal development

**-30%**

Reduce the number of work-related accidents and resulting lost days

### Governance

**0**

Pursue a zero-tolerance policy with respect to compliance and human rights violations along our entire value chain



Evaluate critical suppliers against sustainability criteria and use raw materials more efficiently

**100%**

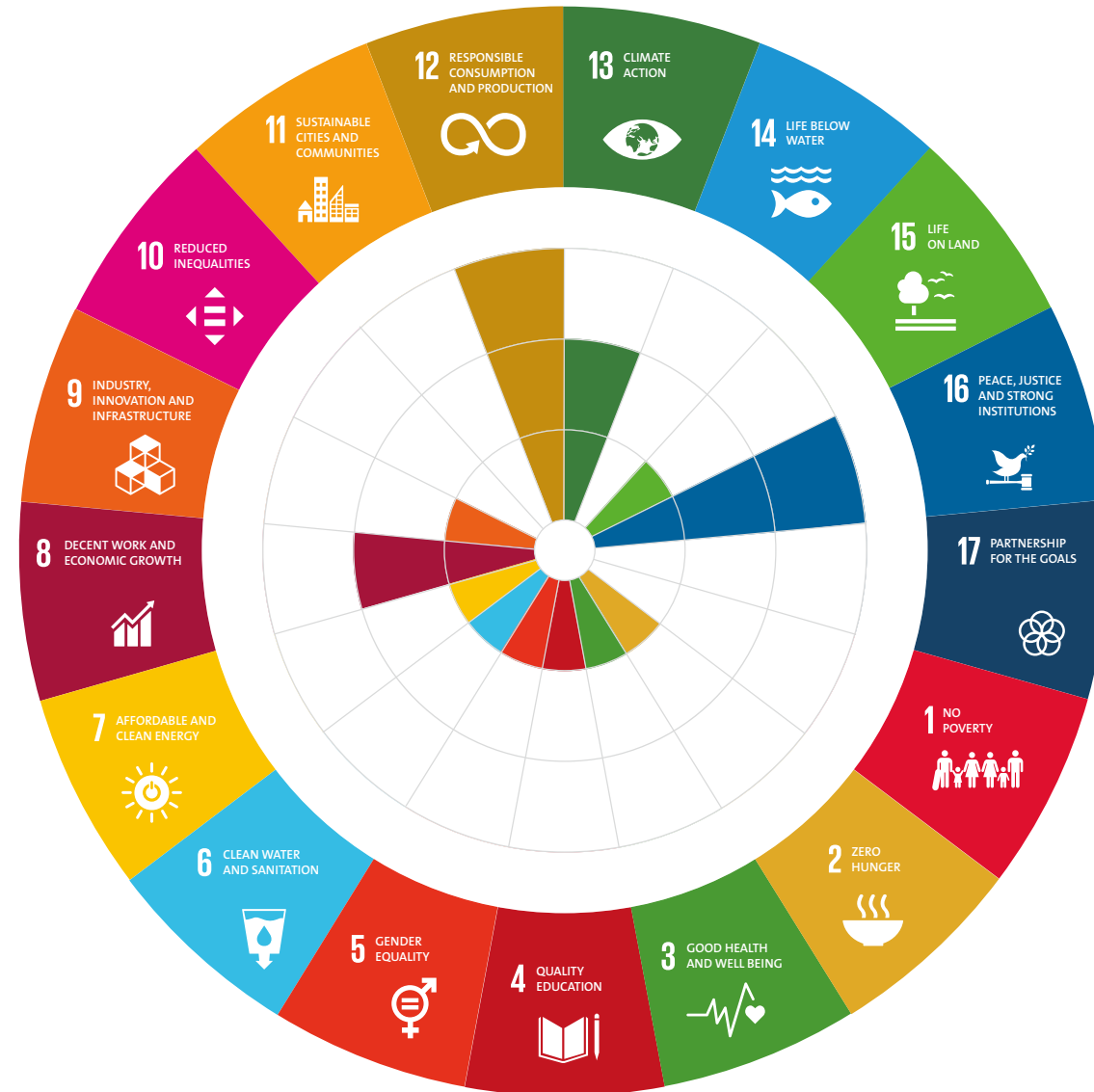
Ensure the confidentiality of personal data and establish a state-of-the-art IT security architecture along our value chain



## Contribution to the UN Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) are considered the most important set of global targets for sustainable development. The 17 goals were published in September 2015 as part of the UN's Agenda 2030. They articulate the key challenges and resolutions of a global sustainability policy and thus serve as a guide for the **sustainable development** of society, culture and the economy.

Because it is part of global value chains, the Krones Group also influences economic, environmental and social developments – sometimes directly and materially and sometimes only indirectly and to a small extent. As part of our revision of the materiality matrix, we have therefore analysed the SDGs to which we currently **contribute** and to what extent – based on the goals, policies, actions and metrics described in this statement.





## Sustainability network

We believe that we are stronger when we work together. The Krones Group has been a member of the UN Global Compact since 2012. We collaborate with other companies within our industry under a variety of sustainability-focused project groups of the German Engineering Federation (VDMA) and are an official partner to the VDMA's Blue Competence sustainability initiative. We have signed the Association of the Beverage Machinery Industry (ABMI) Sustainability Charta and work hand in hand with our competitors within this organisation towards the common goal of driving sustainability forward.

Our 2030 Climate Strategy has been officially validated by the **Science Based Targets** initiative (SBTi). We have committed to developing a net-zero emissions target and are part of the **Business Ambition for 1.5°C** campaign. We participate in recognised ratings and audits in order to ensure transparency towards customers, investors and analysts. Carbon Disclosure Project (CDP) has given us a B rating in the categories Climate Change and Water Security, and our EcoVadis Scorecard was awarded a silver medal.

### Standards



### Memberships



### Rankings



### Commitments





## Greenhouse gas emissions from our products

### 1. Impact and materiality

As a technology supplier, the Krones Group **enables** climate-change mitigation. Our machines and lines require a certain amount of electrical power and heat, primarily for the production, filling and packaging of beverages and liquid foods. Most of the greenhouse gas emissions for which we are directly or indirectly responsible are not generated at our own production sites but rather at our customers' – as a result of their use of Krones machines and lines. Because of this large impact on our customers' direct greenhouse gas emissions, our internal and external stakeholders have rated this topic as highly material – in terms of both their impact on our business and our impact on the world around us (financial materiality and impact materiality).

### 2. Risks and opportunities

The Krones Group views climate aspects relating to our Scope 3 downstream greenhouse gas emissions not primarily as a risk but rather as an opportunity. Under our new vision, "Solutions beyond tomorrow", we seek to address three global challenges – climate change, plastic pollution and food insecurity – and contribute to solving them. Our enviro products and energy consulting at the factory level are aimed at helping to **fight climate change**. By growing these business activities, we can have a positive impact on our customers' climate protection efforts – and generate revenue at the same time.

### 3. Governance and resources

The Executive Board of the Krones Group has officially adopted a **2030 Climate Strategy**. While an interdisciplinary project group discusses general topics and focuses especially on Scope 1 and Scope 2 greenhouse gas emissions, another

group made up of product specialists from the different portfolio divisions of Krones AG meets regularly to coordinate measures to reduce product-related Scope 3 greenhouse gas emissions. They act as decentralised points of contact and support for the enviro sustainability programme for energy efficient and environment-friendly machines and lines and translate the centrally coordinated sustainability requirements into shop-floor reality. Beyond Krones AG, the Product Sustainability team is in regular dialogue with the product specialists of our subsidiaries in order to promote climate and environment-related improvements to our products. Reporting of Scope 3 emissions from our products is done centrally through the Sustainability Team.

### 4. Strategy and targets

As part of our 2030 Climate Strategy, we set and published the following target for upstream and downstream Scope 3 greenhouse gas emissions in 2020:

**The Krones Group commits to reducing its absolute Scope 3 greenhouse gas emissions by 25% by 2030, from a 2019 baseline.**

The Science Based Targets initiative (SBTi) has validated this target following its official review process and officially confirmed that it is consistent with the United Nations goal of limiting global warming to **1.5 degrees Celsius**. Where the SBTi assessment is based on the established reference scenarios of the IPCC (Intergovernmental Panel on Climate Change), our Scope 3 targets are likewise based on that scenario. The Krones Group is part of the Business Ambition for 1.5°C campaign and reports annually to the CDP (Score: B).



in our supply chain



at Krones



at our customers



at the end consumer







## 5. Policies and actions

### Sustainability programme for products – enviro

For many years now, our enviro sustainability programme for machines and lines has been a key component of our product sustainability. It was developed in collaboration with TÜV SÜD and focuses on the energy and media consumption as well as the eco-friendliness of Krones machines, lines and solutions. The associated processes are established within the enviro management system. Underlying it all is the enviro manual, which defines the principles of the management system, presents the assessment criteria and thus acts as a company-wide guide for **climate-friendly product design** and optimisation.

Before a Krones machine can carry the enviro label, its energy and media efficiency and environment-friendly operation must be proven in a prescribed, well-documented testing procedure. To ensure the procedure's objectivity, a mandatory benchmark has been defined for each enviro-relevant aspect of a product, such as compressed air consumption or eco-friendliness. The benchmark criteria are to ensure that the enviro products conform at least to the Energy and Media Efficiency Environmental Sustainability (EME) standard defined by TÜV SÜD. The enviro management system and the associated testing procedure are regularly certified by TÜV SÜD, an independent verification organisation.

### Climate-friendly product development

Sustainable, climate-friendly products start in the design and development stages. Strategic portfolio planning and the continued development of new and existing Krones products is handled by Research and Development. Environmental compatibility, with a special focus on greenhouse gas emissions, is one of the key value drivers under which development projects are initiated and prioritised. The enviro sustainability programme takes an active role, integrating targeted **ecological design aspects** in the product development process. To ensure that new developments are guided by the principles of environmental

sustainability, ongoing development projects are managed by way of milestones that incorporate enviro requirements into the decision-making process.

### Investing in low-carbon technologies

Within our product development processes, we invest considerable sums and human resources in low-carbon technologies. One example is the Phoenix BMC biomass conversion system developed by our subsidiary Steinecker: This system extracts valuable compounds from a brewery's organic residuals in the form of proteins and fertilisers while enabling the remaining biomass to be used for generating power – both of which can contribute to mitigating climate change because they entail purposeful upcycling of waste in a circular economy. In what is now the fourth generation of our Contiform stretch blow moulder, we have reduced the amount of compressed air consumed in inflating PET bottles by 20%. Additionally, automation and process optimisation now prevent incorrect settings in the machine's operation, thus saving a great deal of energy – also in comparison to competitors' products. We invested several million euros in the development of this new technology, which is dubbed Contiloop AI.

The assessment of our capital expenditure projects as part of our reporting under Article 8 of the EU Taxonomy Regulation enables us to validate and publicly communicate our **climate-relevant research and development spending** in accordance with a third-party-standardised process.

### Carbon footprints and lifecycle assessments

We are currently reviewing options for systematically running lifecycle assessments (LCA) and carbon footprint (CF) analyses for our own products. Each of the machines and lines we sell is unique. The tools currently available for LCA and CF analysis have only limited scope for assessing such individualised products. At present, our application of lifecycle assessments is focused on our customers' products: the containers into which beverages and liquid foods are ultimately filled. We use recognised tools to calculate the **environmental performance of packaging** in various sizes, shapes and weights – mostly with respect to different



packaging types like returnable PET, non-returnable PET, glass, cans and secondary packaging. In that way, we make it possible for our customers to choose the most sustainable packaging solution for their individual business situation and market. Moreover, if our customers request it, we calculate the emissions that our machines generate while in operation and help to reduce emissions by supplying enviro-certified machines or by providing an optimised connection to heating systems.

#### Energy and media consulting at the factory level

Energy consulting at the factory level is an essential part of our efforts to reduce greenhouse gas emissions at our customers' plants. Whether it's for an existing factory or for planning a new one, the consulting team helps our customers reach their sustainability targets for Scope 1 and Scope 2 – which in turn lowers our own Scope 3 downstream greenhouse gas emissions. Our range of consulting services covers the development of **decarbonisation strategies**, process optimisations for improved energy use, utilities audits, production schedule optimisation, material analyses and classification for packaging, integration of an energy management system and even consulting on funding options.

#### Cooperation and collaboration with customers

When it comes to climate change mitigation, we interact with our customers through a variety of channels: We report on our carbon footprint directly to our downstream business partners each year through various individual surveys, standardised tools and established **rating and ranking systems** (such as CDP and EcoVadis). We also directly discuss the possibilities for collaborating on climate and environmental protection with any and all interested customers. In these talks, which are typically initiated by our customers, we can develop various approaches to suit the individual situation: There are always options for optimisation when it comes to lifecycle service, energy supply and utilities. Our Sales team offers webinars on specific topics relating to sustainability, with a frequent focus on reducing greenhouse gas emissions.

#### Internal training and awareness campaigns

Our **global Sales team** is a major factor for bringing sustainable products and services to our customers. For that reason, team members receive training on the latest sustainable approaches – especially in the run-up to major trade fairs and events. For drinktec, the premier trade fair for beverage technology worldwide, the Sustainability Team, product specialists and our Sales organisation prepared detailed training courses on product-specific sustainability topics, with a focus on climate change mitigation. The training documentation and videos were aimed at all employees but specifically at those in Sales and those manning the Krones booth at drinktec. Additionally, we use expert training courses to ensure that our own specialists from our Product Sustainability and Factory Planning teams have the most up-to-date information about energy and emissions. In December, for example, we held a three-day training course on technical energy management through an external service provider.

#### “Product end-of-life” manual

The principal objective of Krones Lifecycle Service is to make the service life of our machines and lines at our customers' plants as long as possible – for instance through retrofits, maintenance and other services. Despite our best efforts, though, every product's useful life will ultimately come to an end at some point. Since the end-of-life processing of our products also makes up part of our performance when it comes to greenhouse gas emissions, we try to support our customers here, too.

We have compiled information about the different paths that our machines and lines can take at the end of service in a product end-of-life manual: The most basic idea is simply the **disassembly of the products** and the reuse of their materials. In addition, customers are given detailed machine manuals that provide specific instructions for disassembly and disposal of machines at the end of their service lives. When the equipment is properly dismantled, valuable materials such as stainless steel, electrical wiring and brass can be recovered completely and recycled for further use.



Together with our subsidiary ecomac, we offer a company-specific programme for **refurbishing used machines** with original spare parts. After a machine is taken offline, deinstalled and refurbished, it can either be returned to the customer or sold to a new customer. In addition, we recently entered into a formal partnership with a recycling company that can provide official documentation of the **recycling of materials** salvaged from products scrapped by ecomac.

The aim of the manual is to enable proper decommissioning, deinstallation and disposal of the machine so as to conserve resources, prevent waste and ultimately reduce emissions.



Public low-carbon transition plan



Stakeholder communications

#### Public policy

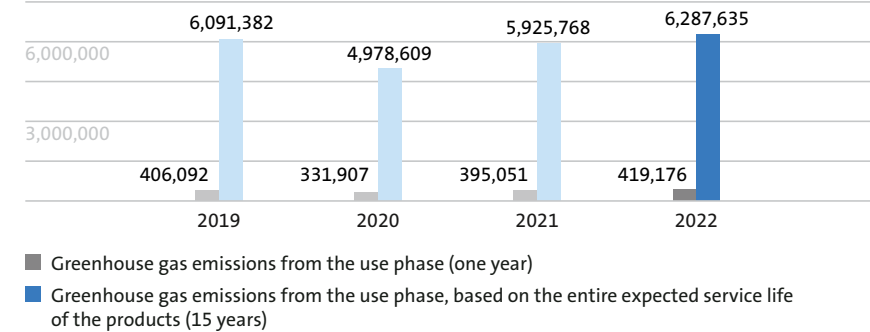
The Krones Group does not directly influence political processes but does act as a supporter and as a source of feedback and input for the political work of the German Engineering Federation (VDMA). As part of our involvement in the Sustainability and Energy working group, we take a stance on draft legislation and political debates.

## 6. Key performance indicators

All greenhouse gas emissions figures published in this statement have been measured in accordance with the provisions of the **Greenhouse Gas Protocol**.



Krones Group – Greenhouse gas emissions, Scope 3,  
from the use phase of our machines and lines (metric tonnes CO<sub>2</sub>e)  
(Scope 3 category 11 per GHG Protocol)



*The Scope 3 greenhouse gas emissions reported here are based on new machinery sales at Krones AG and Steinecker GmbH. That is a coverage of over 85%. To calculate the emissions from our machines and lines, we assumed an average useful life of 15 years.*



## Greenhouse gas emissions in our operations

### 1. Impact and materiality

The Krones Group releases greenhouse gas emissions along its entire value chain. The majority of these emissions are indirect – that is, upstream and downstream of our own production. Nevertheless, because we are an industrial manufacturing company, we do also consume a significant amount of energy for **power, heat and transport** at our production sites, which can only be sustainable if the energy comes from renewable sources. In the 2022 materiality analysis, the impact materiality of greenhouse gas emissions in our operations was rated as medium by stakeholders, and the financial materiality was rated as high.



in our supply chain



at Krones



at our customers



at the end consumer

### 2. Risks and opportunities

In 2022, we commissioned an analysis of our twelve largest production sites based on the relevant science-based **climate scenarios**. Some of our locations are exposed to climate-related risks in one of the following three risk categories: heat, flooding and wildfires. The scenario analysis is based on data-driven climate projections of the IPCC (Intergovernmental Panel on Climate Change), using the RCP 8.5 (worst-case scenario) as the physical reference model. The results of the analysis, like the climate and environmental risks reported by our various departments and sites, flow into the existing enterprise risk management system.

### 3. Governance and resources

Overarching coordination of the climate strategy adopted by the Executive Board is handled by an **interdisciplinary project group** made up of representatives from the central Sustainability Team and Production. In monthly meetings, the progress of ongoing measures is analysed and further steps are defined.

Reporting to the Executive Board is done on an ad hoc basis, but no less than once per quarter, either by way of the Sustainability Steering Board or in direct meetings with one or more members of the Climate Strategy project group.

### 4. Strategy and targets

The group's climate strategy defines the following targets for reducing **Scope 1 and Scope 2** greenhouse gas emissions:

The Krones Group commits to reducing its absolute Scope 1 and Scope 2 greenhouse gas emissions by 80% by 2030, from a 2019 baseline.

This climate target has been validated by the Science Based Targets initiative (SBTi) and certified as being consistent with the 1.5-degree target. As stated above, the Krones Group is part of the Business Ambition for 1.5°C campaign and reports annually to the CDP (Score: B). The Scope 1 and Scope 2 target is a performance metric used to determine Executive Board remuneration.



### 5. Policies and actions

#### Environmental and climate policy

A formal group-wide environmental and climate policy firmly establishes our priorities with respect to environmental and climate protection in our operations both strategically and organisationally across the Krones Group. The policy document makes the strategic alignment of our environmental and climate management transparent for all external stakeholders and defines a clear framework for everyone involved within the Krones Group. An internal set of standard operating procedures (SOPs) based on the new environmental



and climate policy defines the environmental standards, topics of focus, and respective goals, processes and responsibilities within the Krones Group. The environmental and climate policy and corresponding SOPs serve as internal rules and are based on the Krones Code of Conduct as its underlying policy document.

#### ESG assessment within the capital expenditure approval process

To drive investment in energy-efficiency and climate-protection measures in our operations, we established a new process in 2022 that enables applicants and controllers to flag capital expenditure requests as ESG-related. After a review by the central Sustainability Team, ESG-related capital expenditure requests are given a **“green flag”** for the subsequent approval and budgeting process. The goal is to promote the consideration of more than purely economic return-on-investment calculations in the overall assessment of climate-relevant investments. Since most investments are currently focused on buildings and infrastructure within the Krones Group, the new ESG review in the first stage makes it easy to identify investments that may have a positive impact on reducing Scope 1 and Scope 2 greenhouse gas emissions.

#### Coordinated action planning

The measures aimed at reducing direct (Scope 1) and indirect (Scope 2) energy-related greenhouse gas emissions can be divided into three main action areas: energy efficiency, own generation and energy procurement. To facilitate the climate strategy project group's coordination and tracking of measures across the Krones Group, we have developed an action plan that includes a **timeline and milestones** to reduce greenhouse gas emissions. The plan shows the measures, the expected impact in terms of emissions reductions and the associated monetary costs and thus serves the Executive Board as a basis for decision-making.

#### Energy efficiency measures

In order to better monitor energy consumption in our production, we are implementing various measures in our plants worldwide which can be attributed directly as energy-efficiency optimisations at the machine and business-unit levels. That includes, for instance, installing heating coils in the existing combined heat and power (CHP) plants or replacing ceiling lights with energy-saving LED panels that are equipped to automatically dim and switch off lights in areas that are not currently in use. Likewise, adding heat exchangers has made it possible to recover waste heat from existing production equipment and thus further increase the overall efficiency of the systems. Fitting machines and utilities with **smart meters** and recording the relevant energy streams in real time also contributes to increased energy efficiency.

#### Own generation of renewable energy

Sustainable energy supply and the expansion of our own renewable power and heat generation capacities – combined with intelligent energy management – are at the heart of our efforts to reduce energy-related greenhouse gas emissions. We have made generating our own electricity from renewable sources a priority in our company climate strategy and are currently running a number of projects in this context. **Photovoltaic systems** are in use at our subsidiaries Gernep (Germany) and System Logistics (Italy), supplying those sites with green power that is generated on site. A photovoltaic system on one of the parking garages at Krones' headquarters in Neutraubling is currently in trial operations.

#### Green energy procurement

Since the financial year 2022, we have been buying 100% **green power** with guarantee-of-origin certificates for the Krones AG production sites in Germany. This is a significant lever for reducing our Scope 2 greenhouse gas emissions. At our major international sites, too, we are planning to transition to buying only green power.



### Going electric with our vehicle fleet

At Krones AG headquarters in Neutraubling, 95 electric-vehicle charging stations were installed and brought online in 2022. The introduction of an electric-vehicle charging infrastructure for additional sites in Germany is in the planning (Nittenau and Flensburg) and implementation stages (Rosenheim and Raubling). In Neutraubling, the existing **charging infrastructure** is being further expanded in early 2023. Projects aimed at transitioning to electric vehicles are underway at other production sites as well.

### Carbon offsetting

The Krones Group's 2030 Climate Strategy includes carbon offset certificates for climate mitigation projects as the lowest priority, below energy efficiency, own generation and buying green power. Offsetting does not currently play a role in figuring our emissions performance and will not do so in the near future.

### Training and awareness campaigns

One means of reducing energy and heat consumption is to provide regular employee training on the topic. As an example, Krones AG employees complete a mandatory basic training session each year in which they must respond to specific questions about **conserving energy**. In 2022, a special memo went out to staff on conserving energy in light of the Ukraine-Russia conflict. As part of the existing audit and certification processes under ISO 50001 and ISO 14001, we additionally conduct regular employee training on energy and environment topics at our ISO-certified sites. Another way we raise awareness among our workforce is regular internal reporting on the progress of our climate strategy through the various internal communication platforms.

### Audits, certifications and internal reviews

Internal reviews are conducted as part of the process of collecting Scope 1 and Scope 2 emissions data for our non-financial reporting: An energy expert from the Sustainability Team reviews the metrics and documentation provided by the energy experts at the respective production sites and runs plausibility checks on them, noting any errors or ambiguities. For the future, we plan to sharpen the focus of our internal review process on sustainability topics, specifically climate and environment aspects.

The Krones Group's climate strategy applies for all production sites worldwide, for a total of 24 entities. Data collection and implementation of measures are the local responsibility of the international sites involved, while data validation and coordination of measures are carried out centrally. Energy management at the German production sites of Krones AG is **ISO 50001** certified. Our production site in Taicang, China, our Italian subsidiary System Logistics and the German KIC Krones branch office are certified under **ISO 14001**.

### Public low-carbon transition plan

We are currently developing a plan for transitioning to a carbon-neutral circular economy and intend to publish it in 2023. The basis will be our internal action plans and the existing confirmation of our climate strategy's 1.5-degree compatibility through SBTi.



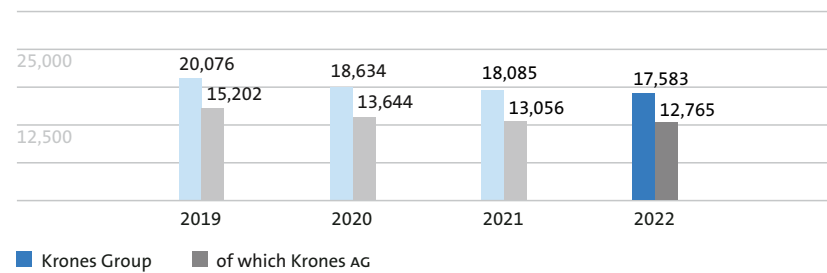
**Stakeholder communications**

The main medium through which we communicate our climate strategy and emissions performance is the Non-financial Statement, which is published annually as part of the Krones Group Annual Report and is publicly available on our website. In addition, we communicate our climate-related key performance indicators on our corporate website under the heading “Sustainability”. We use internal communication channels to regularly inform our workforce about the progress of measures and metrics. Externally, we use social media, the Krones magazine and press releases to keep our external stakeholders apprised of our climate strategy.

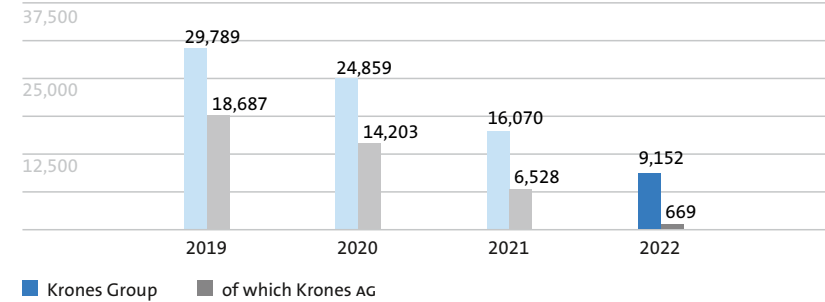
**6. Key performance indicators**

At present, data reporting for calculating our key performance indicators is done annually, although we would like to soon transition to quarterly data collection. As defined in our 2030 Climate Strategy, the metrics include the data for the Krones Group’s 24 production sites and are based on the principles of “materiality” and “impact”.

Krones Group – Greenhouse gas emissions, Scope 1 (metric tonnes CO<sub>2</sub>e)

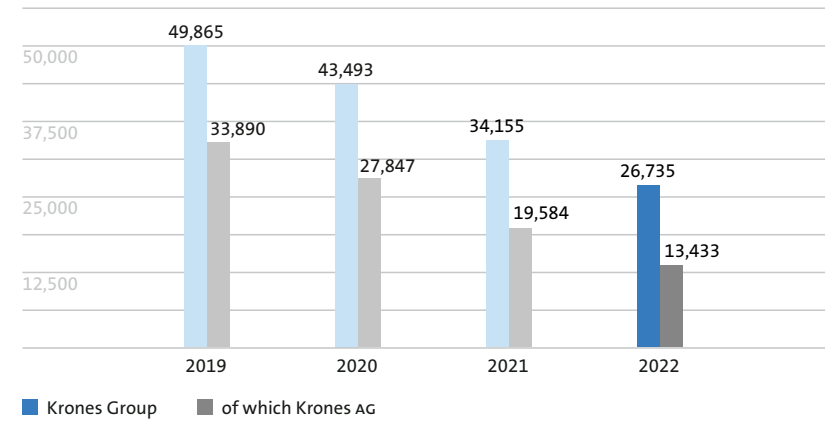


Krones Group – Greenhouse gas emissions, Scope 2 (metric tonnes CO<sub>2</sub>e)



*The greenhouse gas emissions are measured using the market-based method. Wherever market-based emissions factors were not available for certain locations, we have used the generally recognised location-based emission factors.*

Krones Group – Greenhouse gas emissions, Scope 1 and Scope 2 (metric tonnes CO<sub>2</sub>e)





## Greenhouse gas emissions in our supply chain

### 1. Impact and materiality

The products of the Krones Group consist primarily of four materials: stainless steel, steel, aluminium and plastic. The extraction, manufacture and processing of these **materials** is energy-intensive. Parts and services that we purchase from our suppliers also generate greenhouse gas emissions in our upstream supply chain. Because these emissions make up a relevant share of our total emissions, the topic of climate change mitigation in the upstream supply chain was given a medium rating under both aspects of the materiality analysis.

### 2. Risks and opportunities

We worked with a third-party provider to assess our risk with respect to greenhouse gas emissions in our upstream supply chain. Using their data-base-supported tools, we leverage information that is already available within our company – specifically, **monetary procurement data** with country, industry and the product group we obtain from the respective Tier 1 suppliers – to identify greenhouse gas emissions hotspots. This risk analysis also shows us whether and to what extent these direct suppliers' upstream supply chains are likely to release large amounts of greenhouse gas emissions. It likewise serves as a tool for monitoring our Scope 3 upstream metrics until we begin collecting primary emissions data from our suppliers (something that is currently in the planning stage).

### 3. Governance and resources

Strategic responsibility for sourcing lies with the head of Corporate Procurement, who reports directly to the Krones Group CFO. Because the Sustainability Team is where our expertise for decarbonisation lies, Procurement and Sustain-

ability work together closely to address the topic of greenhouse gas emissions in the upstream value chain. Additionally, the **Supply Chain Governance Board** – which consists of decision-makers from Corporate Governance, Procurement, Supplier Quality Management and Sustainability – convenes once per quarter to discuss compliance and sustainability issues in the supply chain.

### 4. Strategy and targets

Analogously to the target for reducing greenhouse gas emissions from our products, we also want to reduce greenhouse gas emissions in our supply chain:

**The Krones Group commits to reducing its absolute Scope 3 greenhouse gas emissions by 25% by 2030, from a 2019 baseline.**

As mentioned above, our climate targets apply to the entire group, are consistent with the 1.5-degrees pathway according to Science Based Targets initiative (SBTi) criteria and are based on recognised climate scenarios.

As another qualitative target for a more sustainable supply chain, the Krones Group has set the following goal, which we hope will have a positive impact on reducing upstream greenhouse gas emissions:

**Increase the material efficiency and sustainability of the raw materials used in the manufacture of our products.**



in our supply chain



at Krones



at our customers



at the end consumer





## 5. Policies and actions

### Climate protection in our Supplier Code

The Supplier Code, which applies group-wide, is the policy document for environmental and climate protection in the supply chain. If there is documented non-compliance with these rules, we work with the supplier to determine **corrective action**, which may go as far as termination of the business relationship. Analogous to the Code of Conduct, the Supplier Code contains specific requirements with respect to environmental and climate protection in the sections “Sustainability” and “Quality, health, safety and environment”.

### Review of environmental offences



To ensure our due diligence in the supply chain, Corporate Governance continuously performs **due diligence audits** on existing and new suppliers. By way of an online tool, existing and new suppliers to the Krones Group can be checked for non-compliance with environmental and climate-protection rules. The resulting findings are first examined by experts from Corporate Governance and then – after an assessment by the Supply Chain Governance Board – forwarded to the appropriate office within Procurement and Supplier Quality Management.

### Supplier surveys with questions on climate matters

Our Supplier Quality Management team systematically uses questionnaires as a tool for vetting suppliers and raising awareness. During the registration process, potential suppliers are first asked to provide general information about their company. Then, **suppliers are vetted** on the basis of specific criteria depending on the product group. Topics relating to environmental sustainability are also made part of this process for certain supplier groups through a standardised questionnaire. Suppliers are generally only approved after they have been completely vetted and deemed qualified.

## Collaboration with suppliers

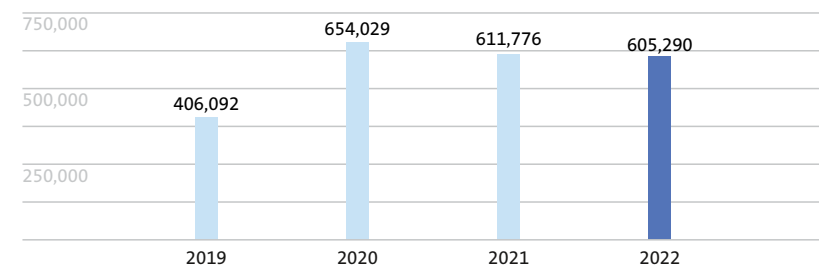
In an effort to present **one face to the supplier**, the Procurement team member responsible for each supplier serves as the primary point of contact. Until now, we have conducted individual talks with suppliers on energy and climate topics. A systematic approach to sustainability-related communication with those suppliers that our risk assessment has identified as highest-risk for high greenhouse gas emissions is currently in development.

### Environmental topics in product and system audits

Once a business relationship is established, suppliers are evaluated on a regular basis. For example, selected suppliers’ environmental management is reviewed through risk-based product and system audits. The focus is on possible weaknesses, risks and improvement potential of the audited environmental management systems.

## 6. Key performance indicators

Krones Group – Greenhouse gas emissions, Scope 3, from the upstream supply chain (metric tonnes CO<sub>2</sub>e), (Scope 3 categories 1-6 per GHG Protocol)



*The Scope 3 greenhouse gas emissions reported here are based on purchasing volumes of Krones AG and other sites and subsidiaries within the Krones Group. The calculation of the emissions is based on specific country factors from a generally accepted database.*



## Resource use by end consumers (circular economy)

### 1. Impact and materiality

Our products make up a significant part of the supply chain for packaged beverages and liquid foods – whether they are sold in glass bottles, plastic containers or cans. As part of this supply chain, the Krones Group also bears responsibility for what happens to the containers produced or filled on our equipment after their use by end consumers. The Krones Group uses various products, business activities, research projects and partnerships to contribute to a **circular economy for valuable resources** like PET, glass, tin and aluminium. Here, too, as on the topic of climate change, we enable our customers. Given this context, the financial materiality of resource use by end consumers was rated as high in our materiality analysis whereas stakeholders viewed Krones' impact as low.

### 2. Risks and opportunities

The circular economy presents both risks and opportunities for the Krones Group. The risk relates to the fact that we have generated a large share of our revenue in recent years from the sale of production lines for non-returnable PET containers. If plastic packaging is banned in certain regions of the world because of the negative effects it has on ecosystems if not disposed of properly, that would have a noticeable impact on our business. On the other hand, we would like to seize the opportunity to serve as an active driving force for the transition to a circular economy: One of our areas of focus when it comes to sustainable products is **circular economy solutions**, which is dedicated especially to our products for PET and PO recycling, our eco-friendly packaging concepts and the ecological design of our machines and lines.

### 3. Governance and resources

The product areas working on circular economy solutions generally work independently of each other but do collaborate on both a regular and an ad hoc basis. The interdisciplinary collaboration among those involved is done in two-week intervals as part of the **PET Initiative** and ultimately benefits the PET business unit. Members include representatives of Recycling Solutions, Research and Development, Lifecycle Service, Marketing, Sales, Sustainability and the subsidiaries IPS and MHT. The head of Plastics Technology coordinates the initiative and reports regularly to the Executive Board member responsible for International Operations and Services. Within Research and Development, the Sustainability Team also drives an innovation program on **sustainable packaging**, about which it reports once monthly to the two leading bodies within R&D.

### 4. Strategy and targets

We have adopted the following target for our efforts around circular economy in our 2030 sustainability goals:

**Contribute to a sustainable packaging economy: Our lines can handle all types of sustainable packaging. Virgin materials – including those from bio-based sources – as well as up to 100% recycled material can be processed without loss of efficiency.**

In addition to these general, qualitative goals, the departments involved have also set their own goals against which they measure their contribution towards target attainment.



in our supply chain



at Krones



at our customers



at the end consumer



## 5. Policies and actions

### MetaPure: Recycling solutions

Krones has been closing the lifecycle loop for PET bottles since 2009, with MetaPure technology. The portfolio includes dedicated modules for washing and decontamination. At its core, the recycling of PET containers to flakes or pellets is done in two modules: The washing module, MetaPure W-PET, provides pre-treatment, a caustic wash and a hot post-wash while the decontamination module, MetaPure S, takes care of decontamination and solid state post-condensation (SSP) for increasing the intrinsic viscosity. Additionally, we offer direct further processing of the **recycled material** to preforms, films or pellets – to different material qualities all the way up to food-grade PET according to the standards of the FDA, EFSA and other certificates.

Besides PET, our systems can also recycle polyolefin (PO) plastic. Unlike PET, PO is lighter than water and therefore requires a different process. Because the containers can also absorb the smell of the products they once held, their recycling requires technology that is designed to handle precisely these issues. Krones offers recycling systems for converting PO containers to flakes. These systems also include a washing module, the MetaPurew-PO, for intensive pre-cleaning and hot post-washing. Through our cooperation with partners, we also offer end-to-end solutions that include technology for **further processing** the PO flakes.

Alongside the washing and decontamination modules, Krones also provides solutions for complete recycling plants. In this regard, we benefit from our own in-house recycling expertise as well as factory planning and project management – because we can then assume overall responsibility for the projects with very few interfaces. For front-end and utilities components, which are not part of Krones' own portfolio, we rely on long-standing partnerships with suppliers.

### rPET compatibility of PET systems

In order to dispel reservations sometimes expressed in the industry against using rPET, we conducted a series of tests analysing, among other things, the working properties, quality, and food safety of various virgin and recycled materials that are common on the market. Already, all new PET filling lines are capable of processing bottles made of up to **100%** high-grade recycled material without compromising on quality, efficiency or effectiveness in production.

### LitePac Top: Plastic-free secondary packaging

Today, packs of cans or PET bottles are often held together with shrink wrap or plastic rings. The latter have been banned in some maritime regions because they pose a threat to wildlife when disposed of improperly. With LitePac Top, we offer an **environment-friendly alternative** to both of these packaging types. It consists of a cardboard clip for cans and a cardboard clip plus strap for PET bottles. LitePac Top requires less energy and material to manufacture than shrink film and can be made of recycled materials. To cover the widest possible range of applications, we added more variants to the LitePac Top series. We are now able to offer alternative secondary-packaging solutions containing no single-use plastics whatsoever for all common multipack formats.

### Support for recyclable packaging design

Krones uses its technological expertise to support clients in designing forms of packaging that are optimally suited for recycling. Besides the technologies for manufacturing and processing recycled material, we also offer a range of supplementary services. For example, we employ a team of specialists to address every issue relating to both design from recycling and design for recycling. The material and design experts in our PET Packaging Development and Consulting department engineer material-saving, recyclable packaging – both on a contract basis for customers and for our own research purposes. As part of our “enviro



Design” programme, we evaluate **packaging innovations** from our own development against criteria that have been determined in collaboration with TÜV SÜD. The aim is to minimize the various environmental impacts of food and beverage containers, not only reducing greenhouse gas emissions but also preserving ecosystems and biodiversity.

#### Lifecycle assessments for product packaging

We would like to give our customers easier access to the multitude of options for achieving sustainable production that promotes a circular economy. We offer our customers science-based advice about which packaging variant is the most sustainable for their applications. The toolset we use includes a software-based solution that allows us to compare the environmental impacts and establish meaningful **environmental performance reports** for individual packaging solutions.

#### Switching from linear production to a circular economy

Clients get the support they need in order to also achieve optimum results on existing lines when handling recycled or renewable materials. In order to increase the potential for **returnable PET containers**, we ran a research project in collaboration with Alpa on the use of refillable PET containers for sensitive beverages. As of this writing, returnable PET containers are considered a niche topic worldwide. In particular, producers of sensitive beverages like juices and milk shy away from this container type due to hygiene concerns. That is why we launched a series of tests in our development plant, analysing the interaction of different bottle designs and cleaning processes. Among the findings: If the right parameters are selected – in particular, for caustic concentration, temperature, additives and mechanical impact – it is possible for temperatures around 60 °C to be sufficient to reliably remove even dried-on protein, fat and starch residues from containers.

#### Tethered Caps

Under the **EU Single Use Plastics Directive**, tethered caps (i.e., closures permanently attached to the bottle) will be required by law in the European Union from July 2024 onwards. Krones analysed developments on a number of markets and entered into partnerships with various cap manufacturers. As a result, the Krones Group is able to deliver technology solutions for all of the tethered cap variants on the market. The first customers have already switched over their Krones lines.

#### Resource-friendly labelling

For optimised recycling outcomes, Krones has packaging solutions in its portfolio that make it easy to remove labels from empty containers. Our long-term goal is to recycle labels right along with the containers or to eliminate the need for a separate label for container dress. We offer various solutions for implementing bottle decoration and labelling while also achieving material savings. For example, the Contiroll can handle **extra-thin labels** with a thickness of less than 30 micrometres without difficulty and the Sleevematic manages sleeves as thin as 35 micrometres – in some cases perhaps even thinner.



### Container decoration with direct printing technology

Customers who would like to dispense with additional materials entirely can decorate their containers using direct printing technology from our subsidiary Dekron. The advantages of direct printing are many: With it, you can not only implement completely new design possibilities but also personalize the decoration of individual containers within a batch. Moreover, the printing inks can be completely removed from containers in the recycling process, leaving **no residues**.

### Beyond PET packaging

Beyond conventional PET solutions, Krones is proactively pursuing development projects connected with disruptive technologies that take beverages to the consumer in innovative ways (e.g., packaging-free solutions, **paper bottle**). Krones' Innovation Lab is especially engaged with this field.

### Member of the European Circular Economy Stakeholder Platform

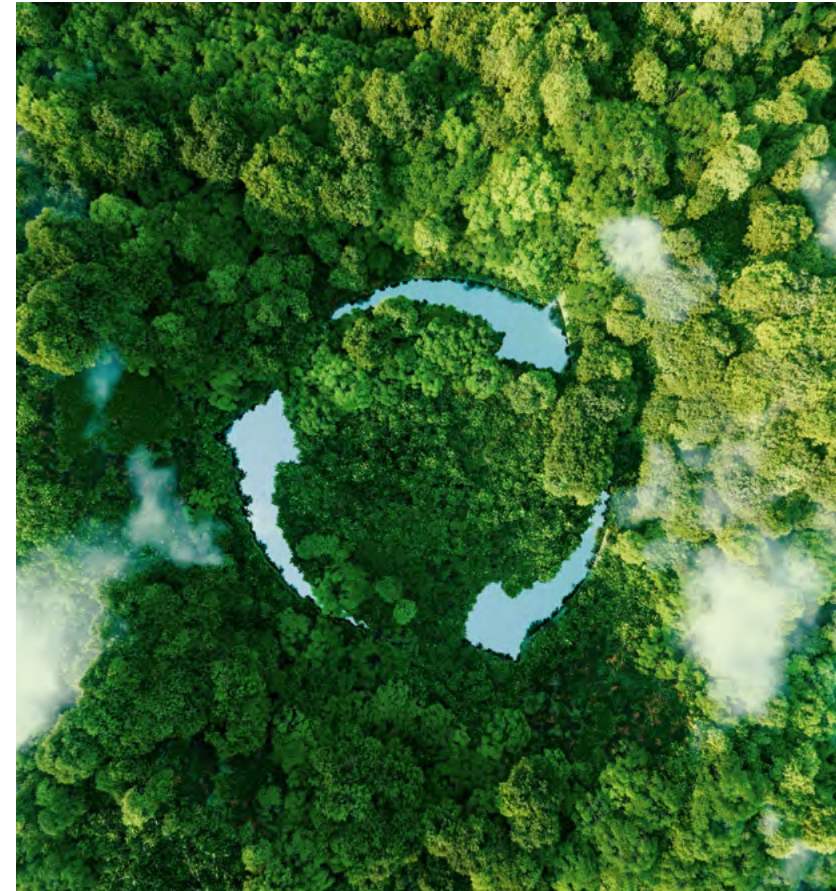
The Krones Group has been a member of the European Circular Economy Stakeholder Platform since 2020. This joint initiative of the European Commission and the European Economic and Social Committee (EESC) brings together companies and initiatives that seek to promote a circular economy in Europe. In joining the platform, Krones has entered into a voluntary commitment to several qualitative targets.

### Communications and awareness campaigns

The pros and cons of plastic packaging are a **fiercely debated** topic to which Krones contributes its voice. A large-scale awareness campaign on the production, use and recycling of plastics in 2019 was the starting point for intensive communications work. Since then, we have regularly published articles on plastics and the circular economy in the Krones magazine and on social media.

## 6. Key performance indicators

As part of a sustainability strategy review that is currently ongoing, we are working to define and develop meaningful metrics that can help up to make the progress of circular-economy efforts measurable.





## Resource use in our operations

### 1. Impact and materiality

The production and manufacture of machines and lines consumes water and generates waste. Besides the impact of our operational activities on energy and emissions, we also view water consumption and **waste generation** as additional key environmental sustainability topics. The largest share of the waste arising from our production activities is reused, recycled or scrapped conventionally. With respect to our ecological footprint, waste types that are considered “hazardous” under Annex III of the Basel Convention are critical. Therefore, and due to the fact that this topic is rated as medium in the materiality analysis, we have made it a strategic focus.

At the same time, we are also striving to conserve water in our manufacturing processes. Our focus here is on protecting the **drinking water** supply, which has become a particularly precious resource in times of climate change. Although the topic of water consumption in our operations was given a low priority rating in both aspects of the materiality analysis, we have opted to report on it nonetheless. Because using our products involves water, we want to likewise mark water in our own production as a strategic resource-conservation topic.

### 2. Risks and opportunities

Environmental risks with respect to water and waste are reported and handled by the heads of the respective production sites. They flow into the group-wide enterprise risk management system and are assessed based on the maximum loss associated with a risk, the relative financial impact and the likelihood of an event. The Sustainability Team then runs an inside-out assessment to determine the effects of the reported risks on the environment.

### 3. Governance and resources

Coordination of water and waste management across the group is done by the environmental management organisation of Krones AG. The head of Environmental Management reports directly to the CEO of the Krones Group. Because the requirements will be different due to unique physical geography and environmental laws applying to each site worldwide, the initiative for implementing water-conservation and waste-reduction efforts within **production processes** is taken by the respective local offices and subsidiaries. The effectiveness of actions is measured as part of the Krones AG Environmental Management team’s annual process of checking and consolidating data.

### 4. Strategy and targets

As part of our 2030 sustainability goals, we set and published the following environmental targets in 2020:

**The Krones Group commits to reducing its hazardous waste generation and drinking water consumption by 10% by 2030, from a 2020 baseline.**

### 5. Policies and actions

#### Environmental and climate policy

#### Training and awareness campaigns

Training on environmental protection in our operations is an important part of our efforts to reduce the ecological impact of our production. Krones AG employees complete a mandatory basic training session each year that involves questions on how to conserve natural resources like water. The processes





prescribed under ISO 14001 also require regular employee training on environmental topics, including water and waste, at our certified sites. Regular reports on our progress towards attaining our sustainability goals are published through internal communication channels.

#### Audits and certifications

The water and waste targets of the Krones Group apply to the global production sites, a total of 24 entities. Data collection and implementation of measures are the local responsibility of the international sites involved, while **data validation** and coordination of measures are carried out centrally. As described in the section on greenhouse gas emissions in our operations, our production site in Taicang, China, our Italian subsidiary System Logistics and the German KIC Krones branch office are certified under ISO 14001.

#### Data collection and consolidation across the group

The water consumption data is collected from meter readings and utility bills. **Mapping** of waste flows is done by way of examining the quantities disposed of per type of waste and, in the case of hazardous waste, the electronic documentation procedures as required by law. Analogous to the internal review of Scope 1 and Scope 2 emissions, we use dual verification in validating the water consumption and waste generation metrics.



#### Water

##### Reusing process water

The more water we are able to recycle within our own production and manufacturing processes, the smaller our negative impact on **local ecosystems** will be. Process water is reused multiple times over in the Neutraubling (Krones AG) and Freising (Steinecker GmbH) plants, where cascaded rinsing is used for electroplating processes. Several other sites employ ultrasonic baths. Cooling systems, whether for buildings or technical processes, generally operate in a closed loop.

At our Freising plant (Steinecker GmbH), buffer tanks for process water – for instance, for pressure-testing containers – make it possible to reuse water again and again. In our two largest production plants, Neutraubling and Nittenau (both Krones AG), water used in vibratory finishing processes for deburring is cleaned in centrifuges and recycled.

#### Measures to reduce water consumption

Wherever we use water and cannot recycle it, we want to keep the volumes as low as possible. At our Neutraubling and Nittenau sites, water is treated in evaporators and ultrafiltration systems in order to make possible a longer service life or reuse. Where water-soluble coolants are used – primarily in our Flensburg plant – we are converting to minimum quantity lubrication (MQL) and measures aimed at increasing the lubricants' service life through **monitoring**, separation of leakage oil, and constant ventilation. In that way, we reduce the amount of water used in production, both for preparing new cooling lubricants and for cleaning machines in preparation for refilling. The distribution network for mains water is being made progressively smaller so as to reduce the number of regular flushings required to maintain safe drinking-water quality.

#### Wastewater discharge

Wastewater arising from production is discharged in accordance with the regulations applicable at all of our production plants. Where the local infrastructure allows, the water is fed into municipal water treatment facilities. Stormwater is primarily directed into the natural subsoil so as to help **replenish groundwater** and offset the negative effects of soil sealing.

#### Monitoring water quality

Regular testing of wastewater quality from various relevant systems – for instance weekly checks in our electroplating shop – enable us to **track** water quality. The measurements are taken both on-site and off-site, either under contract by laboratories or unannounced by the appropriate authorities.



## Waste

## Waste handbook

A handbook containing information and instructions on the proper disposal and removal of waste in internal production processes, is in force at the Krones AG sites. Implementation is the respective departments' responsibility. Workplace safety specialists perform spot checks during **workplace inspections**.

## Measures for internal waste reduction

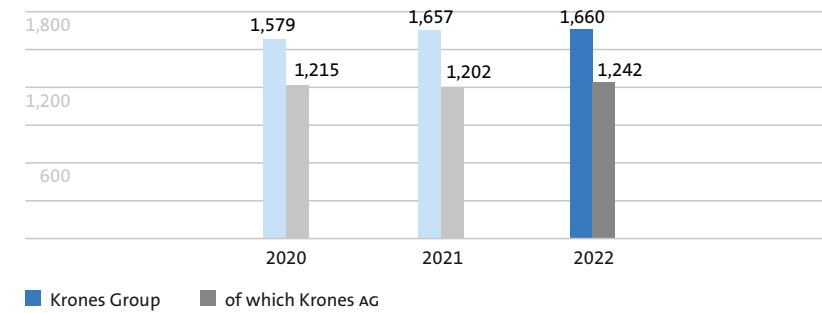
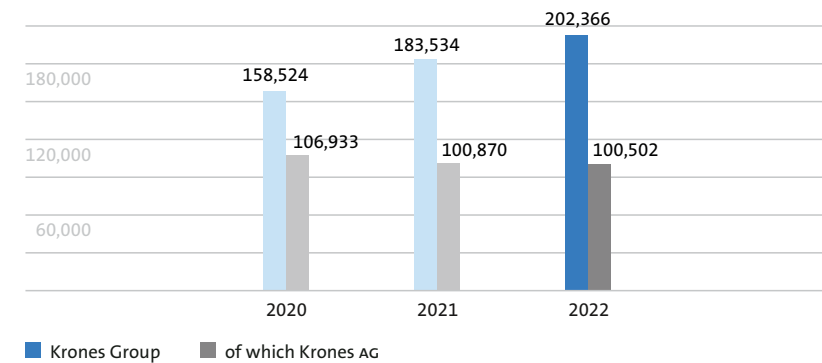
In the production process, we use circular packaging wherever possible. When removing old office equipment, we strive to ensure its **reuse** in a new context: For instance, PC monitors are lent, at no cost, to employees for their home use. Retired telephones are systematically collected and returned to the manufacturer.

## Infrastructure for separating waste

Under our waste policy, labelled bins are set out in the production areas, into which employees are required to properly separate waste fractions. In addition, Krones AG has on-site collection stations that break down assemblies so that their components and materials can best be **separated for disposal or recycling**. We are currently piloting a new policy for waste separation in our offices at headquarters in Neutraubling.

## 6. Key performance indicators

Krones Group – Hazardous waste (metric tonnes)

Krones Group – Water consumption (m<sup>3</sup>)

*The figures presented here relate to the operation of machinery and equipment as well as buildings at Krones AG sites. In collecting this data, we have included all consumption by our own buildings. Leased buildings are only partially included since some are leased at a flat rate and these buildings are generally shared with other users.*





## Water consumption from our products

### 1. Impact and materiality

All Krones Group customers use water, whether as a raw material, a consumable or a component in their products. As for climate change mitigation, we act as an enabler of **water-saving** production, filling and packaging processes in the beverage industry, which has considerable influence on the topic of water sustainability. Nearly all Krones Group products have an impact on our customers' water use and consumption. Because of our technical expertise and many years of experience, we know where the greatest gains can be made in reducing water consumption on our process technology equipment, on our filling and packaging machines, and in entire beverage plants. Our goal is to harness this knowledge and use our machines, lines, technologies and services to make a noticeable impact. For these reasons, the topic of water consumption in our customers' operations is among the highest priorities within our materiality analysis – right alongside downstream emissions. The financial materiality is rated as high, the impact materiality as medium.

### 2. Risks and opportunities

As illustrated above, we consider the impact of Krones products on our customers' water consumption not as a risk but rather as an opportunity for our business. Growing **water scarcity** in many regions of the world has meant that the food and beverage industry views water increasingly as a valuable commodity – in both ecological and economic terms. The higher the monetary cost of water, the more our customers are prepared to invest in water-saving products and water-treatment technologies. Therefore, we believe that our offerings, as enablers of building water-friendly beverage and recycling plants, represent an opportunity for future business development.

### 3. Governance and resources

Given the diversity of products within the Krones Group, there is no across-the-board governance for water topics at the product level. Since late 2022, we have been running a project group on the topic of water and our products from within the central Sustainability Team. The group consists of representatives from a variety of product areas. Its purpose is to promote deeper dialogue among **water experts** and to pool their knowledge. Within this project group, the Sustainability Team reports to the heads of the respective product groups and the Executive Board by way of the Mid-term Planning Committee.

### 4. Strategy and targets

Besides existing, internal water-reduction targets, we currently do not communicate a water target for our products. However, we plan to introduce a product-level water target as part of our review of our sustainability goals, a process that began in 2022.

### 5. Policies and actions

#### Water within the enviro sustainability programme

Besides energy efficiency, **reducing media consumption** – and thus also conserving water – is the second topic of focus of the enviro sustainability programme for our machines and lines. Water consumption on the products assessed under enviro criteria is evaluated and prioritised in this order: reduce, treat, reuse. Machines must likewise meet the enviro criteria for water in order to carry the enviro label.





### Hydronic water treatment system

Hydronic water treatment technology is a key component of our product solutions for water, with which our customers can treat raw water – the most basic element of their product – to meet their specific needs and requirements. They can be scaled to process between five and 120 cubic metres of water per hour. By using the right combination of filter media, we are able to extend filtration cycles and minimise the frequency of backflushing needed, thus also reducing the **amount of wastewater** generated and extending the life of the filter media. The technology largely does without any cleaning chemicals since the stainless-steel design can be sanitised entirely with hot water.

### HydroCircle integrated concept for wastewater recycling

Krones and a collaboration partner developed the HydroCircle concept on the basis of the Hydronic water treatment system. HydroCircle makes it possible to turn wastewater from all process steps in a beverage or recycling plant into new process water. By considering the entire process chain and establishing a closed loop, we can reduce water consumption on a customer's line by as much as **80%**.

### Water consulting at the factory level

The Energy and Sustainability Consulting team not only develops concepts for optimised use and recycling of energy. Water management is also a key component of the consulting portfolio. Our experts develop concepts for beverage and recycling plants that enable efficient use of fresh water by recycling wastewater. Their work ranges from analysing current water consumption to measuring wastewater volumes and quality right through to identifying potential for saving water – or generating power – from water treatment. The goal is to save on fresh water and reduce consumption of primary energy so as to ultimately reduce operating costs at our customers' factories.

### Lavatec bottle washer

The bottle washer plays an important role in the ecological design of a beverage plant where returnables are involved. Depending on the product, used beverage containers are often heavily soiled. In the case of milk, this soiling includes fats and proteins that are difficult to dissolve. In order to minimise consumption of water and cleaners, the technology and processes used in a bottle washer will be individually tailored to the application at hand. For a customer in the dairy industry, we were able to demonstrate that the Lavatec D4 uses **30%** less water and **15%** less caustic compared to its predecessor model.

### Flexible filling for water-saving changeovers

For beverage producers filling multiple different beverages on their Krones lines, changeovers to a different product have until now required complex and water-intensive cleaning procedures. With the new **flexible filling** technologies, it is now possible to minimise both production downtimes and the amount of water used for cleaning. In this way, customers can now save up to 80% on cleaning water compared to previous systems.

## 6. Key performance indicators

As part of the sustainability strategy reviews that are currently underway, we are working to define and flesh out meaningful indicators that will enable us to make our progress towards reducing our customers' water consumption more transparent.



## Labour and human rights in our operations

### 1. Impact and materiality

The Krones Group operates globally. Generally speaking, there are legal standards for labour, pay and workplace safety in the countries where the company operates. Because we are an industrial enterprise with a significant share of **physical labour** involved at our production sites, ensuring safe working conditions is essential. Many of our employees in manufacturing and assembly perform physically strenuous work that entails hazards. In the materiality analysis, the topic of labour and human rights in our operations was rated medium in terms of both impact and financial materiality.

### 2. Risks and opportunities

We are currently reviewing the susceptibility of our business activities to human rights violations, in two ways: First, we are conducting a compliance risk analysis in which we ask targeted questions about human rights and labour practices. Second, with a focus on occupational safety, we are carrying out workplace inspections and hazard assessments. Our sites and technical departments, which operate autonomously for the most part, derive their occupational-safety risk assessments and action items directly from these actions. We have intentionally not defined centralised, group-wide processes for **hazard assessment**, to allow our sites to respond flexibly to local conditions. The results of the labour, human rights and occupational safety analyses, like those of the decentralised hazard assessments, are used in condensed form in Enterprise Risk Management's group-wide risk assessment.

### 3. Governance and resources

Through its daily activities Human Resources ensures that labour standards and processes are followed and establishes measures to monitor compliance. As of the end of 2022, the head of the corporate Sustainability Team acts as the **Human Rights Officer** officially appointed by the Executive Board and serves in an advisory and monitoring capacity. From an organisational perspective, occupational safety management at Krones AG is part of Human Resources. At our sites abroad, is often rooted in a central health, safety and environment role. The Human Rights Officer and head of Corporate Safety and Security report to the Executive Board on an ad hoc basis, at least once per quarter.

### 4. Strategy and targets

As part of our 2030 sustainability goals, we have defined an overarching goal for respect for human rights:

Pursue a zero-tolerance policy for human rights violations and raise awareness across the board through effective human rights management – consisting of policies, risk analyses, measures, remedial action and reporting.

Specifically for occupational safety, we have set two targets against which we measure our performance in terms of occupational safety management across the group:

Reduce both the number of work-related accidents and the number of lost days following workplace accidents per one million hours worked within the Krones Group by 30% (compared with the base year 2020).



in our supply chain



at Krones



at our customers



at the end consumer



## 5. Policies and actions

### Code of Conduct

Respect for human rights makes up a central chapter of the Code of Conduct of the Krones Group, which describes and prescribes standards of conduct. The Code of Conduct includes fictional examples to clarify what a human rights violation might look like. It also obligates all group employees to respect human rights and report any violations. The Code of Conduct is a binding document across the group, and non-compliance of any kind or severity can result in **disciplinary action**.

### Human rights policy statement and group-wide guidelines

Besides the overarching Code of Conduct, we are currently developing an external human rights policy statement, which communicates the company's principles and commitment to respecting the human rights of all stakeholders along the entire value chain. The internal human rights and labour standards policy, which was established in 2020 and has been communicated within the group, firmly anchors those principles in our day-to-day operating processes and work flows. It defines a **basic set** of rules that apply in every one of the Krones Group's establishments unless other legal or regulatory provisions go beyond them. Both documents have been adopted by the Executive Board of Krones AG and approved by the Works Council of Krones AG but also apply across the group. Both have been communicated internally. We also publish an annual statement on the UK Modern Slavery Act on our website.

### Representation and participation

All employees within Krones AG are represented by local site-specific works councils that, together, make up the Central Works Council. Beyond that, the **Group Works Council** covers Krones AG plus the subsidiaries Evoguard and Steinecker. All of the companies named above have recognised the framework collective agreement of the Bavarian metals and electrical industry. The works councils of the subsidiaries Gerneq, HST, Dekron, MHT and Milkron are formally independent but maintain communication with the Group Works Council. Beyond Germany's borders, employees of the international sites formally and legally establish their employee representation individually. Within the global Krones network, representatives of the Group Works Council maintain contact with the managing directors, plant managers and local unions of the major international manufacturing sites. In individual cases, employees from sites and subsidiaries also turn to the Group Works Council, which then works to resolve conflicts and questions.

### Recruiting

No persons younger than age 15 work within the Krones Group. Those individuals working within the group who are under age 18 are doing so as part of their technical, commercial or other vocational training. These young people are not exposed to production processes that involve high hazard potential. The costs associated with recruiting employees of all types across the Krones Group are borne by the company.



### Fair pay

Across the group, workers are paid, at a minimum, the local minimum wage. Market benchmarking is done on a regular basis to ensure that our pay rates are attractive and in line with market standards. For Krones AG employees who are covered by collective bargaining, the **framework collective agreement** for the metalworking union IG Metall applies. Information about processes for wage or salary determination, pay-grade assignment and payment within Krones AG can be found through the company intranet or requested from Human Resources. Overtime hours worked by those paid under union-negotiated terms are offset with either additional time off, which is tracked in a working time account, or through monetary compensation. Work performed on Sundays and public holidays is subject to special overtime-pay rules. For employees who are exempt from collective agreements and have no working time account, there are also options for requesting special time off.

### Performance bonus scheme

At our subsidiaries, employee bonuses that are based on the company's performance are regulated decentrally by the subsidiaries themselves. Within Krones AG, all employees receive performance bonuses specific to their employee group. These bonuses are linked to the attainment of company goals. In addition, special performance or achievements among exempt employees are incentivised with **spot bonuses**.

### Working hours and work location

The basic principles of how working times are structured apply uniformly across the group: Every employee receives a certain number of paid vacation days each year based on the legal and, if applicable, collective-bargaining provisions of the respective country. Employees are not to work more than ten hours per day at the most, and there must be at least one rest day after seven consecu-

tive work days. Beyond these fundamental group-wide rules, working times and locations are arranged specifically to the location. In the locations belonging to Krones AG, the guideline for **mobile (remote) working** is currently 50%.

### Protective measures and equipment

The company provides protective gear to those employees within the Krones Group who work in areas where safety is a particular concern. That includes equipping them with tools to protect against noise as well as instruction on documented procedures for handling chemicals and hazardous substances. For specific employee groups, a **health check-up** is required in advance of certain activities that entail risk potential. We use regular workplace inspections and internal safety-specialist reviews to ensure compliance with established standards for protective measures and equipment.

### Training and guidelines

Aspects relating to human rights and labour topics are covered by various internal training programmes and e-learning courses within the Krones Group. "Compliance basics" is an e-learning course that covers questions about fair working conditions and is mandatory for all employees across the group. "Human rights at Krones" is an awareness training programme that deals exclusively with topics of human rights due diligence and must be completed by employees who are in regular contact with third parties. Employees receive regular trainings on occupational safety risks and on safe behaviour in the workplace. Within Krones AG, annual **basic instruction** also includes detailed information and guidelines on aspects of occupational safety. At the other locations within the Krones Group, such trainings are held on an as-needed basis and for specific risk groups. Besides our own employees, Krones also trains temporary workers in occupational safety aspects. Service providers and contractors, too, receive appropriate safety instructions.



## Channels for reporting and feedback

Krones Integrity is an online portal through which employees, business partners, and third parties can submit tips about human rights or occupational safety violations – either anonymously or with contact information. It can be accessed from the corporate website. There is a separate reporting category within the system for such violations. Employees can also contact the Krones Group Compliance team by email or phone and know that their inquiries will be handled with discretion and brought to resolution. The existing reporting channels are communicated internally and are **accessible (barrier-free)**. Moreover, the Group Works Council and the employee representatives elected or appointed within each of our sites also act as the points of contact for employees in the event of work-related complaints.

## External audits, certifications and internal reviews

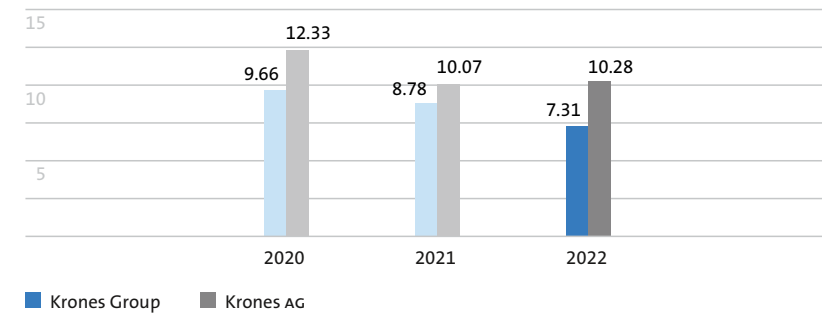
As part of the regular audits conducted across the group, the Internal Audit team reviews the administration and processes relating to wage and salary payment for errors or discrepancies. An additional, external audit of our internal processes relating to human rights and labour due diligence is conducted as part of external social audits, which are initiated by customers. In order to put our occupational safety management on the same footing across the group, we are working to get all production locations certified under **ISO 45001**. Our production site in Taicang, China, our Italian subsidiary System Logistics and the German branch office Evoguard are already certified under ISO 45001.

## Procedure in the event of internal violations

In critical human-rights or labour-standards cases, the respective investigating body will make a formal statement. In this way, critical findings can be better documented and tracked. Various roles and bodies within the Krones Group coordinate the handling of critical cases depending on the type of situation. If there are irregularities within our own workforce, Compliance, Sustainability and Human Resources will work together closely to resolve them.

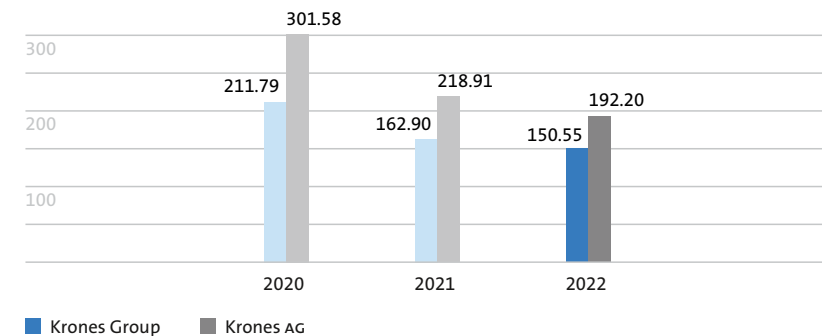
## 6. Key performance indicators

Krones Group – Workplace accidents per 1 million hours worked



*This figure is based on employees covered by and exempt from collective agreements, apprentices, trainees, interns, and working students at Krones AG and does not include temporary workers or contractors. It only includes the number of workplace accidents (excluding commuting accidents) in the current calendar year.*

Krones Group – Lost days following workplace accidents per 1 million hours worked



*Lost days from 1 January 2021 to 31 December 2021 are calculated from the first day lost as a result of the accident and are attributed to the accident. Lost days include every full calendar day (including holidays and weekends if these are included in the certification of the person's incapacity for work). Lost days resulting during the calendar year due to earlier workplace accidents are also included in the calculation.*



## Labour and human rights in our supply chain

### 1. Impact and materiality

As the markets have become increasingly globalised, the Krones Group has steadily grown its global footprint through regional sourcing of materials, components and services. Besides the strategic benefits like cost efficiency, closeness to customers and increased use of the expertise of our employees worldwide, this has also resulted in sustainability-related impacts. The relocation of supply chains to the regions brings with it new risks of labour and human rights violations – particularly in countries with less regulation. That is why the Krones Group significantly expanded its internal processes for **human rights due diligence** even before the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz, LKSG) became law. Both the impact and financial materiality of this topic were rated as medium in the materiality analysis.

### 2. Risks and opportunities

To gain greater transparency with respect to sustainability risks in our global supply chain, we conducted a database-supported risk assessment with a focus on human rights and greenhouse gas emissions. The most recent human rights assessment was done in 2021. With the help of an external service provider, the Krones Group's supplier base was evaluated on the basis of purchasing volume, country of origin or production, and the products and services delivered. The results help us to identify potential **risk hotspots** with respect to human rights abuses in our upstream supply chain – not only for Tier 1 suppliers but also deeper down the supply chain. The new risk assessment serves as the basis for further steps such as targeted surveys, audits or development reviews with suppliers.

### 3. Governance and resources

Corporate Procurement, which reports directly to the CFO, is the hub for all aspects of procurement management. The Supply Chain Governance Board, consisting of representatives from Procurement, Supplier Quality Management, Corporate Governance and the Sustainability Team, coordinates human rights management in the supply chain. As part of our preparations for the **German Supply Chain Due Diligence Act (LKSG)**, a project group was formed in parallel to the Board and met weekly to examine existing human rights due diligence processes and measures for their maturity and to spearhead any necessary improvements.

### 4. Strategy and actions

The human rights due diligence goal stated in the section on “Labour and human rights in our operations” also applies along our entire value chain:

**Pursue a zero-tolerance policy for human rights violations and raise awareness across the board through effective human rights management – consisting of policies, risk analyses, measures, remedial action and reporting.**

Additionally, in the interest of establishing a sustainable supply chain we have set the following goal:

**Evaluate 100 percent of suppliers who account for purchasing volumes of 1,000,000 euros or more against sustainability criteria by 2030.**



in our supply chain



at Krones



at our customers



at the end consumer



## 5. Policies and actions

### Respect for human rights in our Supplier Code

In the group-wide Supplier Code, the section entitled “Respect for human rights” defines the **requirements** on our suppliers. The expectations with respect to human rights due diligence are communicated transparently into the following subcategories: prohibition of forced labour, prohibition of child labour, humane working conditions and no discrimination, regulated working conditions, and freedom of assembly and association. Besides the obligations, the Supplier Code also addresses possible sanctions, penalties for breach of contract, auditing rights and reporting channels in the event of infringements. By accepting the general terms and conditions, suppliers also commit to the Supplier Code. This process is currently undergoing review, to transition from a passive commitment to the Code to an active commitment.

### Human rights training for Procurement

In 2022, a dedicated training course on human rights at Krones was launched specifically for employees who are in regular **contact with third parties**. The aim is to build internal knowledge about what human rights due diligence means in the context of doing business. In several modules, labour and human rights topics are discussed, fictional case studies assessed and potential solutions presented. One focus group for this training – as relates to internal risk assessments and the entry into force of the German Supply Chain Due Diligence Act – is Procurement. As a first step, the training has been implemented within Krones AG. The group-wide rollout is planned for 2023.

### Due diligence audits on human rights violations

In order to identify any human rights violations in the upstream supply chain, the Compliance team conducts regular due diligence checks which include findings on any labour or human rights violations, legal proceedings or sanctions. The tool used pulls data from publicly available sources of all kinds. Due diligence findings trigger the involvement of the Supply Chain Governance Board, which advises on further steps on a **case-by-case basis** and, in serious cases, may directly bar a supplier. Information on further steps is communicated to the respective Procurement team members or the regional Compliance Officer.

### Disclosure form with human rights and compliance questions

When a new supplier is onboarded, Supplier Quality Management sends out a **standardised** questionnaire for the respective product group for supplier vetting. The basic questionnaire, from which the specific versions for the different supplier groups are developed, contains targeted questions about human rights and compliance. Supplier Quality Management tracks the individual questionnaires while Corporate Governance and the Sustainability Team take care of evaluating the responses as well as the human rights and compliance documentation.

### Social audits of high-risk suppliers

Besides traditional product, process and system audits, we have also been evaluating suppliers for human rights due diligence for several years now through so-called “social audits”. These audits are conducted in a digital format by Corporate Governance and our Internal Audit team. Suppliers are selected for audit on the basis of a human rights risk analysis. The questions asked in the audit cover topics ranging from the wording of employment contracts to





the recording of working hours right through to elementary occupational safety processes and matters of employee representation. Any findings trigger a conversation in which the respective suppliers are also offered suggestions for resolving the issue. In the financial year 2022, we increased the number of social audits from previously ten per year to 24.

#### Channels for reporting human rights violations

All employees along the Krones Group's entire value chain have various means to be heard if there is a violation of human rights or fair working conditions.



Besides contacting the Compliance team or the local employee representative directly, the main point of contact is the **whistleblowing system Krones Integrity**. It is publicly accessible through the Krones website and complaints or tips about the company can be submitted anonymously. As described above, there is a dedicated reporting category for human rights with a description of the topics that fall into the category. Thus, labour and human rights concerns can be clearly marked as such right from the start. The Compliance team of the Krones Group reviews and follows up on reported issues.

#### Remedial action in critical cases

In all instances of non-compliance – whether failure to formally acknowledge the Supplier Code, critical due-diligence findings or negative results of a social audit – the Supply Chain Governance Board serves as the decision-making body. Depending on the severity, frequency and type of the violation, subsequent processes may involve supplier development, communicating with the supplier or – as a last resort – immediately barring the supplier. If there is a clear human rights violation, Procurement can trigger the barring of the supplier directly as a precaution, and must then involve the Supply Chain Governance Board.

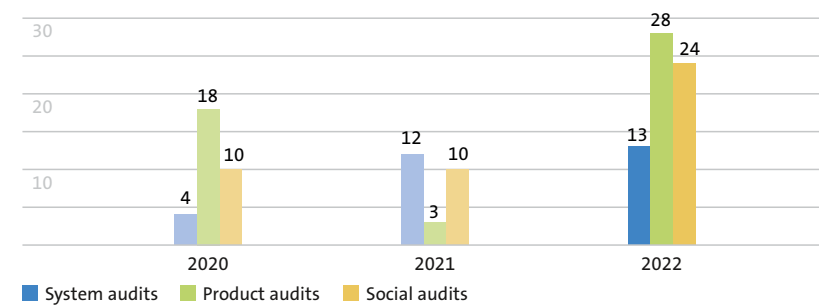
#### Industry initiatives and partnerships

Another part of our approach is to collaborate with other companies. In a working group of the German Engineering Federation (VDMA), Krones shares views and experiences with other companies on the topic of human rights and works to develop solutions. In this way, we are able to address certain challenges collectively and have a greater impact on upstream supply chains. We actively promote cooperation within our industry organisation, the Association of the Beverage Machinery Industry (ABMI), by joining forces to launch an **industry initiative** for sustainable supply chains.



#### 6. Key performance indicators

Krones AG – Number of system, product and social audits on suppliers





## Employee well-being in our operations

### 1. Impact and materiality

Krones Group employees plan, manufacture, install, sell and service technically complex machines and lines featuring sophisticated technology. For this, we need highly skilled workers with deep specialist knowledge. The Krones Group must therefore ensure an **appealing work environment** so as to gain and retain their loyalty for the long term. The working conditions that we offer influence our employees' well-being, which in turn has a powerful impact on their motivation and performance in their daily work. In the materiality analysis, the financial materiality of this topic was rated as high while stakeholders rated its impact materiality as medium.

### 2. Risks and opportunities

Human Resources investigates, records and manages the risks and opportunities relating to the satisfaction and well-being of our employees. Within our **enterprise risk management**, the head of Human Resources for the Krones Group is specified as the risk owner for HR topics.

### 3. Governance and resources

The head of Human Resources for the Krones Group charts the course for the overarching human resources policy across the group. The international sites and subsidiaries enjoy a certain degree of strategic and organisational freedom to design their HR management in keeping with local needs and conditions. Quarterly global HR network meetings address questions that span across regions and discuss the future direction of the **group-wide human resources strategy**. Reporting to the Executive Board is done on an ad hoc basis by the head of Human Resources for the Krones Group in regular meetings in two-week intervals and at Executive Board meetings as needed.

### 4. Strategy and targets

For the topic of employee well-being and satisfaction, we have formulated the following sustainability goals for 2030:

**Motivate our employees to do their best work by offering an attractive working environment that we continually improve, with a focus on working hours and work location as well as on promoting personal development alongside good health and well-being. We enable people at Krones to use their potential and further develop their capabilities – with a view to both current and future responsibilities. Our aim is to promote independent, solution-oriented action that contributes to the company's success and to employees' personal development.**

### 5. Policies and actions

#### Communication and transparency

The Krones Group maintains regular, open communication with our workforce. Employees can access relevant information through various channels such as the employee newsletter, bulletin board postings, intranet and internal social networks. At regular intervals, the Executive Board provides transparent communications about current developments and the state of the company, often in short videos that are streamed and available on the intranet. Employee-specific topics are addressed in talks with the respective managers or supervisors.



in our supply chain



at Krones



at our customers



at the end consumer



### Training and continuing education

Because of the high expectations the company has of its employees, needs-oriented staff development and training programmes are a high priority across an employee's entire career. The **training portal**, which the majority of employees group-wide can access, serves as the main point of contact for all continuing education programmes. The portal contains career-related training courses in four categories: subject-matter expertise, service training, soft skills and methods, and language acquisition. An established approval process is in place for employees to request and book these courses. It is also possible for employees to pursue broader continuing-education opportunities, for which they can apply for company support in the form of financial assistance or educational leave through a separate approval process. For Krones AG, a company agreement on qualification and continuing education serves as the basis for all measures and also involves the Works Council in the design of continuing education activities.

### Professional development for management employees

Good leadership is essential to successful human resources policy. For that reason, all new management-level employees must complete a dedicated **training programme**. We offer a variety of courses for management-level employees on all aspects of leadership, with selected courses being offered through the central budget. Moreover, managers can choose from a variety of learning formats such as personal coaching or team development measures.

### New work

As a technology company with a claim to innovation leadership, we are also examining closely the various concepts that fall under the heading of **"new work"**. Mobile working, shared-desk models and open office design are just three examples of measures we are taking in this area. Current measures focus on the use of digital technologies for collaboration. One such example is a training series on hybrid management for employees in management roles.

### Team-building and company sports

A positive workplace culture is important for employee well-being. That's why we host regular team-building events, depending on the composition, needs and individual interests of the respective team. These events are coordinated by managers and supervisors. In many of our offices and plants, there is a big annual event for all employees, the biggest of these being the **company party (Betriebsfest)** for Krones AG's main site in Neutraubling. Many Krones Group employees participate in company sports, thus enjoying a combination of team-building and athletic activity.

### Occupational health management

Beyond classic occupational safety management, Krones also takes care of employees' physical and emotional well-being. Thorough analyses of incapacity to work and questionnaire-based needs assessments are used to develop and implement targeted health interventions. Preventive measures for promoting good health are currently focused on awareness of ergonomics, resilience, preventing stress, and healthy, balanced nutrition. These are complemented by workplace inspections and adaptations aimed at enhancing and implementing ergonomics (in both production and office areas) as well as an in-house physical therapy service. Communication campaigns (for example, on colon cancer prevention) and partnerships with external healthcare providers (such as physical therapy practices) round out the offerings. Examples of current projects are the assessment of stress-related hazards and a programme on **collaborating to create a healthy work environment**. The Occupational Health Management team coordinates interdisciplinary collaboration between Human Resources, the in-house medical service, Counselling, Occupational Safety, Works Council, and the company health insurance fund (Krones ВКК). Health management activities are currently still focused on Krones AG sites.





### In-house medical service and company health insurance fund

The in-house medical service provides care to Krones AG employees, serving as the first point of contact for general medical questions as well as acute emergency situations. Besides providing acute **care**, the in-house medical service also organises health fairs and campaigns and gives travel-medicine advice and preventive vaccines. Krones' company health insurance fund (Krones BKK) is available to the employees of Krones AG and the German sites and subsidiaries.

### Counselling

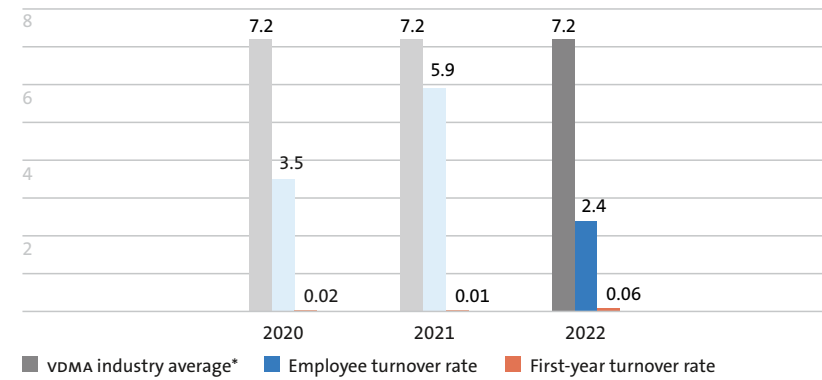
The company counselling service of Krones AG helps with problems in employees' life and work situations. A fundamental principle of the company counselling service is to not only help at-risk individuals or those in crisis but rather to support all of the company's employees. Counselling provides **first-level support** and puts employees in contact with clinics, therapists, external counselling centres, self-help groups and other support services.

## 6. Key performance indicators

The number of employees is reported elsewhere in this Annual Report.

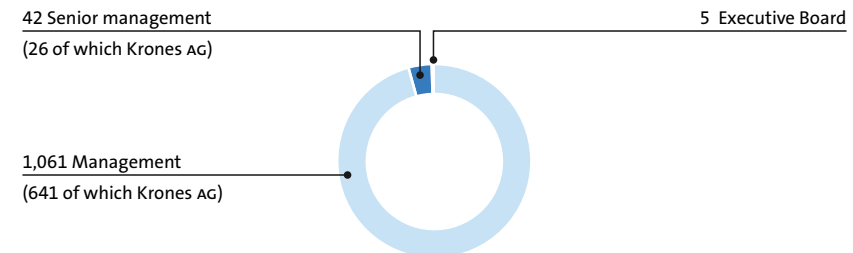


Krones AG – Employee turnover and first-year turnover  
(%, employees covered by and exempt from collective agreements)



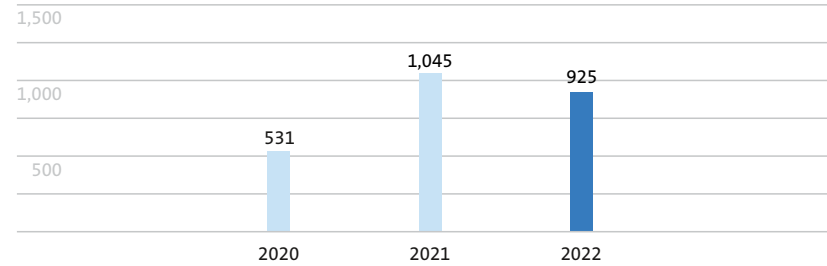
\*The German Engineering Federation (VDMA) measures average employee turnover among companies in the machinery sector on a three-year cycle. The figures above are based on the 2020 measurement.

Krones Group – Management structure in 2022

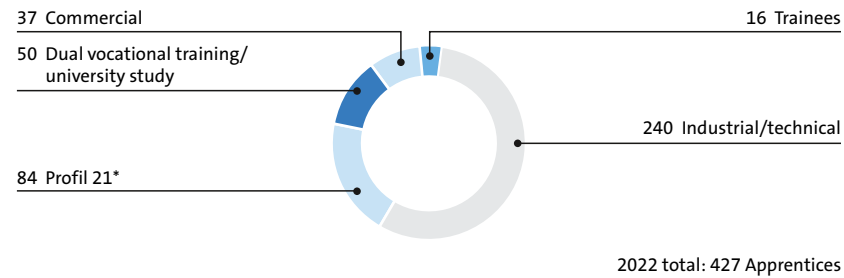




Krones AG – Temporary workers

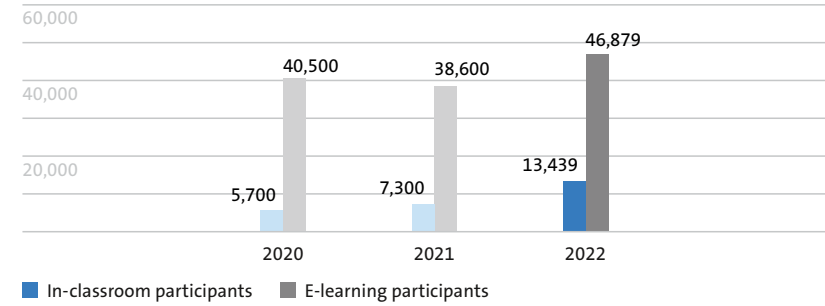


Krones AG – Vocational training participants by field in 2022



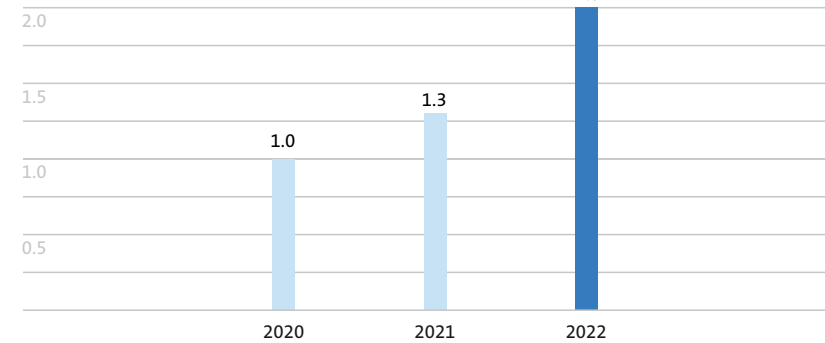
\* Profil 21 includes both professional and technical training, which gives graduates two separate qualifications at both the journeyman and master craftsman levels.

Krones Group – Participation in continuing education opportunities (rounded)



*The population of participants in continuing education opportunities reported here was redefined in 2022. Unlike in the previous years, only fully completed training courses are counted for 2022.*

Krones AG – Expenditure for training and continuing education (€ million)





## Diversity in our operations

### 1. Impact and materiality

As a technology company that does business globally, we have a workforce that reflects the world's diversity: The Krones Group employs people of all ages and gender identities, many nationalities, religions, political persuasions and other individual characteristics. Diversity is not an end in itself. Rather, it makes our company more efficient, more creative and more flexible. At present, we are finding it challenging to establish **diverse teams** everywhere in the company. There are too few women and people of different cultures in production and in management. In the materiality analysis, diversity received a low impact materiality rating and a high financial materiality rating.

### 2. Risks and opportunities

Human Resources identifies, records and manages risks and opportunities in the area of diversity. Within our enterprise risk management, the head of Human Resources for the Krones Group is specified as the risk owner for HR topics. Any reported diversity-related risks are included in the group-wide risk analysis performed by Enterprise Risk Management. At present, there are no risks related to diversity.

### 3. Governance and resources

Within its responsibility for overarching HR topics, the Executive Board of the Krones Group delegates diversity management to the head of Human Resources for the Krones Group, who sets the strategy for increasing diversity. A **Diversity Board** has served as a strategic advisory body for diversity and inclusion matters since the end of 2021. Reporting to the Executive Board is done by the head of Human Resources for the Krones Group in regular meetings every two weeks and at Executive Board meetings as needed.

### 4. Strategy and targets

As part of our 2030 sustainability goals, we have defined the following overarching goal for diversity:

Promote diversity within our workforce. With targeted programmes, worldwide talent pools, international thematic communities, and measures aimed at establishing balanced age structures, we seek to connect employees of diverse age groups, gender identities, nationalities, and career fields and thus inject more flexibility, creativity, and efficiency into our processes.

Within the Krones Group's new corporate vision, that means, among other things: "We value diversity and inclusion. We show appreciation and encourage and inspire all people, without prejudice." Krones signed the **Diversity Charter** in 2010, thus expressing the company's unequivocal commitment to promoting diversity within the group.

As a quantitative goal specifically for promoting women, the Executive Board announced a binding quota for Krones AG in 2021:

We will increase the share of women in the first two levels of management immediately below the Executive Board within Krones AG to 15% by the end of 2024.



in our supply chain



at Krones



at our customers



at the end consumer



## 5. Policies and actions



### Basic premise: Anti-discrimination

#### Preventing and addressing discrimination

The principles for preventing discrimination as well as physical or emotional harassment within the group are laid out transparently for all employees in a dedicated section of the Code of Conduct entitled “Collaborating with one another”. In addition, the policy on human rights and labour standards, the compliance basic training, and the “Human rights at Krones” training all make it clear what counts as discrimination within the company, how it is to be handled and what **consequences** such behaviour can have. Every employee can report a violation through the Compliance helpdesk or through the Krones Integrity reporting system. The Compliance team processes any reported issues.

#### Fair and transparent processes for recruiting and professional development

Application and selection processes within the Krones Group are based exclusively on candidates’ qualifications, **regardless** of gender, background, religion or other attributes or characteristics. Applicants to Krones AG can indicate their gender identity as “male”, “female” or “other”. Job advertisements and communications to applicants are worded using gender-neutral language. Both the training portal and all promotion processes are open to all employees. Management employees are urged to give all employees the opportunity to participate in training courses based on current need and personal development goals.

#### Supporting employees with disabilities

In addition to legally mandated protections that are in place for disabled and severely disabled persons in many countries, Krones AG has four representatives for people with severe disabilities, who advocate for these employees. At other locations, too, there are point persons serving in either a voluntary or mandated capacity depending on the local laws. The goal is to integrate colleagues with disability into working life in accordance with their individual abilities.



### Focus on age

#### Training young skilled workers

The vocational training options available at Krones AG include business as well as industrial and technical fields plus a dual course of vocational training and university study, trainee programmes, and Profil 21. The latter is designed for individuals who are just getting started in their careers and who are especially interested in entering the challenging field of global service. We also offer training at our sites outside Germany, in Wuhan (China), Nairobi (Kenya) and Debrecen (Hungary).

#### Continuing education for long-time employees

Our continuing education offerings also address the interests of older employees, focusing on the ideal of **lifelong learning**. Some of our continuing education programme participants have been working for Krones for decades and are pursuing additional qualification in order to unlock entirely new, promising career prospects within the group.

#### Family friendly programs

Flexible working hours and increased use of mobile working as well as – sometimes temporary – part-time employment enable employees to care for children or other family members alongside their careers. At Krones AG, a dedicated company agreement on mobile working specifies the options for supporting **work-life balance** through flexible working hours. At the Neutraubling site, Krones AG provides daycare for employees’ children from 4 months of age in a centre that was initiated by and is financially supported by the company. Similar initiatives also exist at other locations worldwide. As of 2022, employees can find specific information about care options for children and family members via an online platform.



### Partial retirement for older employees

Analogous to demographic change in general, the average age of our workforce, particularly at our European locations, is moving gradually upwards. Krones AG takes that fact into account by offering options designed specifically for older employees. Partial retirement has been an especially popular tool that we will continue to rely on in the future.



#### Focus on gender

#### Development and mentoring programmes for women

At Krones AG, we are currently piloting a professional development programme on **tandem leadership**, whose objective is to better enable women to take on leadership roles, even when working part time, with the support of a mentoring programme. Beginning in 2022, a network of women in management at Krones AG formed with the explicit goal of increasing the visibility of and promoting women with management potential. For managers and prospective managers, we use not only our own internal professional development options but also the external Women in Leadership programme of the Employers' Associations of the Metalworking and Electrical Industries in Bavaria (Bayerische Unternehmensverband Metall und Elektro e.V. – bayme).

#### Pay equality

Krones AG conducts regular **equal-pay analyses** to monitor and prevent pay discrimination. To prevent abuses and ensure equal pay, the Krones job grading system separates the person from the role in defining the pay associated with a position, independent of gender. As an equal opportunity employer, our US office bases all hiring and advancement decisions exclusively on qualifications and performance criteria.

### Communications about equality matters

We publish regular contributions on our social media channels and in our employee newsletter and the new online customer magazine that counter gender stereotypes, for example, with portraits of female employees following a variety of training and career paths. A guide to gender-inclusive language encourages employees to be open-minded and self-critical as they reflect on their own language habits.

#### Networking for the advancement of women

Besides supporting the Diversity Charter, Krones AG is also a member of the “Frauen führen” **women's leadership network**, through which we maintain active dialog with partner companies. Through it, we not only gain important insights into how we can specifically promote women in the company but also gladly share insights into our own working environment. Because the perspectives of women within the company are especially relevant here, female managers from Krones serve as presenters, sharing their experiences and views with the network.



#### Focus on culture

#### Postings abroad

International assignments make knowledge sharing possible. They are part of the professional development programme for specialist technical and management employees and they promote **cultural diversity** within the Krones Group. All process steps, from the initial consultation of all stakeholders to advertising the position abroad, calculating the relocation package, drafting legally valid contracts and providing organisational support right through to the employee's return to their home company, are coordinated centrally through Expatriate Management.





### Global exchange programme

The internal international exchange programme **Across Borders** is a special type of assignment abroad. It gives employees worldwide the opportunity to spend five to six months working in a host company within the Krones Group. The goal of the programme is to develop technical expertise at an international level, grow intercultural skills and build an international network within the group.

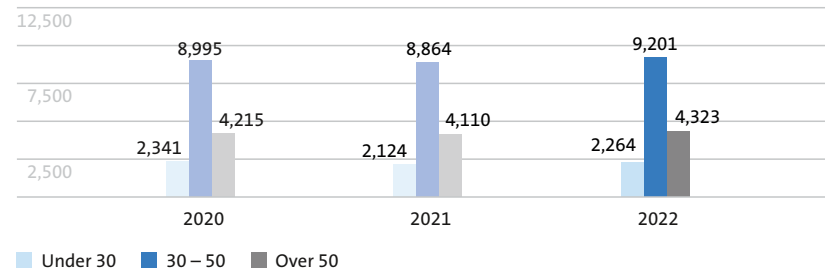
### Intercultural training

Krones **Expatriate Management** offers country and region-specific e-learning and live training courses – virtually and in person – on a variety of target cultures. These courses can be booked directly through the training portal or adapted to specific departmental needs. For employees assuming management roles abroad, we offer coaching through the Intercultural Leadership Program (ILP). A course on managing international teams is geared toward addressing the increasingly international nature and composition of teams within the company.

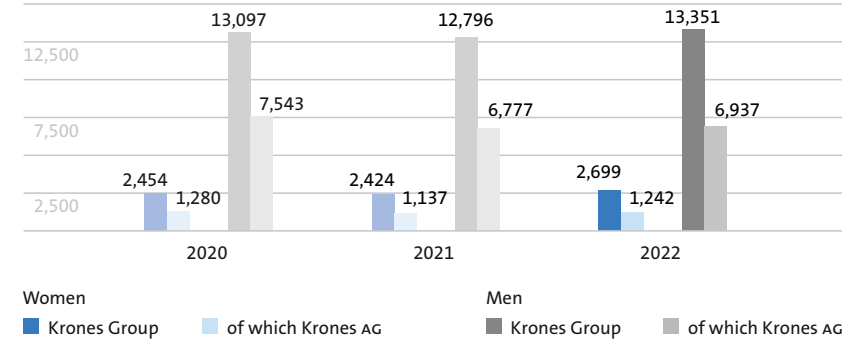
## 5. Key performance indicators



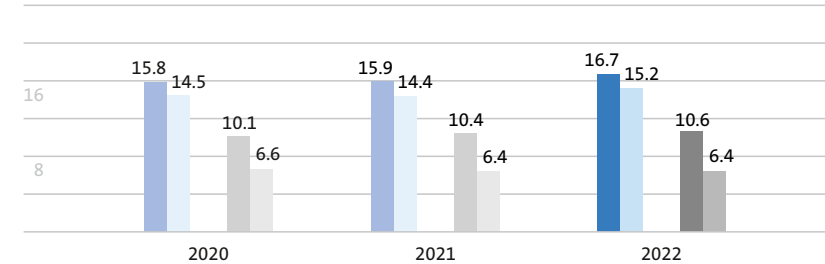
Krones Group – Age structure



Krones Group – Gender ratio (absolute)



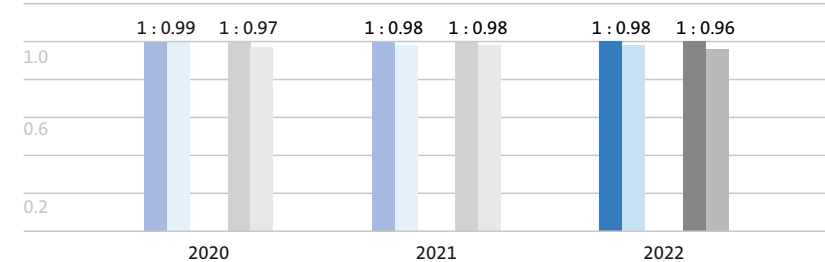
Krones Group – Gender ratio (percent)



Employees covered by and exempt from collective agreements



Krones AG – Average unadjusted gender pay gap



Employees covered by and exempt from collective agreements





## Ethical business conduct in our operations and towards customers

### 1. Impact and materiality

Ethical and moral integrity in our business conduct is the very basis of all that we do at Krones – and thus also for all of our offices, international subsidiaries and companies controlled through subsidiaries. Across the group, our management of ethical business conduct falls under the heading of **compliance**. At Krones, compliance is an overarching concept denoting conduct that is consistent with the rules, where the rules to be observed within the company far exceed statutory requirements. That is because they also include the group's internal guidelines and regulations and embody the moral values and standards that correspond to Krones' ethical principles. They are manifest in Krones' Code of Conduct. In the materiality analysis, business conduct with respect to our customers was rated with high financial materiality and low impact materiality. Compliance at Krones was rated medium in both regards. Because the two topics, business conduct and compliance, are closely interconnected and because the processes involved with both are similar, we have combined our reporting on them here.

### 2. Risks and opportunities

Our compliance risk analysis covers the following risk areas: Governance; active and passive corruption; cartels; health, safety, security and environment; money laundering and fraud. The group's compliance risk analyses are conducted and evaluated within a software environment. In addition, as of the end of 2022, the managing directors of Krones subsidiaries and their subsidiaries must conduct their own compliance risk analyses through annual **self-assessments**. The results of this risk analysis are aggregated at the level of the business units and the regions and visualised on a risk overview developed specifically for each business unit and region. The results are also bundled into our group-wide risk analysis.

### 3. Governance and resources

Strategic and operational responsibility for **compliance management** rests with the head of Corporate Governance at Krones AG, who holds an administrative position of the same name at the group level and reports directly to the CFO of Krones AG if disciplinary action is necessary but to the Executive Board as a whole for all other matters. In addition, the different regions in which the Krones Group sites are located and all subsidiaries with more than 300 employees have their own Compliance Officers. These officers know the group's central compliance and governance requirements as well as the laws and regulations of their respective regions. For employees on site, they are the direct contact person for all compliance matters. A Governance Committee consisting of members of all Executive Board areas also serves the head of Corporate Governance in an advisory capacity, supporting prevention efforts.

### 4. Strategy and targets

As part of our 2030 sustainability goals, we set and published the following overarching compliance target:

**Pursue a zero-tolerance policy for compliance violations and raise awareness across the board through effective compliance management – consisting of guidelines, risk analyses, measures, remedial action, training and reporting.**

In general, Krones' compliance management system aims to create a culture of integrity throughout the entire group and thus minimise compliance risks as much as possible.



in our supply chain



at Krones



at our customers



at the end consumer



## 5. Policies and actions

### Code of Conduct and Supplier Code

The Kronos Code of Conduct serves as the basis of the compliance management system. It was developed with the clear goal of ensuring compliance with laws, standards, policies and guidelines company-wide and thus creating a working environment characterised by integrity, respect and fair and responsible conduct. At the same time, the Code of Conduct serves to establish a reliable compliance culture and encourage employees to report irregularities. It **applies and is binding** for all bodies and every employee within the company. In the interest of all employees, violations are systematically investigated and disciplinary action taken. With concrete scenarios, the Code illustrates the contribution every individual can make towards implementing the principles of conduct within the group. Like the Code of Conduct, the Kronos Supplier Code covers the company's central compliance rules for service providers and suppliers.

### Compliance guidelines

Supplementary compliance guidelines, which also apply across the group, make concrete the **fundamental, normative principles** of the Code of Conduct for specific applications. Group-wide policies are currently in place for the following compliance topics: combating money laundering; handling gifts; charitable donations and sponsoring; working with sales-related business partners; fair and proper competition; what to do in situations with corruption risk; handling information; standards and documents; authorisation to represent and sign; and whistleblowing. Because the Kronos Group is not actively involved in politics or lobbying outside its association work, there is no company policy on this topic.

### Compliance training programme

We provide mandatory training programmes as part of our efforts to establish a culture of compliance throughout the entire company. For employees with a PC workstation, this training consists of comprehensive basic e-learning on the reasons, scope, and specific content of Kronos' compliance culture. Employees must also complete a refresher e-learning course every two years. For employees without a PC workstation, instruction is the responsibility of the respective managers, who are supplied with appropriate instruction materials. A second training series is dedicated to the topic of **anti-corruption** and is designed especially for employees in Sales and Procurement. This training is also an e-learning course. Participation in and completion of all training courses are the responsibility of the respective managers and are documented accordingly.

### Due diligence audits

In order to meet a number of national and international regulatory requirements, due diligence audits are conducted on customers, agents, suppliers and third-party payers. That gives the group a tool for process-integrated monitoring of business partners in high-risk countries for compliance incidents, provided that the necessary data is publicly accessible. Any findings trigger an in-depth due diligence audit by Corporate Governance, in which additional sources of information are tapped in order to plausibility check and assess the finding.



### Spot checks

Besides regular standard audits, the head of Corporate Governance initiates spot checks – particularly of processes with increased compliance risk such as the reporting of travel expenses – to verify the effectiveness of our compliance culture. If a suspected or actual compliance incident is detected, **actions** such as case management and disciplinary action are initiated. Knowledge gained through this process is used to develop and implement new actions as necessary and reasonable.

### Help desk and Kronos Integrity

Group employees seeking information about compliance-related matters or wishing to report possible violations can speak with their immediate superior or use any of three additional channels: contact the Compliance Officer, the Head of Corporate Governance or the associated team directly; call or e-mail the help desk; submit a report through the Kronos Integrity reporting system.

The digital reporting system, which can be accessed through the corporate website, can be used by group employees and third parties alike who identify gaps in compliance with laws or rules relating to Kronos. To ensure the highest levels of access protection and data protection, content encryption and a secure connection, the system is operated by an independent third-party provider. Whistleblowers can decide whether to submit tips anonymously or with contact information as long as the local laws where the whistleblower is based allow. The growing number of submissions received through Kronos Integrity suggests **broad acceptance** of the system among employees. As reports have increased, so too has the number of special investigations. All compliance-related matters and tips that are brought to the help desk or Kronos Integrity are documented for further processing and evaluation.

### Internal reporting

Clear lines of reporting apply to compliance aspects. The Governance Officers in the regions report to the head of Corporate Governance, who in turn reports to the Supervisory Board's Audit and Risk Committee once a year. The head of Corporate Governance also regularly reports to the Executive Board and the Governance Committee in the latter's quarterly meetings, presenting developments in the past quarter and further plans. The committee offers opinions in an advisory capacity.

### Approval process for sensitive transactions

The group-wide **anti-kickback policy** uses a traffic-light system to clearly identify which gifts are acceptable, questionable or prohibited. Due to the risks involved, the reporting of travel expenses is subject to another internal review, which triggers an automated notification to Corporate Governance if the receipts submitted exceed a certain limit.

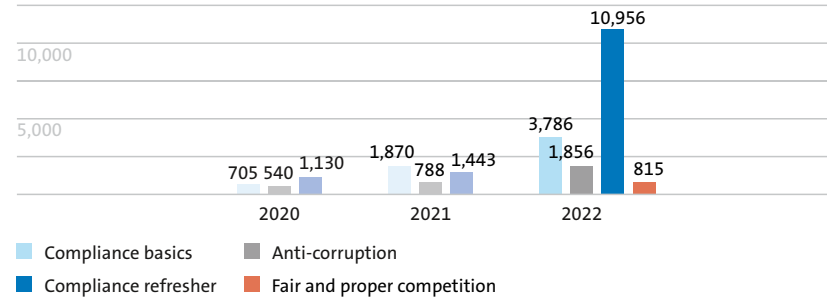
### Charitable giving and sponsorship strategy

The cities and counties in and near which our plants and sales offices are located are the lifeblood of our business. That is why we support clubs, organizations, events, and initiatives that pursue charitable purposes local to one of our sites in Germany. Our sites and subsidiaries outside Germany also have the freedom to actively support their local communities. Our charitable giving and sponsorship strategy is laid out in our group-wide charitable giving and sponsorship policy. Its aim is to ensure that contributed funds achieve the greatest possible benefit to the respective beneficiaries and that the projects supported are aligned with the company's values and interests.



## 6. Key performance indicators

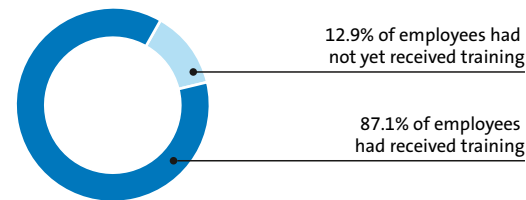
Krones Group – Compliance training (in-person and e-learning)



The compliance basics course is mandatory for all new employees and every new manager within the Krones Group. It must be completed within the first three months of beginning employment and may be taken as an e-learning course, instruction from a manager, or an in-classroom course. The anti-corruption training is relevant for employees who have regular third-party contact with customers, suppliers and government offices. The refresher training was implemented throughout Krones AG in 2019 and will be successively rolled out worldwide. It serves to refresh the basic content every two to three years. In addition, in 2022, an e-learning course on fair and proper competition was created, which will in future be required of employees who will participate in trade fairs.

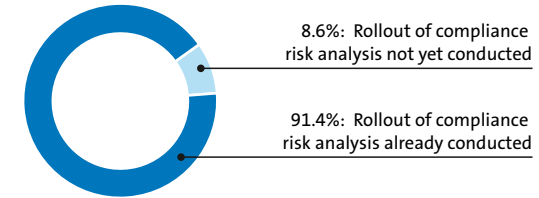
Krones Group – Compliance training in 2022

Percentage of employees within the Krones Group who have received compliance training at least once as of the end of 2022



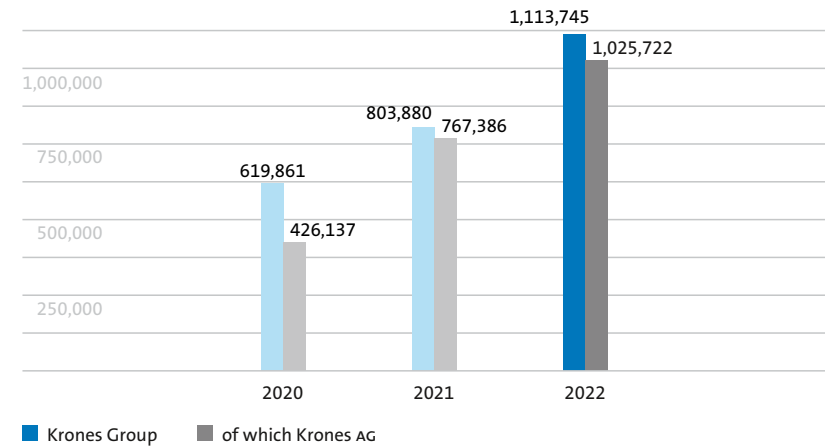
Krones Group – Compliance risk analyses in 2022

Percentage of group covered by compliance risk analyses, based on the number of employees in the Krones Group



In all, one tip was received through Krones Integrity, while 30 tips were received through other channels. Every tip is followed up and plausibility tested and then, if applicable, put to a deeper investigation with possible disciplinary action taken.

Krones Group – Expenditure for charitable donations and sponsoring (€)



Our goal is to give between 0.01% and 0.02% of our prior-year consolidated revenue back to stakeholders each year in the form of charitable donations and sponsoring. In 2022 we reached that goal with a total value of 0.031%.



## Digital responsibility in our operations and our products

### 1. Impact and materiality

Protecting personal data as well as information and information-processing systems is a key concern for Krones. We strive to maintain seamless information security that is in keeping with the latest state of the art across our entire organisation – for internal data and systems and for the products and services we deliver to our customers. That is essential to the uninterrupted operation of our own IT and the trust of our business partners. In the materiality analysis, digital responsibility for our products and services was rated high for financial materiality and low for social impact materiality. Because the information security of our products relies on high **cybersecurity** standards within our own operations, we have opted to report on this topic voluntarily here.

### 2. Risks and opportunities

A continuous process for systematically improving information security within the group is an integral part of the **information security management system (ISMS)**. It includes regular penetration and vulnerability testing as well as risk analyses that are updated regularly and annual internal and external audits of the Information Security Officer. The latter is performed by TÜV SÜD and is necessary in order to maintain ISO 27001 certification. The analyses and audits cover actual incidents as well as potential risk events. Besides the periodic audits, a group-wide whistleblowing system serves as an important means to identify and counteract potential security risks on an ongoing basis.

### 3. Governance and resources

Strategic and operational responsibility for cybersecurity rests with a management support unit within the office of the CEO, which safeguards digital responsibility across the Krones Group and along the entire value chain. In regions where additional **Data Protection Officers** are required by law, that role has been established in the respective subsidiaries. These officers know the group's core data protection requirements as well as the laws and regulations of their respective regions. In addition, all departments within Krones AG that regularly handle personal data and all subsidiaries have their own data protection coordinators. A network of local information security coordinators in the individual regions and companies coordinates all information security matters. To enable effective exchange among them, we have launched a cybersecurity conference that convenes at least once per quarter.

### 4. Strategy and targets

As part of our 2030 sustainability goals, we set and published the following overarching product-related cybersecurity target:

**Establish a state-of-the-art IT security architecture for all Krones products that conforms to current and future regulations, represents the current state of the art, and meets customers' requirements.**



in our supply chain



at Krones



at our customers



at the end consumer



The IT security of our products is closely linked to our operational goals with respect to information security and data protection:

Ensure the confidentiality, availability, and integrity of our employees' and business partners' data by installing centralised management systems for information security and data protection that are aligned with international standards and assigned local responsibility.

## 5. Policies and actions

### Guidelines for data protection and information security

The EU's General Data Protection Regulation (GDPR) serves as the main regulatory basis for our data protection efforts. The provisions of the GDPR are reflected in the Krones Group's corporate data protection policy and complemented by additional local rules and regulations for the individual countries. Data sharing within the Krones Group is governed by a contract system that applies across the group. We also have established a group-wide **information security policy**. It builds on ISO 27001 and serves as the foundation for the company's efforts to protect all information above and beyond the requirements of the law, especially our own business secrets and sensitive information from and about our business partners. Both policies are subject to regular review and updated as needed. For information with possible security implications, retention requirements are laid out in the "Secure operation of IT systems" policy, which applies across the group.

### Cybersecurity principles for products

In order to increase information security relating to products in a targeted, systematic manner, the centralised, interdisciplinary Product Security Incident Response Team (PSIRT) has formulated eight cybersecurity principles, which are applied to new Krones products and services. In addition, the PSIRT publishes the latest **security advisories** on a dedicated landing page within the corporate website. These advisories provide information about possible security gaps that affect products, solutions or services from Krones and offer guidance for remedying them. Customers can also request that the security advisories be sent to them directly by email.

### Internal IT security providers

A **security operation centre (soc)** was established in 2021 and serves as both an internal and external IT security service provider, detecting and analysing anomalies and ensuring timely action on verified threats. In this way, risks arising from data leaks or identity theft can be detected and eliminated at an early stage. As part of our technical security audits, penetration testing is carried out continuously on selected internal systems that are accessible from outside. An action plan is being developed to address the identified vulnerabilities. The measures are being coordinated and implemented with the relevant units.



### External certification under ISO 27001

Krones' information security management system (ISMS) is ISO 27001 certified for all IT services that are provided **centrally** for the group. The certification and associated audits are being expanded in stages. Besides the entire Krones AG organisation and the two companies in Franklin, Wisconsin (USA), and Bangalore, India, the Krones offices in Bangkok, Thailand, and Steinecker GmbH are also certified locations. Next in line for ISMS certification are the Centres in Brazil and Dubai.

### Training, awareness and reporting channels

Employee awareness is a key element of our cybersecurity strategy. The information security policy prescribes annual training for all employees with respect to data protection and information security topics. Additional training is given to **specific** target groups. Moreover, an emergency card that is published internally serves as an additional tool to help employees identify and report security incidents. Regular contributions and awareness campaigns are disseminated through the company's internal communication channels. Any violations can be reported anonymously by way of the Krones Integrity whistleblower portal or to a central e-mail address. Guidelines for disclosing weaknesses are published on the Krones Group website.

### Procedure for handling critical incidents

As part of our ISO 27001-certified information security management system, we have defined processes for handling findings and breaches. Security incidents and weaknesses are investigated, processed and resolved by the Product Security Incident Response Team (PSIRT) or the Information Security Incident Response Team (ISIRT). The security operation centre (SOC) is responsible for **proactive anomaly detection**. In addition, our internal experts work with external providers of digital forensic and incident-response services to respond quickly to complex security incidents.

### Cybersecurity in our contacts with third parties

The topic of cybersecurity is addressed in the Supplier Code of the Krones Group. In the supplier selection process and upon inception of a contract, **minimum requirements** for cybersecurity are implemented, with the help of security checklists and decision trees. Procedures for classifying and labelling data; identity and access management; approval processes for critical access rights; and non-disclosure agreements all serve to protect the company's own data from unauthorised access and illegal disclosure.

### 6. Key performance indicators

We are not currently tracking any external quantitative indicators on digital responsibility.







## EU Taxonomy

### Objective and overview of requirements

With the EU Taxonomy Regulation [Regulation (EU) 2020/852] and the associated delegated act, the European Union seeks to promote the transition to a sustainable economy. In order to fulfil these new transparency requirements, the Krones Group has established processes that make it possible to determine what proportion of **revenue**, **capex** and **opex** (capital expenditure and operating expenditure) come from sustainable economic activities. The analysis of the activities relates to the environmental objectives of (1) climate change mitigation and (2) climate change adaptation under Delegated Regulation (EU) 2021/2139. The delegated act on the other four environmental objectives has not yet been published and is therefore not part of this year's reporting. Building on the identification of **taxonomy eligibility** in 2021, **taxonomy-alignment** of the Krones Group's economic activities will be reported from 2022 onward.

Taxonomy-eligible activities are those that fit an EU Taxonomy activity description. In order to be reported as taxonomy-aligned, the activities must additionally comply with the technical screening criteria and minimum social safeguards. Only activities under environmental objective 1 (climate change mitigation) could be classified as taxonomy-eligible, no activities under environmental objective 2 (climate change adaptation). Due to possible changes in the application of the EU Taxonomy, it must be noted that it may not be possible to collect the data continuously.

### Organisation

Due to the publication of further activities from the energy sector and possible changes in the interpretation of the EU Taxonomy, the analysis of the taxonomy eligibility of the Krones Group's activities was updated this year. Then, in collaboration with the relevant departments, "the taxonomy-eligible activities were

analysed for fulfillment of the "substantial contribution" and "Do No Significant Harm (DNSH)" criteria." In addition, the existing Human Resources, Compliance and Human Rights management processes within the Krones Group were reviewed for meeting the minimum social safeguards.

### Relevant activities

#### Enviro product portfolio

Part of the Krones Group's product portfolio falls within the definition of EU Taxonomy Activity 3.6 "Manufacture of other low carbon technologies", as economic activities that contribute substantially to the objective of climate change mitigation. Because of their **high energy and media efficiency**, the technologies within the sustainable "enviro" product line enable the Krones Group's customers to reduce their greenhouse gas emissions and are therefore taxonomy-eligible. The enviro sustainability programme for machines and lines within the Krones Group was developed in collaboration with TÜV SÜD. The Krones Group assesses its technologies against a benchmark defined by TÜV SÜD to identify the most energy and media-efficient products in its portfolio, which represent the best available technology. The machines within the **enviro portfolio** contribute substantially to climate change mitigation because they demonstrate greenhouse gas emission savings compared to the rest of the Krones Group's product portfolio. Internal calculations show that the majority of greenhouse gas emissions are released during the use phase of the machines and lines and, therefore, this phase holds the greatest potential for savings. **The EU Taxonomy explicitly requires as a criterion for taxonomy-alignment that a life cycle assessment (LCA) be performed, which in turn places very high new demands with regard to independent verification over the entire life cycle of the Krones Group's products. Therefore, the current enviro product portfolio cannot be recognised**





as taxonomy-aligned for the financial year 2022. However, this does not mean that the machines are unable to meet the requirements on their own merits. The Krones Group is taking the necessary steps to be able to show the taxonomy-alignment of its enviro product portfolio for the year 2023.

The solutions explored in the **R&D projects** for the enviro product portfolio (Activity 3.6) contribute fundamentally to the reduction or avoidance of greenhouse gas emissions. The R&D projects can thus be included under a capex plan under the EU Taxonomy (category b) to expand the company's taxonomy-aligned economic activities. The capex plan has been approved by the Executive Board and has been disclosed. The total capital expenditure expected during the reporting period and during the one-year term of the capex plan amounts to €26.9 million. Therefore, the Krones Group is able to report the expenditures associated with its R&D projects relating to energy efficiency (within the context of Activity 3.6) as taxonomy-aligned.

#### Non-core activities

Moreover, the Krones Group was able to determine the relevance of the non-core activities listed in the Annex. These activities generate no revenue and represent either third-party products or **individual measures** (category c) taken by the Krones Group to enable a reduction in greenhouse gas emissions. As such, the activities are classified as taxonomy-eligible for the environmental objective of **climate change mitigation**. By way of analysis by the respective departments, the Krones Group can report its energy efficiency measures, photovoltaic systems and electric-vehicle charging stations as taxonomy-aligned.



#### Do No Significant Harm (DNSH)

An assessment was also done as to whether attainment of any of the other environmental objectives would be significantly harmed by the respective economic activities. To this end, the Krones Group conducted **production site analyses** in which those sites were deemed relevant that were linked to taxonomy-eligible activities. The results of the production site analysis show that none of the Krones Group's business activities cause significant harm to attainment of the other environmental objectives.



#### Minimum social safeguards

To meet the minimum social safeguards, the Krones Group aligns all of its economic activities with internationally recognised agreements and objectives. The Krones Group commits to consistently uphold human rights and labour standards along its entire value chain. Human rights, labour practices and social standards serve as the normative foundation of the company's daily work and are therefore to be fully respected and upheld in all processes and projects worldwide.

Further disclosures on compliance with minimum social safeguards and **due diligence** mechanisms implemented on the topics of "Respect for human rights", "Anti-corruption and bribery matters", "Taxation" and "Free competition" are contained in the respective sections on "Diversity in our operations", "Labour and human rights in our operations", "Labour and human rights in our supply chain" and "Ethical business conduct".



## Calculating KPIs



The definition of the key performance indicator “turnover” used in the EU Taxonomy corresponds to the revenue reported in Krones’ consolidated financial statements. The associated information can be found in the consolidated statement of profit and loss in this Annual Report. The revenue generated with enviro products is reported as taxonomy-eligible. Capex includes additions to property, plant and equipment, intangible assets, and right-of-use assets. Information on the Krones Group’s overall capital expenditure can be found in the consolidated statement of financial position in this Annual Report. Direct costs associated with research and development, building modernisation measures and maintenance, which cannot be capitalised, are included in the opex KPI.



The disclosures on revenue, capital expenditure and operating expenses have been prepared in compliance with the delegated regulation on disclosure obligations and in accordance with the International Financial Reporting Standards (IFRS). The economic activities of the Krones Group have always been clearly classified under only one EU Taxonomy activity in order to avoid double counting of revenue, capex and opex. The KPIs presented here must be viewed with the fact in mind that the EU Taxonomy does not yet fully apply to the Krones Group because material economic activities of the Krones Group are not in the current catalogue of EU Taxonomy activities.

Economic activities	Revenue 2022	Revenue 2021	Capex 2022	Capex 2021	Opex 2022	Opex 2021
	%	%	%	%	%	%
<b>Taxonomy-eligible activities</b>	7.3	2.4	12.4	1.5	3.7	7.2
<b>Taxonomy-aligned activities</b>	0 <sup>1)</sup>	n. a.	7.3	n. a.	2.0	n. a.
<b>Taxonomy-non-eligible activities</b>	92.7	97.6	87.6	98.5	96.3	92.8
<b>Total</b>	100	100	100	100	100	100

<sup>1)</sup> Due to the stringent external verification requirements the EU Taxonomy places on Activity 3.6, this disclosure must be marked 0 under the Taxonomy Regulation. That is because of the scope for interpretation as relates to fulfilment of the requirements.



## Annex to the Non-financial Statement – EU Taxonomy

Economic activities (1)	Code(s) (2)	Absolute revenue (3)	Proportion of revenue (4)	Substantial contribution criteria							DNSH criteria ("Do No Significant Harm")					Minimum safeguards (17)	Taxonomy-aligned proportion of revenue, 2022 (18)	Taxonomy-aligned proportion of revenue 2021 (19)	Category (enabling activities) (20)	Category (transitional activities) (21)
				Climate change mitigation (5)	Climate change adaptation (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate change mitigation (11)	Climate change adaptation (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)					
		€ million	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
<b>A. Taxonomy-eligible activities</b>																				
A.1. Environmentally sustainable activities (taxonomy-aligned)																				
Revenue of environmentally sustainable activities (taxonomy-aligned) (A.1)		0 <sup>1)</sup>	0 <sup>1)</sup>	–	–	–	–	–	–	–	–	–	–	–	–	–	0	n/a		
A.2. Taxonomy-eligible but not environmentally sustainable activities (non-taxonomy-aligned activities)																				
Activity 3.6		308.8	7.3																	
Revenue of taxonomy-eligible but not environmentally sustainable activities (non-taxonomy-aligned activities) (A.2)		308.8	7.3																	
Total (A.1 + A.2)		308.8	7.3														0			
<b>B. Non-taxonomy-eligible activities</b>																				
Revenue non-taxonomy-eligible activities (B)		3,900.5	92.7																	
Total (A + B)		4,209.3	100																	



<sup>1)</sup> Due to the stringent external verification requirements the EU Taxonomy places on Activity 3.6, this disclosure must be marked 0 under the Taxonomy Regulation. That is because of the scope for interpretation as relates to fulfilment of the requirements. For further information, see the section entitled EU Taxonomy in the Non-financial Statement.







## Nuclear and fossil gas-related activities

Row	Nuclear energy-related activities	
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO
Row	Fossil gas-related activities	
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	YES
6.	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO

**Taxonomy-eligible, but not taxonomy-aligned activities**

(These figures relate only to opex).

Row	Economic activities	Proportion (in monetary amounts and in percent)					
		(CCM + CCA)		Climate change mitigation		Climate change adaptation	
		Amount	%	Amount	%	Amount	%
1.	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.26 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the opex KPI	0/0		–		–	
2.	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.27 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the opex KPI	0/0		–		–	
3.	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.28 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the opex KPI	0/0		–		–	
4.	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.29 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the opex KPI	0/0		–		–	
5.	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.30 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the opex KPI	€0.4 million / 0.3%		€0.4 million / 100%		0/0	
6.	Amount and proportion of taxonomy-eligible but not taxonomy-aligned economic activity referred to in Section 4.31 of Annexes I and II to Delegated Regulation 2021/2139 in the denominator of the opex KPI	0 / 0		–		–	
7.	<b>Amount and proportion of other taxonomy-eligible but not taxonomy-aligned economic activities not referred to in rows 1 to 6 above in the denominator of the opex KPI</b>	<b>€1.7 million / 1.2%</b>		<b>€1.7 million / 100%</b>		<b>0/0</b>	
8.	<b>Total amount and proportion of taxonomy eligible but not taxonomy-aligned economic activities in the denominator of the opex KPI</b>	<b>€2.1 million / 1.5%</b>		<b>€2.1 million / 100%</b>		<b>0/0</b>	





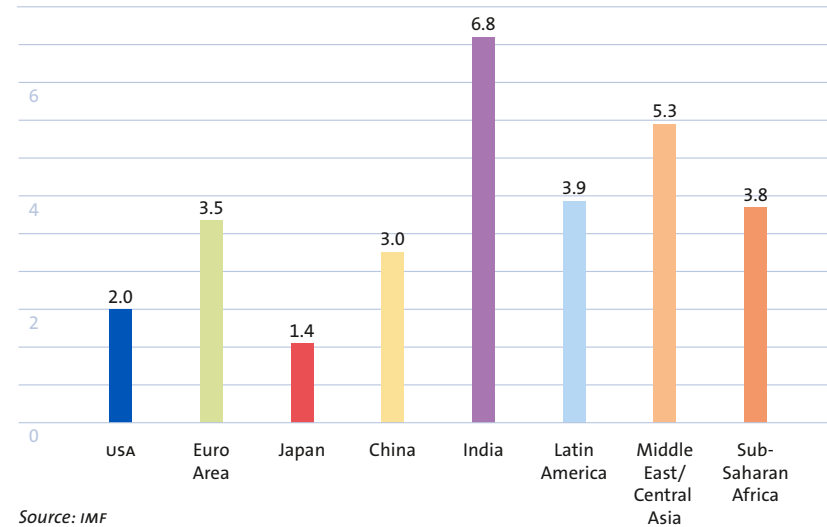
## Economic environment

- Global economy grew 3.4% in 2022
- Slight increase in German mechanical engineering output
- Global demand for packaged beverages continues to rise

### Pace of world economic growth slowed significantly in 2022

The global economy performed much worse than expected in the past year. In January 2022, the International Monetary Fund (IMF) forecast global economic growth of 4.4% for the full year. The final figure was only 3.4%. This means that the pace of growth has slowed significantly compared to 2021 (+6.2%), when the global economy was recovering from the Covid slump. The Russia-Ukraine conflict was one of the main reasons. This led to rising energy, commodity and food prices, thus accelerating inflation. Central banks responded to high inflation rates with sharp interest rate hikes, which had a negative impact on the

GDP growth rate 2022 by region (%)



economy. The US dollar, on the other hand, benefited from the rising interest rates. This had a negative impact on many emerging and developing countries in 2022 because they have debt denominated in US dollars.

A major impediment to global economic growth in the reporting period was the situation in China. The Chinese government's zero-Covid strategy and problems in the real estate sector weighed heavily on the economy. China's gross domestic product (GDP) ultimately increased by 3.0% year on year in 2022 (2021: +8.4%). The weak growth in China is also mainly responsible for the sluggish overall growth in emerging and developing economies. According to the IMF, these grew by just 3.9% in 2022 (2021: +6.7%). GDP growth in India was significantly above the average at 6.8% in the reporting period (2021: +8.7%). In the Middle East/Central Asia region, the economy benefited from the rising oil price and grew by 5.3% (2021: +4.5%). Following a strong upward movement in 2021 (+7.0%), economic growth in Latin America was in line with the emerging markets in 2022, at 3.9%. The Sub Sahara/Africa region recorded growth of 3.8% in 2022 (previous year: 4.7%).

GDP in industrialised countries improved in 2022 by a total of 2.7% (2021: +5.4%). Economic output in the USA increased by 2.0% (2021: 5.9%). The world's largest economy struggled with rising interest rates and lower consumer purchasing power. Despite the many pressures, the euro area managed GDP growth of 3.5% in 2022 (2021: 5.3%). In Japan, the economy failed to benefit significantly from the low interest rates and weak yen. GDP there rose in 2022 by an under-average 1.4% (2021: 2.1%).

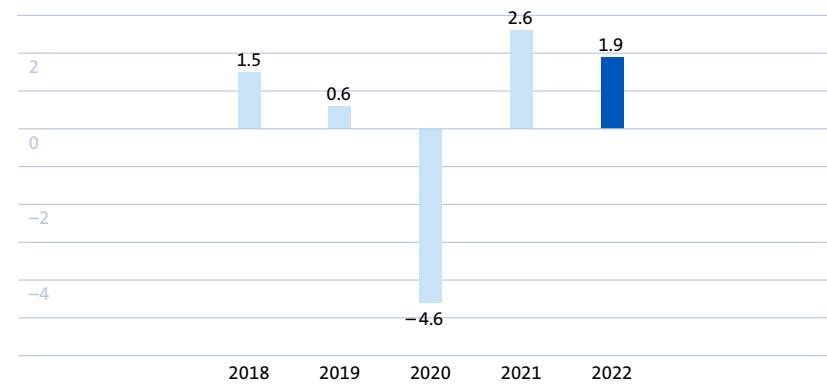


## German economy grew by 1.9% in 2022

According to preliminary figures from Germany's Federal Statistical Office, German GDP increased by 1.9% year on year in 2022. This represents a marked growth slowdown relative to the previous year (GDP: +2.6%). The main reasons were the sharp rise in energy and food prices combined with material and supply shortages.

Machinery and equipment investment, government spending and strong private consumption were the main growth drivers in 2022. Private consumption benefited from catch-up effects after the lifting of Covid-related restrictions in spring 2022.

GDP growth Germany (%)



Source: Germany's Federal Statistical Office

## Slight increase in production at German machinery and industrial equipment manufacturers in 2022

The German Mechanical Engineering Industry Association (VDMA) was optimistic going into 2022. According to the VDMA's forecast, machinery and industrial equipment output was set to rise by 7% year on year. Due to the economic fallout from the war in Ukraine and ongoing supply chain issues, the association has had to revise its 2022 forecast downward twice in a short period of time. At the end of May 2022, the VDMA expected only slight output growth of 1% for the full year. According to preliminary figures from the VDMA, machinery and industrial equipment output finally increased by 1% in 2022 relative to 2021.



### Megatrends drive growth in Krones' markets

Krones operates in markets with stable growth. Key growth drivers include several megatrends that will lead to increased demand for our products and services in the medium and long term:



*The increasing global population, urbanisation, growth of the middle class and sustainability are megatrends that support the growth of Krones' markets.*

### Global population continues to grow

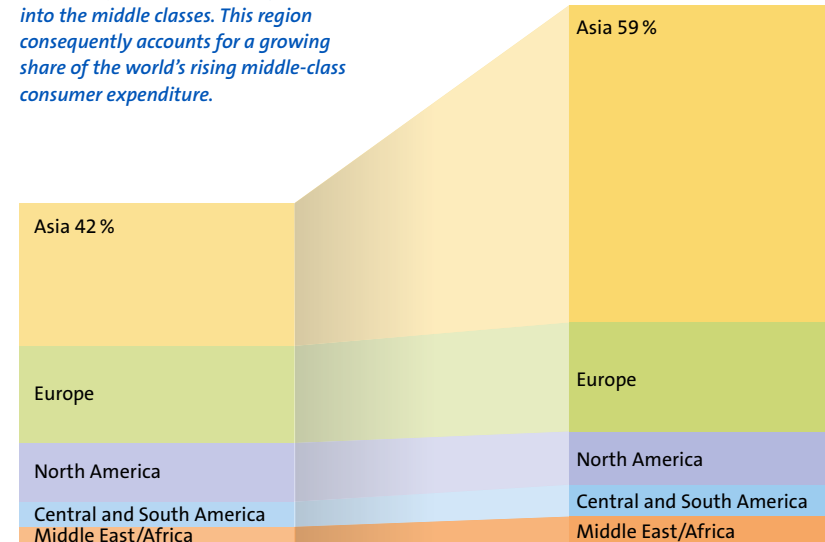
The main, overarching megatrend is global population growth. According to United Nations (UN) data, the world population passed the eight billion mark on 15 November 2022. The UN estimates that the number of people on the planet will grow more slowly in the future than in the preceding decades. Nevertheless, the global population is already expected to reach around 8.5 billion in 2030, 500 million more than at the end of 2022. All those people need to eat and drink. At the same time, the number of people consuming packaged beverages is expected to increase at a higher rate. This is supported by two other megatrends, which are the growing middle class and increasing urbanisation.

### Middle classes growing and increasing consumer spending

In an unbroken long-term trend, more and more people in emerging and developing economies are escaping poverty and rising into the middle class. According to OECD forecasts, this means that the middle classes worldwide will grow from 3.2 billion people to 4.9 billion between 2020 and 2030. As incomes rise, so too does consumer spending – and that includes spending for packaged beverages and foods. Asia accounts for a large share of the growth of the middle class and the corresponding increase in buying power worldwide. The OECD puts the Asian share of total middle-class consumer spending worldwide at 42% in 2020. By 2030, that figure is expected to rise to 59%. Total consumer spending by the global middle class, according to the OECD, is likely to increase in that time from us\$35 trillion to us\$55.7 trillion.

Asia's share of global middle class consumption is growing rapidly

*In Asia especially, rapidly increasing numbers of people are moving up into the middle classes. This region consequently accounts for a growing share of the world's rising middle-class consumer expenditure.*



2020 (expected) us\$35.0 trillion

Source: oecd

2030 (expected) us\$55.7 trillion



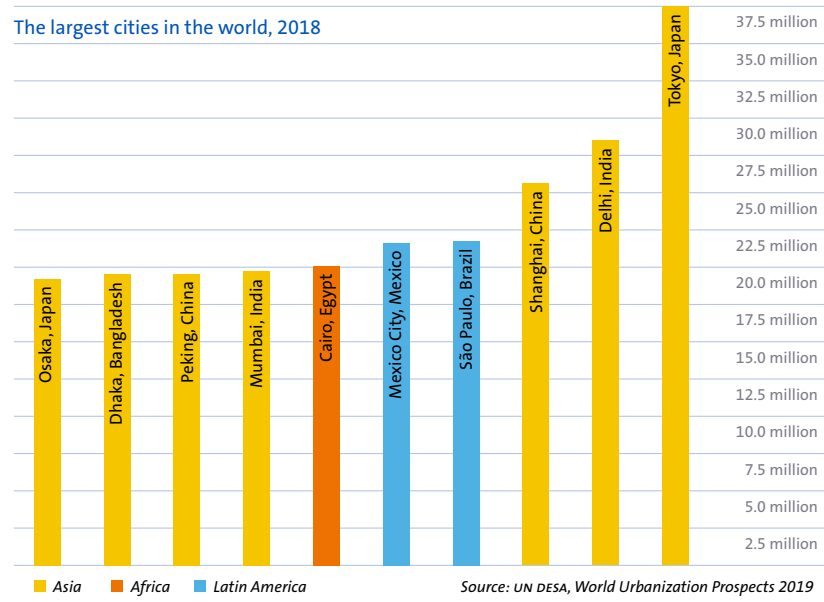
## Urbanisation boosts sales of packaged beverages and foods

*The trend towards urbanisation – the migration of people rural areas to cities – is strongest in Asia and Africa.*

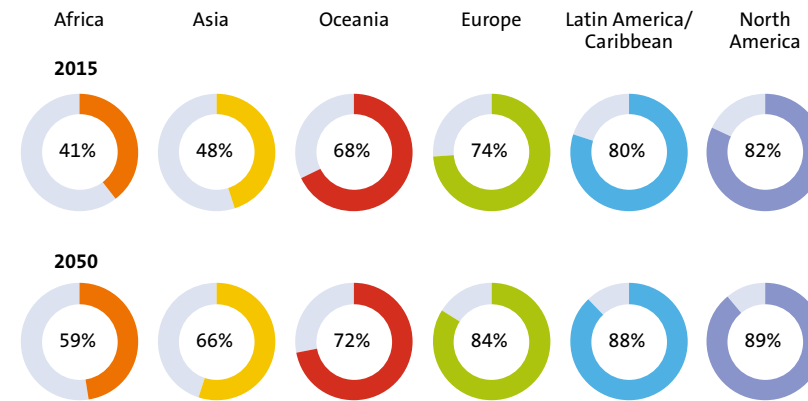
Increasing urbanisation – the migration of people from rural areas to cities – likewise promotes demand for packaged food and beverages. That is because city dwellers consume more packaged products on average than people who live in the countryside.

The United Nations forecasts that two-thirds of the earth’s inhabitants will live in cities by 2050. At present, only about half of the world’s population lives in cities. The strongest influx of people into cities is in the developing and emerging market countries of Africa and Asia.

The largest cities in the world, 2018



Urban population in 2015 and 2050 (% of total)



Source: United Nations (World Urbanization Prospects, The 2018 Revision)

## Sustainability in business is a new megatrend

Sustainability is a megatrend that is also a major focus for Krones’ customers. Many international beverage and food companies place increased emphasis on conserving resources in production and shrinking their carbon footprint. This drives demand for resource-efficient filling and packaging machines. With the enviro sustainability program, Krones has focused on the eco-efficiency of its products and services for many years. We have been developing enviro dynamically since 2008 and have a long track record of providing our customers with innovative and sustainable filling and packaging technologies. This means we benefit as a pioneer from the sustainability trend.

*Krones has long taken care to ensure that machines and lines are resource-efficient. Sustainability is now established as a new megatrend.*



## Global consumption of packaged beverages steadily increasing

Global demand for packaged beverages has been on a stable upward trend for many years. Only 2020 saw a year-on-year decline in consumption due to the coronavirus pandemic, when bars and restaurants around the world were hit hard by lockdowns to contain infection. According to preliminary figures from Global Data, global consumption of packaged beverages, at a total of 1,410 billion litres in 2022, was 4.1% higher than a year earlier (2021: 1,354 billion litres). This means global beverage consumption also significantly exceeded the level from before the coronavirus crisis (2019: 1,366 billion litres).

The strongest percentage increase in consumption during 2022 (5.5%) related to new drinks, which include sports and energy drinks together with ready-to-drink coffee and tea. Demand for milk and dairy drinks also rose strongly, increasing by 5.1%. Consumption of alcoholic beverages grew approximately in line with the overall market, with an increase of 4.0%. Carbonated drinks and packaged water both saw consumption grow by 3.8% in 2022. At 3.0%, consumption of fruit and vegetable juices rose at a significantly lower rate than the overall market.

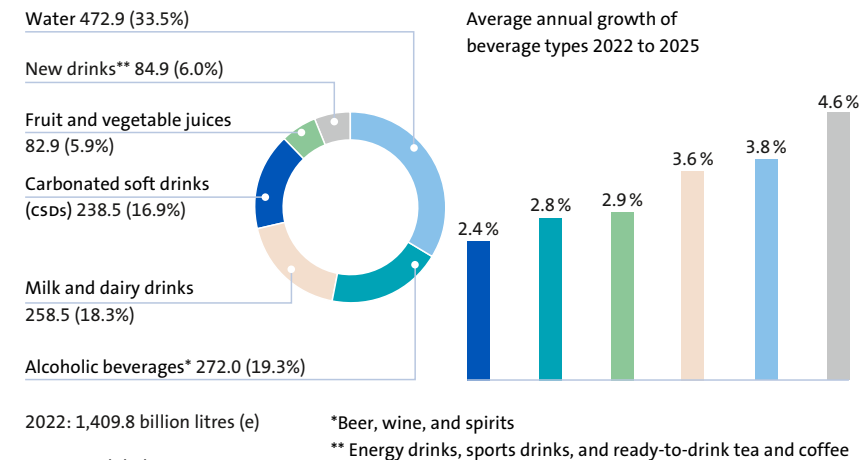
*Following a dip in 2020 due to Covid, global demand for packaged beverages has picked up again. By 2022, global consumption was already above pre-crisis levels. The stable market growth is expected to continue in the years ahead. A major factor in this is likely to be growing demand for bottled water.*

demand for clean bottled drinking water in emerging and developing countries. Water is also benefiting from the ongoing trend in industrialised countries towards healthy eating.

Consumption of packaged beverages is also expected to continue growing in the coming years. According to Global Data figures, demand will grow at average annual rates of 3.3% from 2022 to 2025.

Consumption of **bottled water** is expected to grow at an above-average rate of 3.8%. A key growth driver in this largest segment of the global beverage market (market share in 2022: 33.5%) is rising

Global consumption of packaged beverages in 2022 in billion litres



The second-largest segment of the packaged beverages market comprises **alcoholic beverages** (market share in 2022: 19.3%). Their market share is likely to decline slightly in coming years, however, because demand in industrialised countries is already saturated. In total, according to figures from Global Data, the consumption of packaged alcoholic beverages is expected to grow at an average annual rate of 2.8% from 2022 to 2025.

Growth has picked up in the **milk and dairy drinks** segment (global market share in 2022: 18.3%). This is mainly due to a strong rise in demand for alternative milks such as oat, soy and almond milk. So far, however, these remain niche products within the milk market. The segment is dominated by 'conventional' milk, which accounts for a share of over 70%. Consumption in the entire milk and dairy drinks segment is expected to grow on average by 3.6% a year from 2022 to 2025.



Consumption of **carbonated soft drinks (CSDs)** (2022 share: 16.9%) is projected to grow at a lower rate than the overall market in the years ahead. This is mainly because consumers in industrialised countries are increasingly giving up sugary drinks. According to Global Data figures, demand for CSDs is expected to grow at an average annual rate of 2.4% from 2022 to 2025.

The two smaller segments of the beverage market, **new drinks** (share of global beverage consumption in 2022: 6.0%) and **fruit and vegetable juices** (5.9%) are expected to grow at significantly different rates in the next few years. For new drinks, which include sports drinks, energy drinks and ready-to-drink coffee and tea, the rate of increase from 2022 to 2025 is expected to average 4.6% a year. Demand for fruit and vegetable juices is projected to rise by an average of just 2.9% per year during the same period.

### Rapidly growing demand for packaged beverages in emerging markets

Three megatrends – population growth, a burgeoning middle class and urbanisation – mainly play out in emerging and developing countries. As a result, demand for packaged beverages is likely to grow significantly faster in the coming years in the emerging markets than in the mature industrialised nations. The latter countries, however, are seeing increasing variety in terms of beverages and packaging, which presents attractive growth opportunities to Kronen in those countries.

The region with the strongest demand growth for packaged beverages is Asia/Pacific. According to Global Data, consumption there is expected to rise by an annual average of 5.3% between 2022 and 2025. It should be noted that this starts from a high base, as Asia/Pacific is already the largest regional market for packaged beverages, with a share of around one-fifth. Another large and rapidly

growing market is China. Demand there is expected to increase by an average of 4.1% per year from 2022 to 2025. For the Africa/Middle East region, the average annual growth forecast for the same period is 3.4%. Demand in Russia/CIS/Eastern Europe is expected to increase in proportion with the overall market (with growth of 3.3%). With an average annual growth rate of 2.0%, consumption in South America is likely to show only below-average growth from 2022 to 2025.

The same applies to the markets in the mature industrialised countries. The average growth rate from 2022 to 2025 is projected to be 2.2% for North and Central America and 2.0% for Western Europe. In the relatively small Central Europe sales region, demand is expected to grow during this period by an average of 1.4 % per year.

#### Worldwide consumption of packaged beverages by region\*

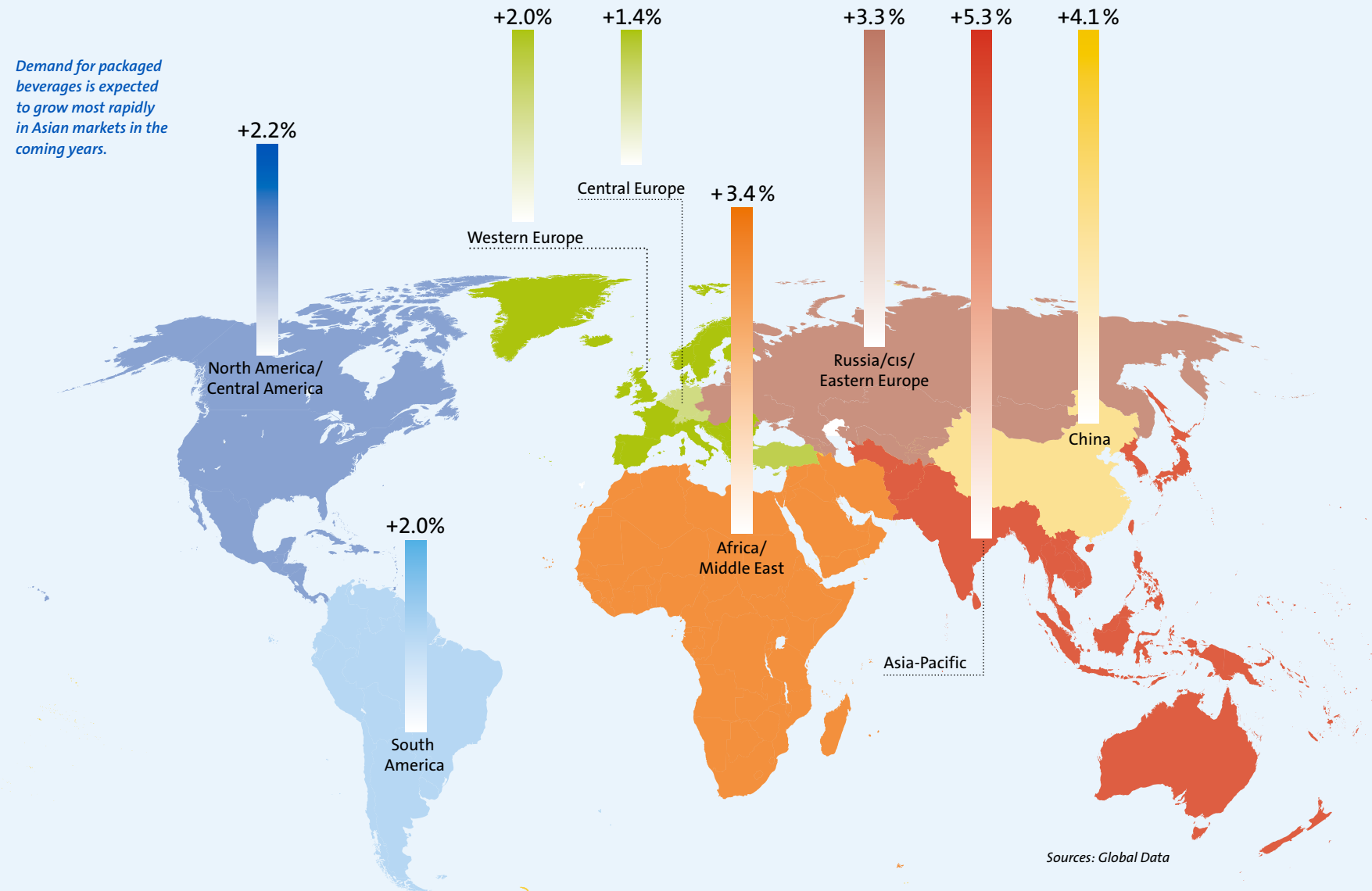
	2022 (e)		2025 (e)		Average annual growth (%) 2022–2025
	Billion litres	%**	Billion litres	%**	
Asia-Pacific	288.0	20.4	336.6	21.6	5.3
China	269.2	19.1	303.3	19.5	4.1
North America/Central America	229.9	16.3	245.6	15.8	2.2
South America	184.3	13.1	195.5	12.6	2.0
Western Europe	151.4	10.7	160.5	10.3	2.0
Africa/Middle East	130.3	9.2	144.3	9.3	3.4
Russia/CIS/Eastern Europe	103.4	7.3	114.0	7.3	3.3
Central Europe	53.0	3.8	55.3	3.6	1.4
<b>Worldwide</b>	<b>1,409.5</b>	<b>100.0</b>	<b>1,555.1</b>	<b>100.0</b>	<b>3.3</b>

\*Rounding differences possible \*\*Share of global consumption | (e) = expected

Sources: Global Data

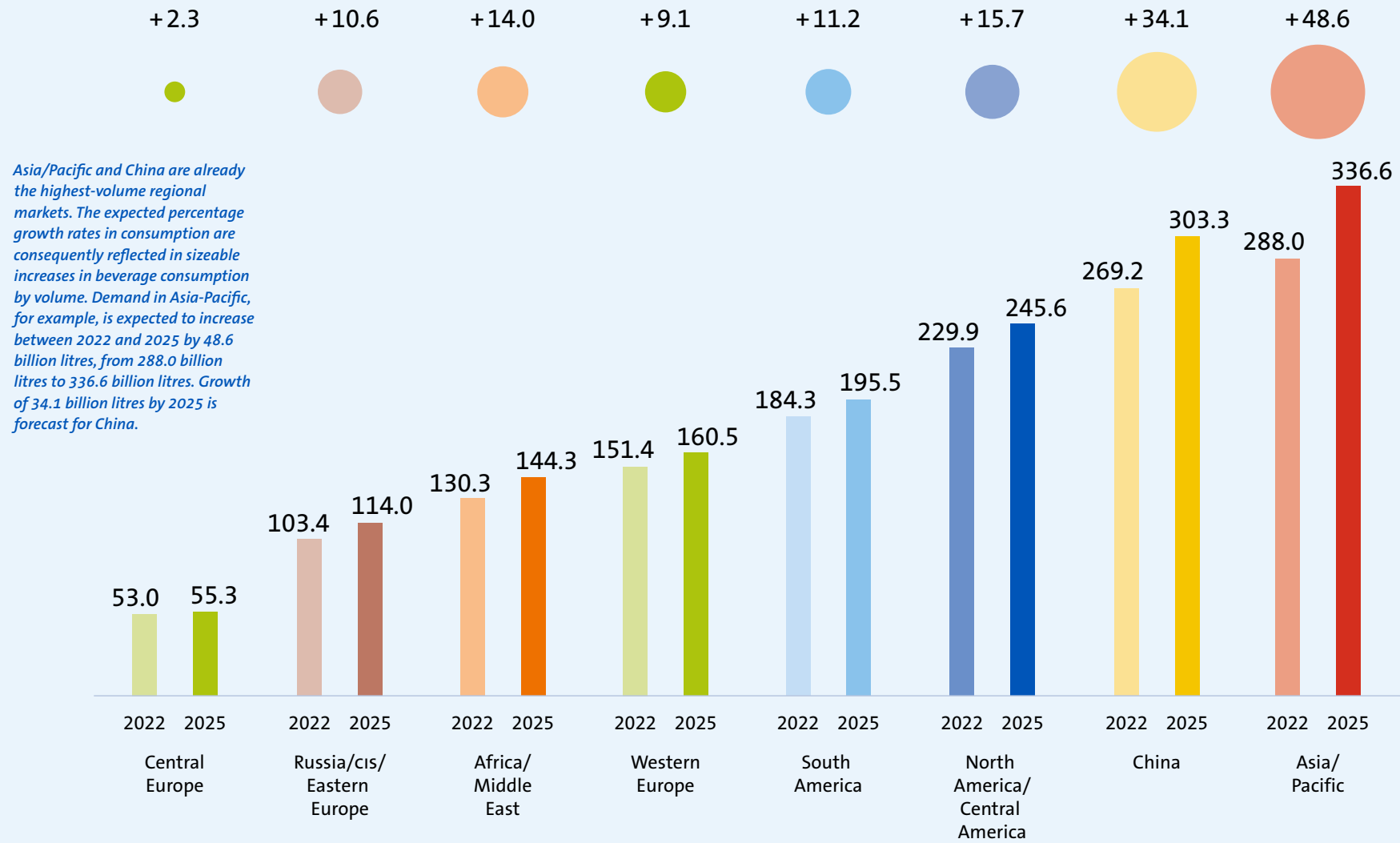


### Global consumption of packaged beverages by region: annual growth 2022–2025





Global consumption of packaged beverages by region: **billion litres\***



\*Forecast

● = Growth between 2022 and 2025 (billion litres)

Sources: Global Data



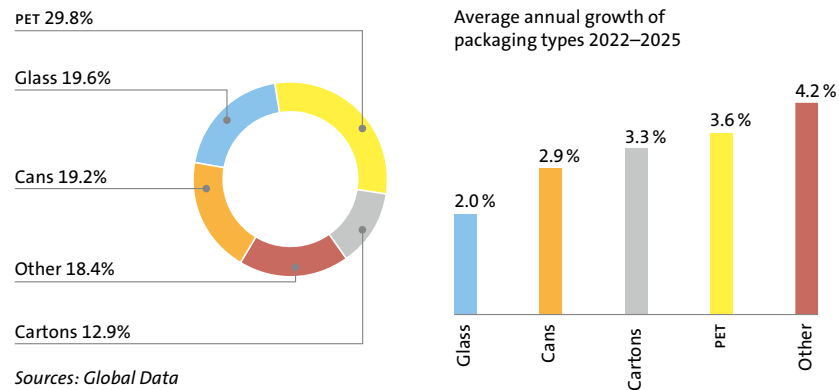


## Strong growth trend in PET beverage containers continues

*Around 30% of the total 1,894 billion containers filled with beverages in 2022 were made of polyethylene terephthalate (PET). Demand for PET bottles is expected to increase particularly rapidly in the coming years.*

Another important figure for Krones alongside beverage consumption by volume is the number of units filled. Most beverage packaging is made of plastic, glass, metal (cans) or cartons. According to preliminary figures from Global Data, some 1,894 billion containers were filled worldwide in 2022. That was 3.9% more than in the previous year (1,823 billion). By 2025, the number of units filled is expected to rise to 2,083 billion. This corresponds to an annual average growth rate of 3.2%.

Global beverage market by packaging material in 2022 (based on units filled)



Bottles made of the **polyethylene terephthalate (PET) plastic** account for the largest share of beverage containers packaged worldwide. According to Global Data figures, 565 billion or 29.8% of the world's bottled beverage containers were made of PET in 2022. The main reason for the leading position of PET is its widespread use for bottled water, which is by far the most widely consumed beverage. In 2022, about three out of four water bottles were made of PET. The

use of PET bottles is expected to continue growing disproportionately strongly in the next few years. Annual growth averaging 3.6% is forecast for the years 2022 to 2025 according to figures from Global Data.

The second most commonly used material for beverage packaging is **glass** (market share in 2022: 19.6%). Glass bottles account for a large proportion of bottled beer, wine and spirits. Demand for alcoholic beverages is expected to grow at a lower rate than overall beverage consumption in the coming years. As a result, the expected average annual growth rate for glass beverage packaging through to 2025 is just 2.0%.

A further important beverage packaging material comprises metal, which is used for **cans**. In 2022, cans accounted for 19.2% of packaged beverage containers worldwide. Cans are mainly used for beer, carbonated soft drinks and new drinks. The number of cans used for beverage packaging is expected to increase by an average of 2.9% per year from 2022 to 2025.

**Cartons** accounted for 12.9% of beverage containers in 2022. They are mostly used to package milk, dairy drinks, fruit juices and vegetable juices. By 2025, the number of cartons used for beverage packaging is expected to rise by an average of 3.3% per year.

Bags made of plastic and aluminium foil accounted for a significant share of the **other packaging** category in 2022. These are mainly filled with milk, water and fruit juices.

As one of the leading providers of machines and lines for the production, filling and packaging of PET containers, Krones benefits from the above-average growth in PET packaging. The company also has a strong market position in lines for filling and packaging beverages in glass bottles and cans. Krones does not provide solutions for carton packaging.



## Krones in figures

- Krones grew strongly in 2022. Revenue went up by 15.8% year on year to €4,209.3 million. Due to very high customer demand, order intake improved by 34.0% to €5,782.8 million.
- The EBITDA margin improved from 8.1% in the previous year (excluding one-off effects) to 8.9%.
- Krones plans to pay a dividend of €1.75 per share for the successful financial year (previous year: €1.40).

	Guidance for 2022*	Revised guidance for 2022**	2022 actual
Revenue growth	5–8%	10–12%	15.8%
EBITDA margin	8–9%	8–9%	8.9%
ROCE***	10–12%	10–12%	14.1%

\* From the report on expected developments in the 2021 management report, March 2022

\*\* As per ad-hoc disclosure of 19 October 2022

### Krones' revenue grows strongly by 15.8% to €4,209.3 million

*For the first time in the company's history, Krones generated revenue of over €4 billion in 2022. Revenue grew by 15.8% to €4.21 billion. Krones thus exceeded its already upgraded growth target for 2022 of 10% to 12%.*

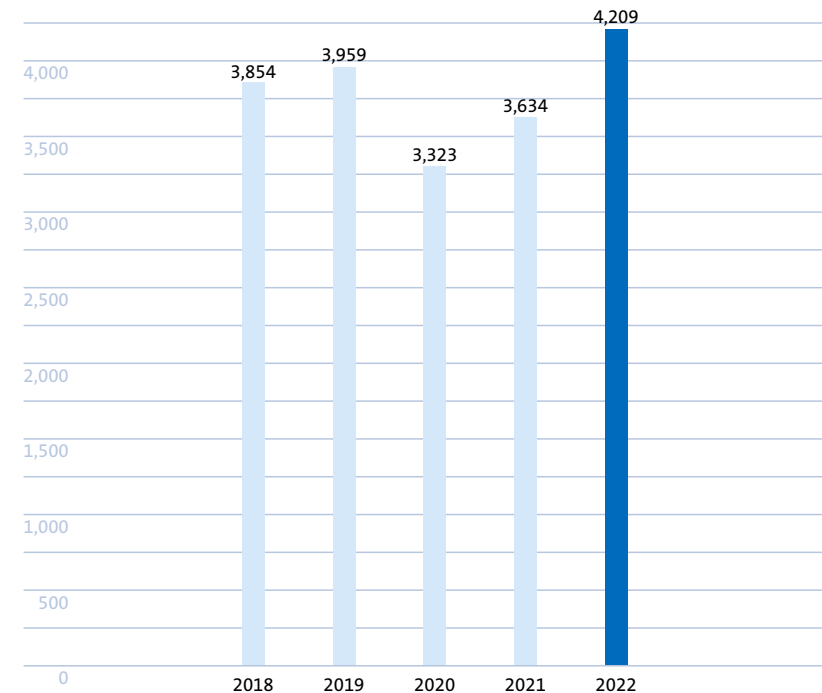
Krones significantly increased revenue in 2022 despite difficult conditions. Thanks to its great flexibility, the company managed well with the resource shortages and international supply chain problems and maintained good production capacity utilisation overall. Revenue grew by 15.8% year on year in 2022, from €3,634.5 million to €4,209.3 million.

Krones thus exceeded the upgraded growth target of 10% to 12% published in October 2022 (original target 5% to 8%). The company generated much of the revenue growth from increased sales of new machinery. Due to long lead times

in some cases, price increases for our products and services made only a small contribution to growth in 2022. Krones' revenue in the reporting period was not materially affected by exchange rates, acquisitions or divestments.

Due to the sharp rise in customer demand both for filling and packaging lines and for individual machines, Krones' new machinery business grew disproportionately strongly in 2022. However, service revenue also significantly exceeded the prior-year figure. The easing of Covid-related travel restrictions had a positive impact on after-sales business.

Krones Group revenue (€ million)



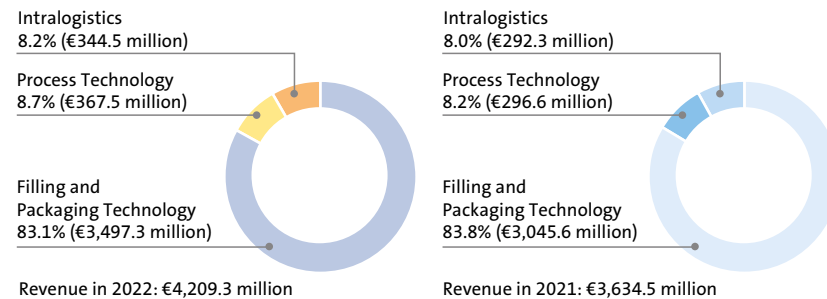


## Revenue by segment

*All three of Krones' segments grew strongly in 2022.*

Revenue in the core segment, Filling and Packaging Technology, increased in 2022 by 14.8% year on year, from €3,045.6 million to €3,497.3 million. The segment's share of consolidated revenue decreased to 83.1% (previous year: 83.8%).

### Share of consolidated revenue



In the Process Technology segment, revenue increased by a disproportionately large 23.9%, from €296.6 million in the previous year to €367.5 million. The share of consolidated revenue accounted for by the segment went up from 8.2% to 8.7%.

From the beginning of 2022, Krones reports on Intralogistics as a third segment. Revenue there rose by 17.9%, from €292.3 million in the previous year to €344.5 million in the reporting period. This corresponds to an 8.2% share of consolidated revenue (previous year: 8.0%).



Further information can be found under "Report from the segments" beginning on page 163 and under "Segment reporting" in the notes to the consolidated financial statements on page 216.

## Revenue by region

In Germany, Krones' revenue in 2022 went up at a slightly lower rate than total Group revenue, increasing by 12.9% from €375.5 million to €424.0 million. Revenue in Germany accounted for 10.1% of consolidated revenue (previous year: 10.3%).

*Krones generated some 90% of consolidated revenue internationally in 2022. The company recorded strong growth in Europe and in North and Central America.*

Krones generated very high rates of revenue growth in 2022 in Europe (excluding Germany). In 2021, business there had still been partly affected by Covid. In the major Western Europe sales region, revenue rose by 27.9% from €517.9 million in the previous year to €662.5 million in the reporting period. The rate of increase was similarly high in Central Europe (Austria, Switzerland and the Netherlands), where revenue increased by 27.6%, from €243.0 million to €310.0 million. In the smaller Eastern Europe sales region, Krones improved revenue by 31.7% to €185.6 million (previous year: €140.9 million).

Share of consolidated revenue	2022		2021		Change
	€ million	%*	€ million	%*	
Germany	424.0	10.1	375.5	10.3	+12.9
Central Europe (excluding Germany)	310.0	7.4	243.0	6.7	+27.6
Western Europe	662.5	15.7	517.9	14.2	+27.9
Eastern Europe	185.6	4.4	140.9	3.9	+31.7
Russia, Central Asia (cis)	50.2	1.2	97.3	2.7	-48.4
Middle East/Africa	486.1	11.5	421.9	11.6	+15.2
Asia-Pacific	467.4	11.1	408.4	11.2	+14.4
China	344.9	8.2	307.8	8.5	+12.1
North and Central America	920.1	21.9	764.2	21.1	+20.4
South America/Mexico	358.5	8.5	357.5	9.8%	+0.3
<b>Total</b>	<b>4,209.3</b>	<b>100.0</b>	<b>3,634.5</b>	<b>100.00</b>	<b>+15.8</b>

\* Share of total revenue

*Krones continues to have a very balanced revenue split. In 2022, the company generated 44.9% (previous year: 47.7%) of consolidated revenue in emerging markets. The share of revenue generated in mature industrialised countries was 55.1% (previous year: 52.3%).*

In all, Krones' revenue in Europe (excluding Germany) increased by a disproportionately large 28.4% to €1,158.1 million (previous year: €901.8 million).

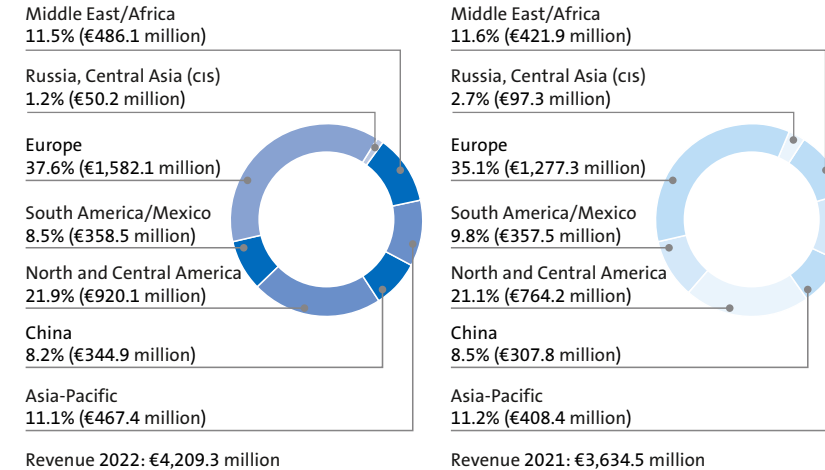
The share of consolidated revenue consequently increased to 27.5% (previous year: 24.8%).

As expected, revenue in the Russia/CIS region decreased significantly by 48.4% to €50.2 million in the reporting period (previous year: €97.3 million). That corresponds to a share of consolidated revenue of just 1.2% (previous year: 2.7%).

Business developed well for Krones in 2022 in the markets outside Europe. The company continued its strong growth in North and Central America in 2022. Revenue there went up by 20.4%, from €764.2 million to €920.1 million. At €358.5 million, revenue in the South America/Mexico region remained stable at the previous year's level (€357.5 million). Revenue in the Middle East/Africa region climbed by 15.2% to €486.1 million (previous year: €421.9 million). Krones increased revenue in the Asia/Pacific sales region by a similarly strong 14.4% to €467.4 million. In China, despite pandemic-related lockdowns, revenue improved by 12.1% in 2022 to €344.9 million (previous year: €307.8 million).

Overall, revenue outside Europe grew in the reporting period by 14.0% to €2,577.0 million (previous year: €2,259.8 million). Its share of consolidated revenue consequently decreased slightly to 61.2% (previous year: 62.2%).

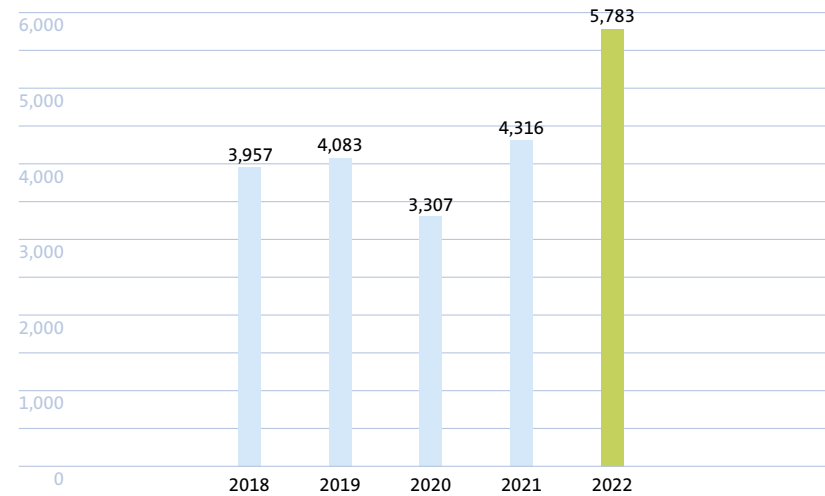
#### Share of consolidated revenue





## Order intake

Krones Group order intake (€ million)



### Order intake increased by 34.0% to €5,782.8 million

*As a full-service supplier, Krones benefited from the good market conditions in 2022 and secured numerous new orders. The contract value of orders increased by around one-third year on year to €5.78 billion.*

Customer demand for our products and services was very strong in 2022. Order intake went up in the reporting period by 34.0% year on year, from €4,316.2 million to €5,782.8 million. In the first three quarters of 2022, the contract value of orders reached an extremely high level of around €1.5 billion in each quarter. As expected, new orders slowed slightly in

the fourth quarter (order intake: €1,183.1 million). However, the final quarter showed no signs of a prolonged downturn in the international beverage industry's brisk market activity and willingness to invest. There were still numerous investment projects on the market at the end of 2022.

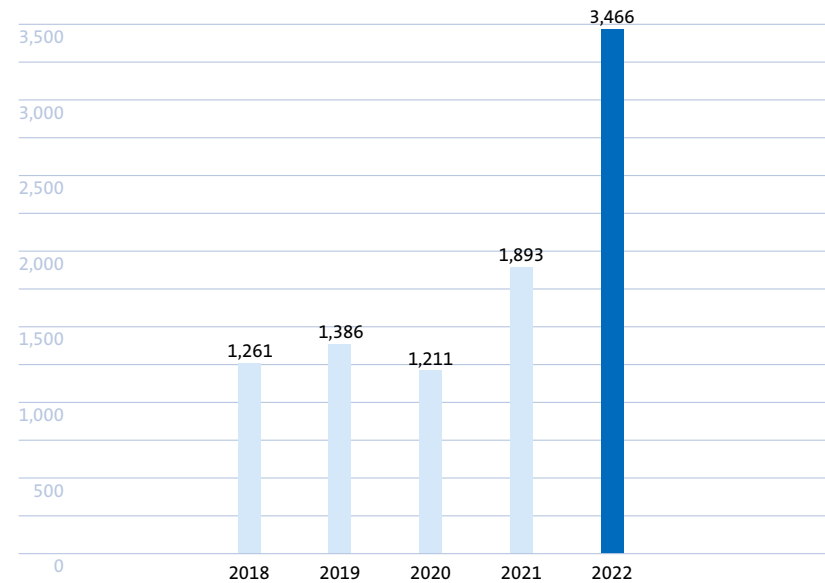
With the new record order intake, Krones exceeded its target for 2022. As a full-service supplier with a global footprint, the company benefited from the good market conditions. Another important factor in the significant increase in orders was our very good standing with customers. Our customers highly appreciate the fact that, even in difficult times, we remain a reliable partner for the implementation of capital expenditure projects worldwide and largely meet our promised delivery dates. Krones' price increases did not influence customers' willingness to invest in 2022. Exchange rates, acquisitions and divestments did not have a material impact on the contract value of orders in the reporting period.

Order intake significantly exceeded the previous year's level in each of Krones' three segments. On a regional basis, 2022 saw the contract value of orders grow faster than Group order intake in North America/Central America, Asia/Pacific, Eastern Europe, South America and the Middle East/Africa region. Western Europe, Central Europe and China – regions that experienced very strong order growth in the previous year – recorded a further significant increase in order intake in 2022. However, the rate of increase in those regions remained below the total Group figure.



## Order backlog

Krones Group order backlog at 31 December (€ million)



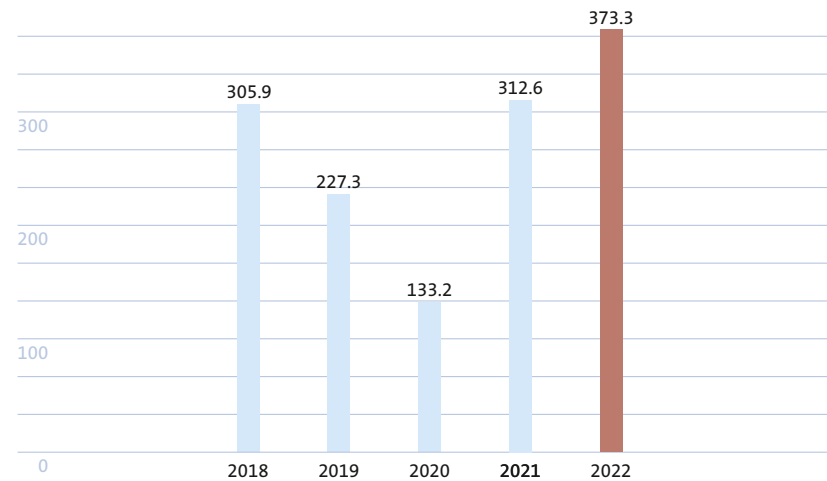
### Krones had an order backlog totalling €3,466.4 million at the end of 2022

As a result of the very strong customer demand, Krones' order backlog increased substantially despite the revenue growth in 2022. At €3,466.4 million at the end of December 2022, the order backlog was up €1,573.4 million or 83.1% on the previous year-end (€1,893.0 million). The comfortable order backlog enhances the company's overall planning certainty. With the orders already booked, production capacity utilisation can be kept at stable levels in the coming quarters. The tight situation on international procurement markets continues, especially for electronic components. It must therefore be kept in mind that material availability continues to be a limiting production factor for Krones. This means that our customers have to expect long delivery times well into the 2024 financial year.



## Krones Group earnings

Krones Group EBITDA (in € million)



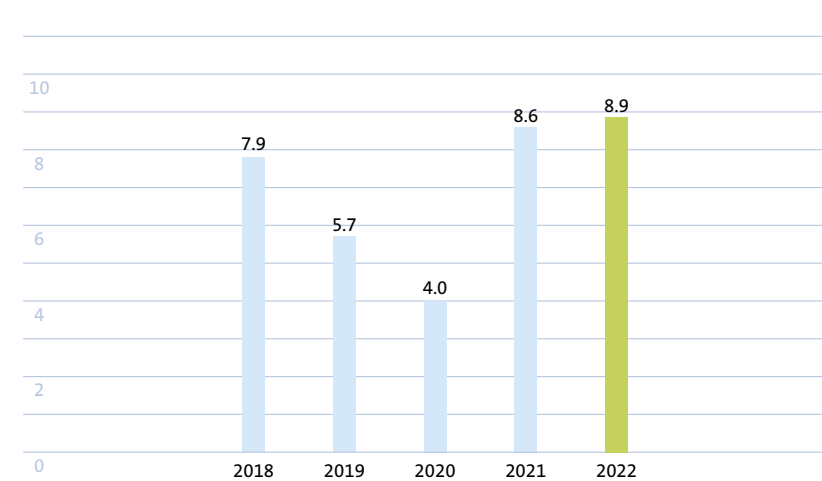
### Krones improves profitability under challenging conditions

*Krones generated profitable growth in 2022. The EBITDA margin increased from 8.1% in the previous year (excluding one-off effects on earnings) to 8.9%.*

Krones faced a number of challenges in 2022. For example, the tight situation on the procurement markets prevented us from producing at full capacity. That affected earnings. The company was also confronted with rising material and freight costs.

However, due to the wide-ranging efficiency measures and the company's great flexibility, Krones improved profitability in the reporting period as forecast. This was also partly due to our price increases, which enabled us to largely offset the higher costs.

Krones Group EBITDA margin (%)

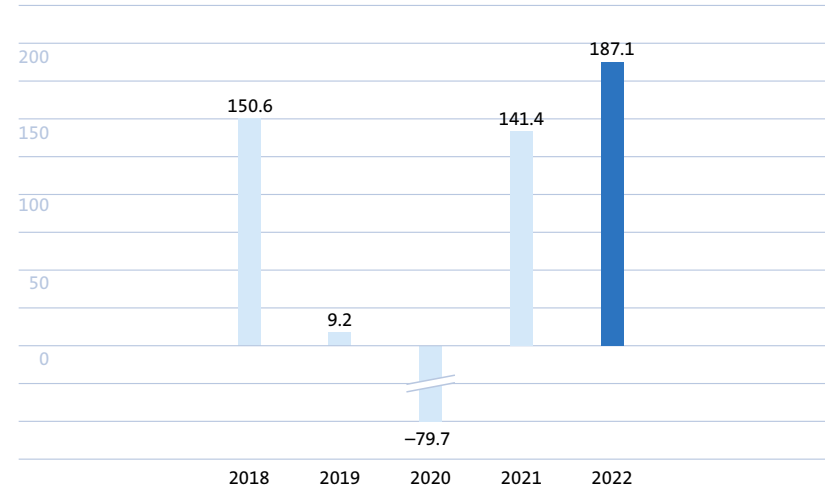


Earnings before interest, taxes, depreciation and amortisation (EBITDA) rose in 2022 by 19.4% year on year, from €312.6 million to €373.3 million. The EBITDA margin improved to 8.9% (previous year: 8.6%). It should be noted that EBITDA in the previous year was positively impacted by one-off effects totalling €17 million. Excluding those one-off effects, the EBITDA margin in 2021 was 8.1%. As forecast, Krones reached the upper end of the EBITDA margin target of 8% to 9% for 2022.

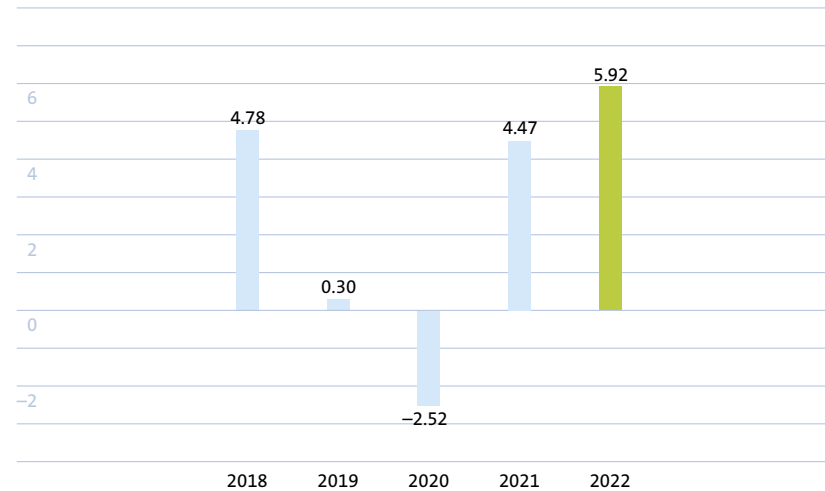
Due to the higher financial income/expense and stable depreciation and amortisation, earnings before taxes (EBT) grew significantly more strongly in 2022 than EBITDA. EBT climbed by 36.5%, from €177.3 million in the previous year to €242.1 million. Krones improved the EBT margin to 5.8% (previous year: 4.9%). Excluding one-off effects on earnings, the EBT margin in 2021 was 4.4%.



Krones Group net income (€ million)



Krones Group earnings per share (€)

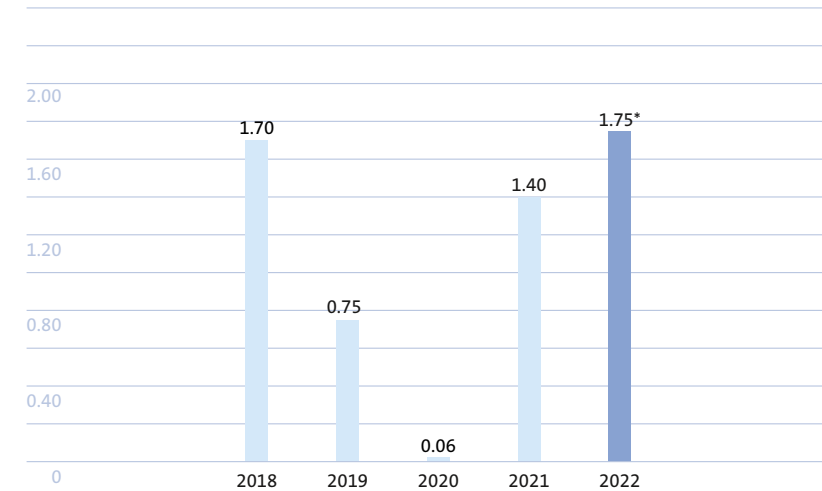


Krones' consolidated net income increased by 32.3% in 2022, from €141.4 million in the previous year to €187.1 million. This corresponds to earnings per share of €5.92 (previous year: €4.47). Krones' earnings figures were not materially affected by exchange rates, acquisitions or divestments in 2022.

### Krones increases dividend to €1.75 per share

At the Annual General Meeting on 23 May 2023, in line with the long-term dividend policy, the Executive Board and Supervisory Board will be proposing the distribution of a dividend of €1.75 per share for the 2022 financial year. Krones will thus increase its dividend by €0.35 or 25.0% compared with the previous year (€1.40), allowing the company's owners to share commensurately in its success.

Krones Group dividend per share (€)




\* As per proposal for the appropriation of earnings available for distribution





## Krones Group earnings structure

€ million	2022	2021	Change
Revenue	4,209.3	3,634.5	+15.8%
Changes in inventories of finished goods and work in progress	+48.4	+19.6	+146.9%
Total operating performance	4,257.7	3,654.0	+16.5%
Other own work capitalised	+43.4	+53.6	-19.0%
Other operating income	+165.0	+161.8	+2.0%
Goods and services purchased	-2,113.8	-1,807.4	+17.0%
Personnel expenses	-1,269.7	-1,176.7	+7.9%
Other operating expenses	-709.3	-572.6	+23.9%
EBITDA	373.3	312.6	+19.4%
Depreciation and amortisation on fixed assets	-142.9	-141.7	+0.8%
EBIT	230.4	170.9	+34.8%
Financial income/expense	+11.7	+6.4	+82.8%
EBT	242.1	177.3	+36.5%
Income tax	-55.0	-35.9	+53.3%
Consolidated net income	187.1	141.4	+32.3%

 For further information, please see the full statement of profit and loss on p. 209.

Krones mastered the challenges well in 2022 and made the most of the growth opportunities that arose. The company thus significantly increased revenue and total operating performance in the reporting period. At €4,209.3 million, revenue was 15.8% higher than in the prior-year period, which was still impacted by Covid. Total operating performance increased by a slightly higher rate of 16.5% to €4,257.7 million because of an increase in finished goods and work in progress. These grew by €48.4 million in the reporting period, compared with €19.6 million in the previous year.

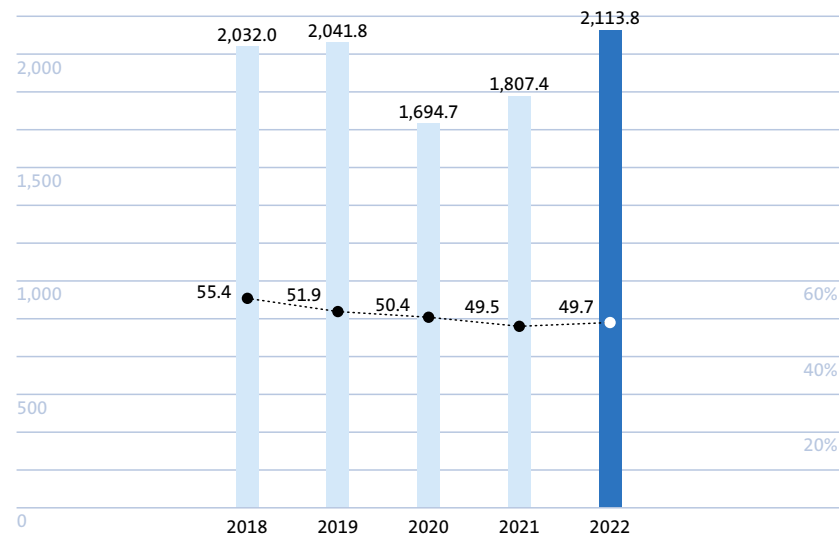
Krones also significantly improved profitability in 2022. This was primarily due to consistent implementation of the cost-cutting measures launched in 2020, good procurement and production management and Krones' great flexibility. The company thus kept the material expense ratio stable despite resource constraints, and significantly reduced the personnel expense ratio.

*Krones' revenue and key earnings figures were not materially affected by exchange rates, acquisition or divestments in 2022.*

*Krones again improved profitability in the reporting period. This was mainly due to a significantly lower personnel expense ratio.*

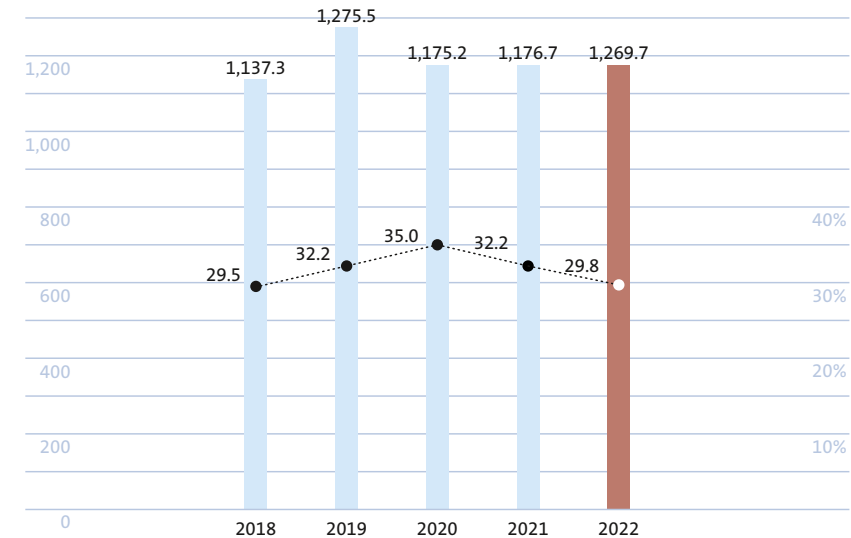


Goods and services purchased (€ million) and material expense ratio (%)



Cost of goods and services purchased increased by 17.0% to €2,113.8 million in the reporting period, slightly more than the rise in total operating performance. Over the reporting year, Krones was largely able to compensate for price increases and bottlenecks in material procurement, especially for steel and electrical components, by means of sophisticated production and procurement management. Our price increases were also reflected in the near-constant material expense ratio: The ratio of goods and services purchased to total operating performance was 49.7% in the reporting period, only slightly higher than the previous year's good level of 49.5%.

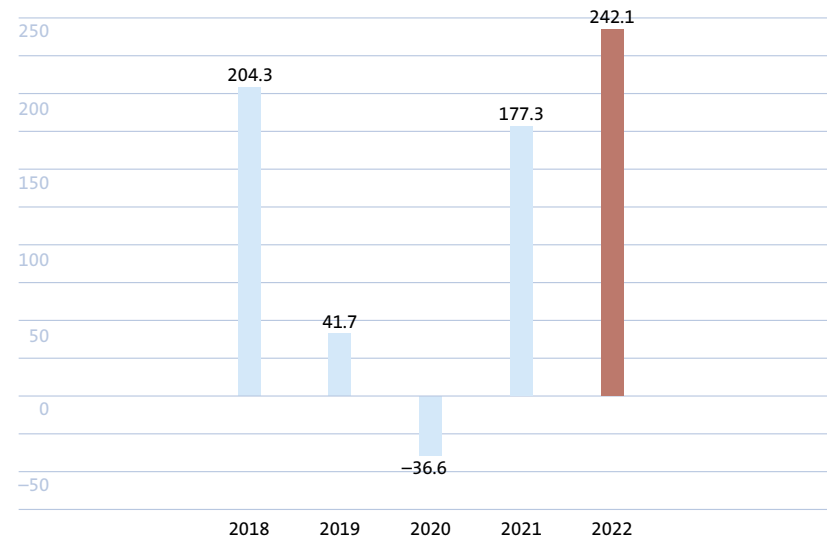
Personnel expenses (€ million) and personnel expense ratio (%)



Personnel expenses rose by significantly less in the reporting period than total operating performance, with an increase of just 7.9% to €1,269.7 million. As a result, the personnel expense ratio – the ratio of personnel expenses to total operating performance – went down from 32.2% to 29.8%. This significant improvement in the personnel expense ratio was mainly due to the workforce adjustment measures implemented and completed in the 2021 financial year. These are reflected in full-year figures for the first time in 2022.



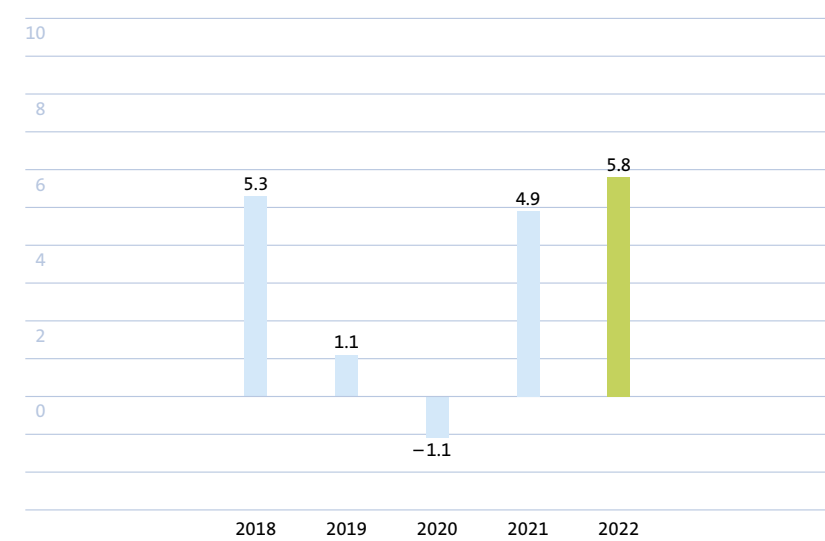
Krones Group EBT (€ million)



At €709.3 million, other operating expenses were 23.9% higher in the reporting period than the previous year's figure of €572.6 million. The increase was mostly due to higher freight and travel expenses because of the greater volume of business. Other operating expenses also include costs incurred for drinktec, the world's leading trade fair for the beverage and liquid food industry, which is held every four years. Other operating income increased slightly, from €161.8 million to €165.0 million. Own work capitalised, on the other hand, fell from €53.6 million in the previous year to €43.4 million. The net balance of other operating income and expenses and own work capitalised changed from -€357.3 million in the prior-year period to -€500.9 million. As a percentage of total operating performance, this represented an increase from 9.8% to 11.8%.

Krones' EBITDA (earnings before interest, taxes, depreciation and amortisation) consequently comes to €373.3 million for the reporting period – a year-on-year increase of 19.4% on the previous year's figure of €312.6 million. The EBITDA margin increased from 8.6% in the previous year to 8.9%. Excluding one-off

Krones Group EBT margin (%)



effects on earnings, the EBITDA margin in the previous year was 8.1%. Because depreciation and amortisation of fixed assets increased only slightly, to €142.9 million (previous year: €141.7 million), earnings before interest and taxes (EBIT) climbed significantly more strongly in the reporting period than EBITDA, increasing by 34.8% to €230.4 million.

Krones' financial income/expense was positive at €11.7 million in 2022 (previous year: €6.4 million). Alongside slightly higher investment income of €3.1 million (previous year: €2.0 million), this was due to the €4.2 million improvement in interest income/expense to €8.6 million. Earnings before taxes (EBT) consequently went up by 36.5% from €177.3 million to €242.1 million. The EBT margin rose from 4.9% in the previous year (adjusted: 4.4%) to 5.8%. As the company's tax rate of 22.7% was higher than the previous year's low level (20.2%), consolidated net income improved somewhat less strongly than EBT, increasing by 32.3% to €187.1 million (previous year: €141.4 million).



## Statement of cash flows

€ million	2022	2021
<b>Earnings before taxes</b>	<b>242.1</b>	<b>177.3</b>
Non-cash changes	+189.8	+153.7
Changes in working capital	+136.0	+124.5
Changes in other assets and liabilities	-89.2	-119.6
<b>Cash flow from operating activities</b>	<b>478.7</b>	<b>335.9</b>
Capital expenditure for intangible assets and property, plant and equipment	-118.2	-104.9
M&A activities	-27.2	±0.0
Other	+37.7	-27.7
<b>Free cash flow</b>	<b>371.0</b>	<b>203.3</b>
Cash flow from financing activities	-79.8	-60.9
Other	-0.1	+24.0
<b>Net change in cash and cash equivalents</b>	<b>291.1</b>	<b>166.4</b>
<b>Cash and cash equivalents at the end of the period</b>	<b>674.5</b>	<b>383.4</b>

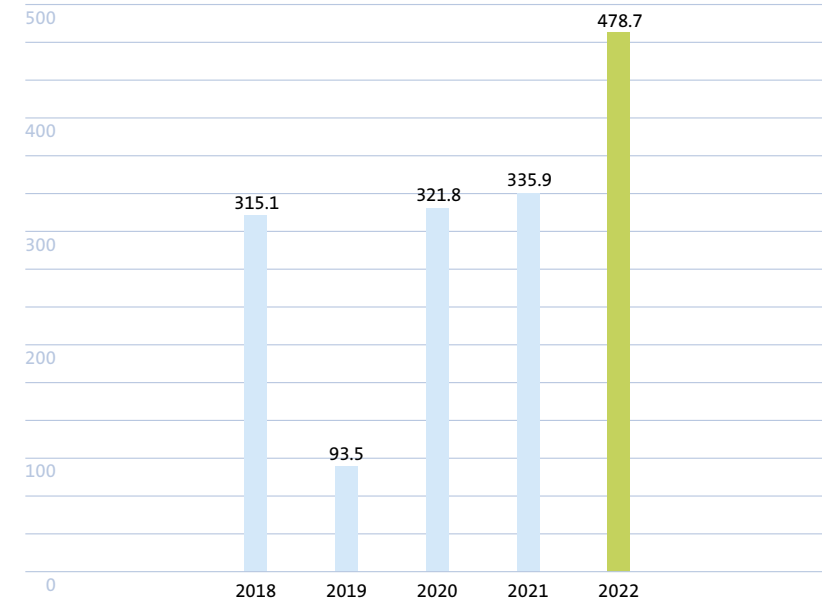


For further information, please see the full statement of cash flows on page 213.

*Krones improved cash flow from operating activities in the 2022 financial year by €142.8 million to €478.7 million. The exceptionally high figure was partly due to the marked reduction in working capital.*

Krones increased cash flow from operating activities in the reporting period by a substantial €142.8 million year on year to €478,7 million. In addition to €64.8 million higher earnings before taxes, changes in other assets and liabilities also contributed significantly to the better cash flow from operating activities. At -€89.2 million, these were smaller than the previous year's large figure of

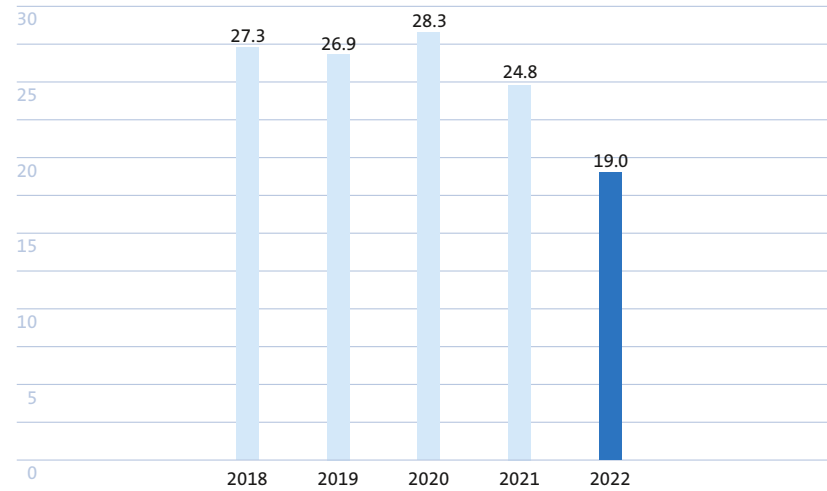
Krones Group cash flow from operating activities (€ million)



-€119.6 million, which was still heavily impacted by payments for the workforce programme. Non-cash changes increased cash flow from operating activities by €189.8 million in the reporting period, an even larger amount than in the previous year (€153.7 million). As in the previous year, Krones was able to reduce working capital in 2022. This was partly due to the advance payments from customers resulting from the high order intake. In total, the company reduced working capital by €136.0 million in 2022 (previous year: €124.5 million).



Krones Group working capital to revenue (% average over four quarters)



#### Working capital as a percentage of revenue improved from 24.8% to 19.0%

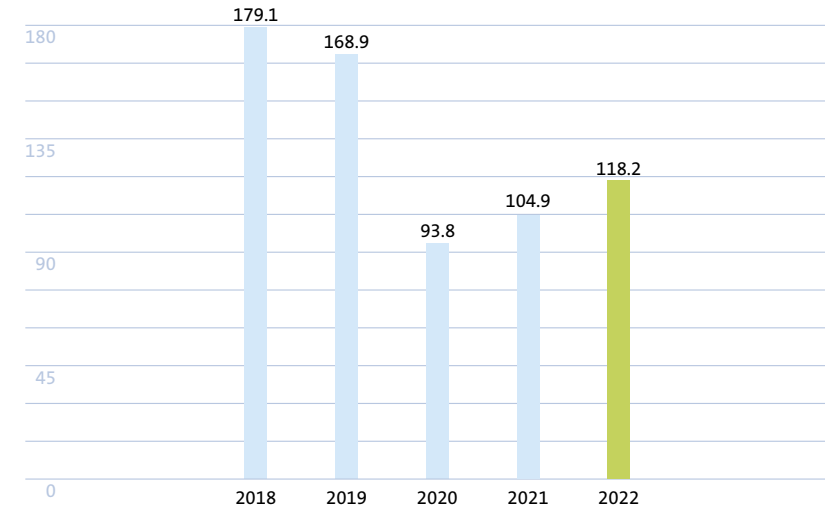
*Krones considerably improved the ratio of average working capital to revenue in the reporting period. The ratio decreased from 24.8% to 19.0%.*

Krones once again significantly reduced average working capital over the past four quarters as a percentage of revenue to 19.0% in the reporting period (previous year: 24.8%). This decrease reflects the strong revenue growth and rising advance payments from customers

due to the larger order intake. While receivables as a percentage of revenue remained stable compared with the previous year, the fact that inventories grew by more than revenue prevented an even better improvement in the ratio.

Working capital at the reporting date as a percentage of revenue also showed a significant reduction, at 14.1% (previous year: 20.1%). The supplier finance programme used by Krones is accounted for under trade payables as it does not significantly alter the contractual terms of the payables. Correspondingly, the cash outflow is presented in cash flow from operating activities.

Krones Group capital expenditure for PP&amp;E and intangible assets (€ million)



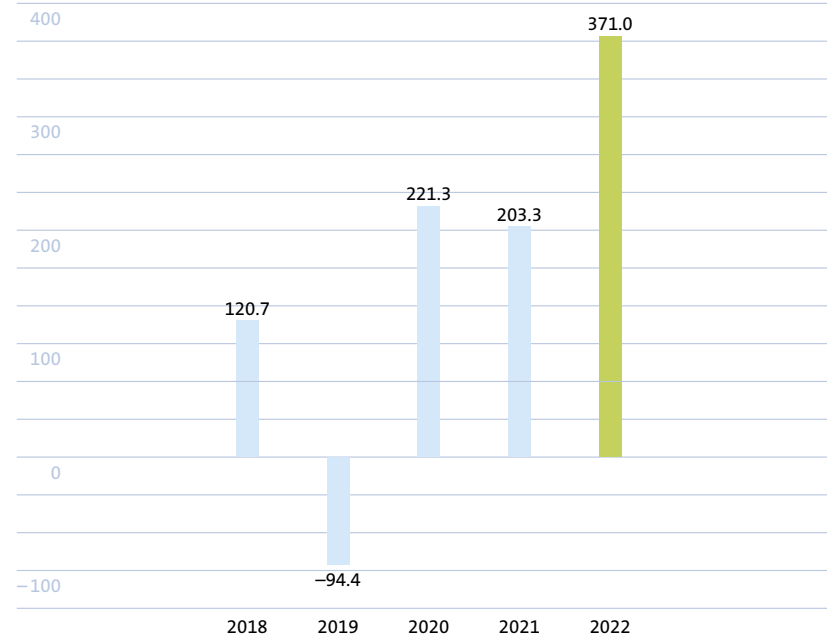
#### Krones generated an exceptionally large free cash flow of €371.0 million

Krones invested €118.2 million in property, plant and equipment and intangible assets in the reporting period, a planned increase relative to the relatively low figure of €104.9 million in the previous year. Relative to revenue, the capital expenditure ratio was stable in 2022 at 2.8% (previous year: 2.9%) and thus in line with expectations. The ratio of capital expenditure to depreciation and amortisation increased from 0.74 in the previous year to 0.83. M&A activities had a negative cash flow effect of €27.2 million in the reporting period. In 2021, there were no M&A transactions that impacted cash flow.

*As planned, the company increased capital expenditure in the 2022 financial year to €118.2 million (previous year: €104.9 million). The ratio of capital expenditure to depreciation and amortisation was 0.83 (previous year: 0.74).*



Krones Group free cash flow (€ million)

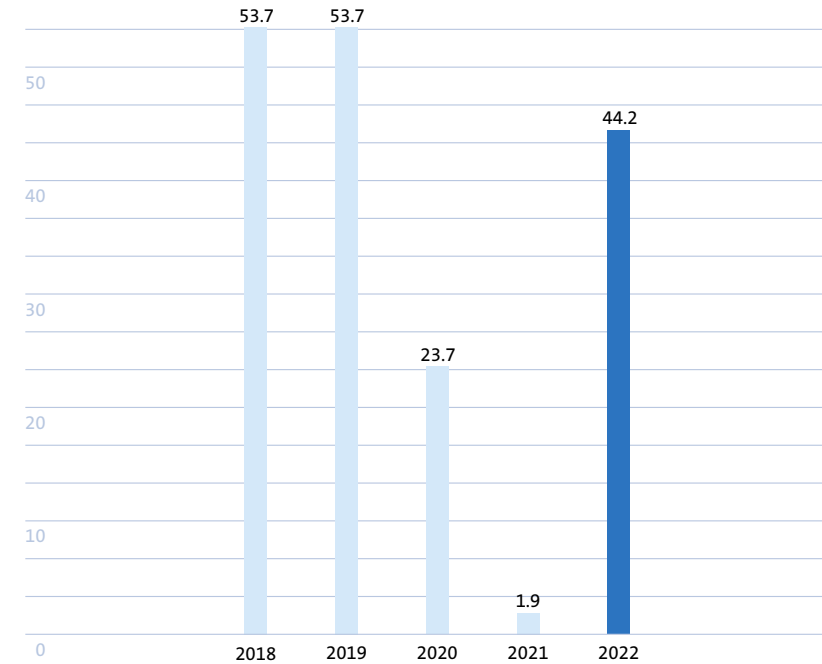


*Krones generated an exceptionally large free cash flow of €371.0 million in 2022 (previous year: €203.3 million).*

Despite higher capital expenditure, the company increased free cash flow (net cash generated from operating activities) by €167.7 million to the exceptionally high level of €371.0 million (previous year: €203.3 million).

The cash outflow from financing activities was €79.8 million in the reporting period (previous year: €60.9 million). In the reporting period, this item includes the outflow of funds for the dividend payout of €44.2 million (previous

Krones Group dividend payout (€ million)




year: €1.9 million) as well as €35.5 million for the repayment of lease liabilities (previous year: €32.0 million). Changes in exchange rates and in the consolidated group decreased liquidity by €0.1 million, after a €24.0 million increase in the previous year. In total, Krones had cash and cash equivalents of €674.5 million at 31 December 2022 (previous year: €383.4 million). Net cash (cash and cash equivalents less bank debt) went up from €378.3 million in the previous year to €669.5 million.



## Assets and capital structure

€ million at 31 December	2022	2021	2020
Non-current assets	1,164	1,133	1,093
of which fixed assets	1,064	1,001	990
Current assets	3,007	2,362	1,957
of which cash and equivalents	675	383	217
Equity	1,598	1,392	1,200
Total debt	2,573	2,103	1,850
Non-current liabilities	375	434	476
Current liabilities	2,198	1,669	1,374
<b>Total</b>	<b>4,171</b>	<b>3,495</b>	<b>3,050</b>

 For further information, please see the full statement of financial position on page 211 and 212.

*Due to the substantial rise in business volume, Krones' total assets rose by 19.4% in the reporting period.*

Krones' total assets increased by 19.4% in the reporting period and thus by more than the 16.5% rise in total operating performance. Total assets came to €4,171.2 million as of 31 December 2022 (31 December 2021: €3,494.8 million). The increase was mainly due to the rise in current assets and liabilities and to the higher equity.

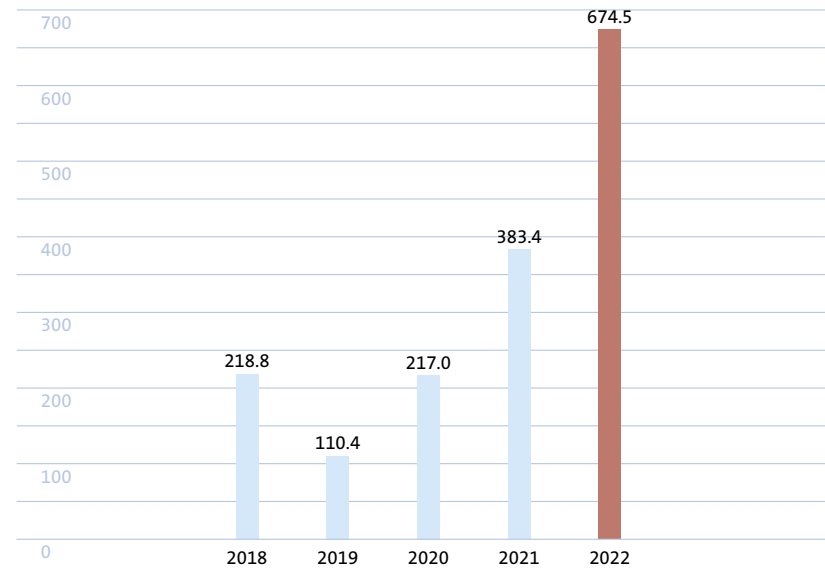
There were no material exchange rate, acquisition or divestment effects in the reporting period on any assets side or equity and liabilities side items of the statement of financial position.

Non-current assets rose between January and December 2022 by 2.8% to €1,164.2 million (31 December 2021: €1,132.8 million). Fixed assets stood at €1,064.0 million as of the reporting date (31 December 2021: €1,001.4 million). The increase in fixed assets mainly related to intangible assets. These went up from €303.2 million at the end of 2021 to €349.3 million. Property, plant and equipment and right-of-use assets increased to €693.7 million (31 December 2021: €667.0 million). Non-current financial assets, on the other hand, were down €10.2 million to €18.6 million.

Krones' current assets rose strongly in 2022 due to the growth in business volume. Current assets came to €3,007.0 million as of the reporting date, which is 27.3% or €645.0 million higher than the figure as of 31 December 2021. This was mainly due to the increase in cash and cash equivalents. Due to the large free cash flow, these increased by €291.1 million, or 75.9%, to €674.5 million in the reporting period. Contract assets, inventories and trade receivables also increased substantially due to the strong revenue growth. Between January and December, contract assets went up by €133.6 million to €727.6 million and trade receivables by €76.9 million to €820.2 million. With supply chains set to remain stretched going forward, there was a significant build-up of inventories in the 2022 financial year by €155.8 million to €589.4 million.



Krones Group cash and cash equivalents at 31 December (€ million)



On the equity and liabilities side of the statement of financial position, Krones increased current liabilities between January and December 2022. These went up by 31.7% or €529.4 million to €2,198.2 million. This was mostly due to a €301.2 million increase in contract liabilities to €901.4 million. That increase mainly reflected the higher prepayments from customers. Due to the increased business volume, trade payables went up by €169.1 million to €684.2 million

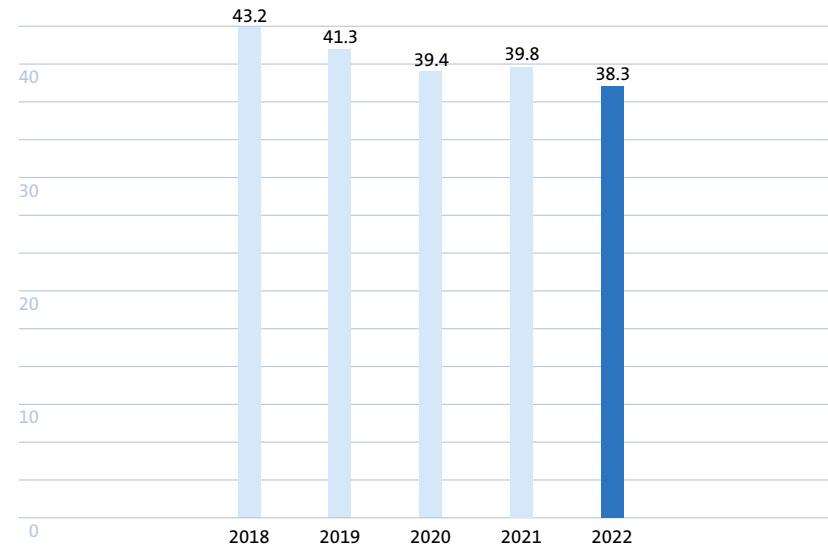
(31 December 2021: €515.1 million). This includes supplier finance liabilities of € 123.1 million (previous year: €81.1 million). These outstanding liabilities are settled with suppliers by a bank before they are due. The original liabilities to the suppliers are unaffected in substance because the acknowledgement of the liability is unaltered. Higher other liabilities and provisions of €391.9 million (31 December 2021: €319.9 million) also contributed to the increase in current liabilities in the reporting period. As in the previous year, the company had no short-term bank debt as of the reporting date.

Non-current liabilities were down as of 31 December 2022. These fell by €59.6 million to €374.8 million. This was mainly due to a decrease in provisions for pensions by €84.6 million to €166.6 million. The main reason for this decrease, most of which is accounted for through other comprehensive income, was the higher discount factor in the reporting period. As the end of 2022, the company had non-current bank debt totalling €5.0 million (31 December 2021: €5.1 million).





Krones Group equity ratio (%)

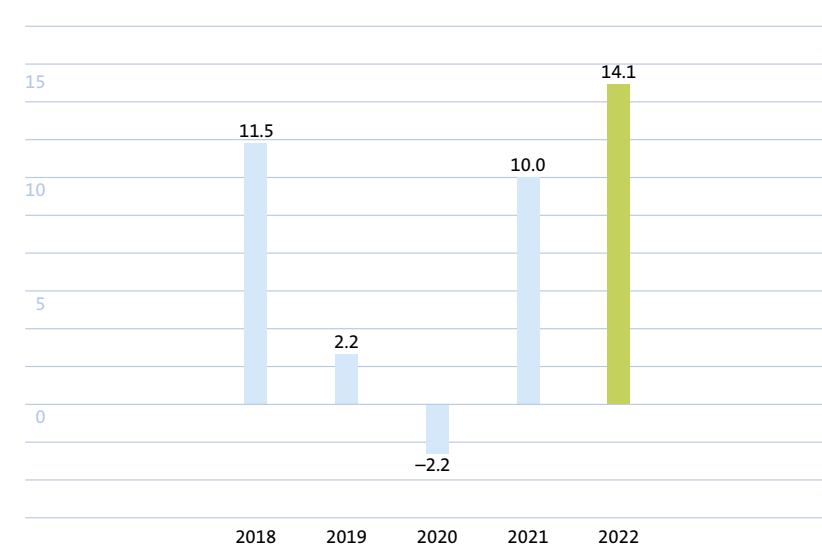


### Significant increases in equity, net cash and ROCE

*The solid 38.8% equity ratio and €670 million in net cash provide a strong basis for further profitable growth at Krones.*

Mainly due to the positive consolidated net income and the reduction in pension provisions, which is accounted for through other comprehensive income, equity increased relative to the 2021 reporting date by €206.5 million to €1,598.1 million. The equity ratio decreased to 38.3% as of 31 December 2022 (31 December 2021: 39.8%) due to the significant increase in total assets. With net cash (cash and cash equivalents less bank debt) of €669.5 million at the end of the reporting period (31 December 2021: €378.3 million), Krones continues to have a very stable and solid financial and capital structure. In addition, Krones had available around €1 billion in unused lines of credit as of 31 December 2022.

Krones Group ROCE (%)



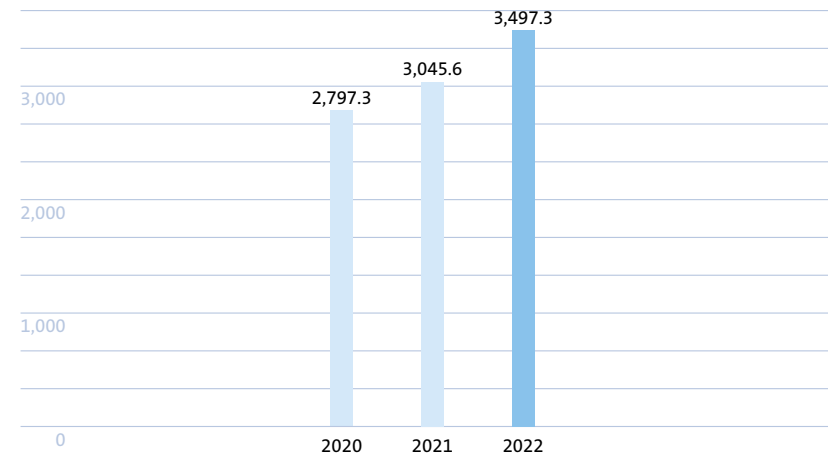
Krones improved return on capital employed (ROCE) – the ratio of EBIT to average net capital employed over the last four quarters – from 10.0% to 14.1% in the reporting period, mainly as a result of the higher EBIT. However, part of the improvement in ROCE was also attributable to the decrease in average working capital while average non-current assets remained stable.



## Report from the segments

### Filling and Packaging Technology segment

Segment revenue (€ million)

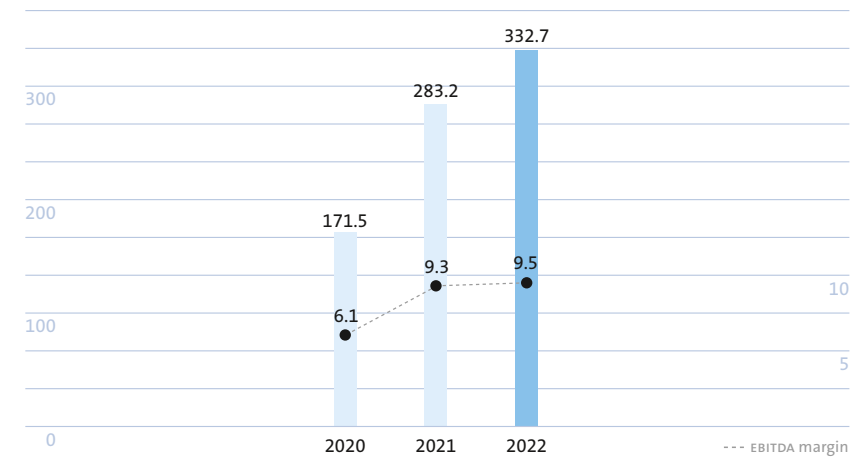


#### Segment revenue

*The core segment's share of consolidated revenue in the reporting period was 83.1% (previous year: 83.8%).*

The core segment, Filling and Packaging Technology, grew more strongly than expected in 2022. Revenue went up by 14.8% year on year, from €3,045.6 million to €3,497.3 million. This exceeded the growth forecast of 8% to 10%. The main driver of the strong increase in revenue was the new machinery business, which grew at a disproportionately high rate. This reflects the strong demand in the preceding quarters. In addition, successful management of production and procurement enabled Krones to maintain good overall production capacity utilisation despite the material shortages. Due to long lead times in some cases, the price increases made only a small contribution to growth. Service revenue grew less strongly in 2022 than new machinery revenue, but was also significantly higher than in the previous year.

Segment EBITDA (€ million) and EBITDA margin (%)



#### Segment earnings

Core segment profitability benefited in 2022 from the efficiency measures and the high degree of flexibility. As a result, earnings before interest, tax, depreciation and amortisation (EBITDA) in the Filling and Packaging Technology segment increased significantly, despite rising material prices and the challenge of managing with the resource shortages. Segment EBITDA increased by 17.5%, from €283.2 million in the previous year to €332.7 million. It should be noted that EBITDA in 2021 was positively impacted by a total of €17 million in one-off effects on earnings. The EBITDA margin improved to 9.5% in the reporting period (previous year: 9.3%, or 8.7% adjusted for one-off effects on earnings). Krones thus achieved the EBITDA margin of 9% to 10% forecast for the core segment in 2022.

*The core segment generated an EBITDA margin of 9.5% in 2022. Adjusted for one-off effects on earnings, the previous year's figure was 8.7%.*



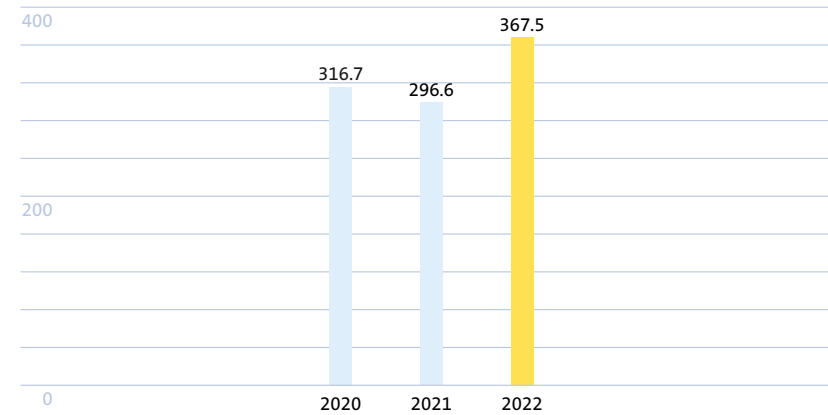
## Filling and Packaging Technology segment





## Process Technology segment

Segment revenue (€ million)

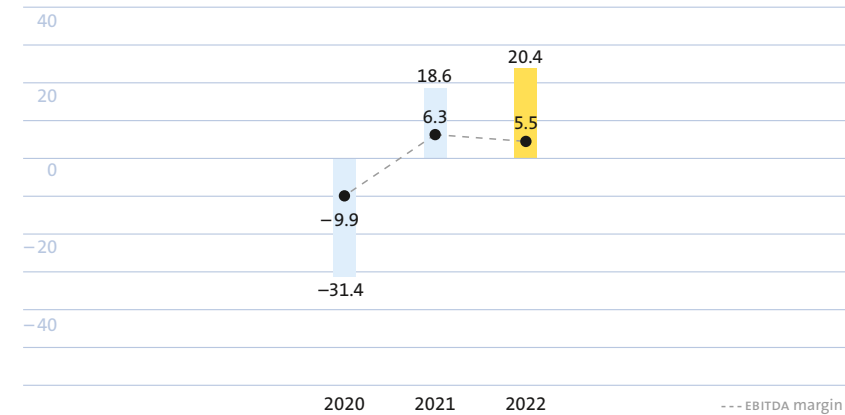


### Segment revenue

*Revenue in Process Technology increased by 23.9% in 2022, at the upper end of the 20% to 25% guidance range.*

In the first three quarters of 2022, business in Process Technology grew at a slightly lower rate than the group total. As forecast, the segment then generated high revenue in the fourth quarter. Fluctuations during the course of the year are not unusual in project-based business. In total, segment revenue increased in 2022 by 23.9% year on year, from €296.6 million to €367.5 million. This is at the upper end of the growth forecast of 20% to 25%. Revenue increased across large parts of the Process Technology product portfolio. The reporting period saw revenue grow both with international breweries and with customers in the non-alcoholic sector. Process Technology's share of consolidated revenue increased in 2022 from 8.2% in the previous year to 8.7%.

Segment EBITDA (€ million) and EBITDA margin (%)



### Segment earnings

The profitability of the Process Technology segment benefited in 2022 from the strategic measures implemented by Krones in 2021. In those measures, we spun off the brewery business into a separate company and streamlined the processes for project-based business. That contributed substantially to the sustained improvement in earnings. Earnings before interest, taxes, depreciation and amortisation (EBITDA) went up from €18.6 million in the previous year to €20.4 million in 2022. This corresponds to an EBITDA margin of 5.5% (previous year: 6.3%). As a result, profitability remained virtually stable in the reporting period and the EBITDA margin was within the 5% to 7% guidance range.

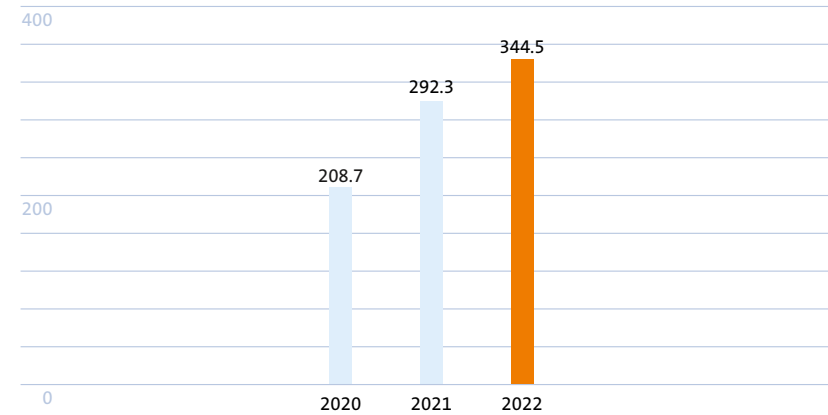
*Krones was able to keep profitability in Process Technology virtually stable in 2022 with an EBITDA margin of 5.5%.*





## Intralogistics segment

Segment revenue (€ million)



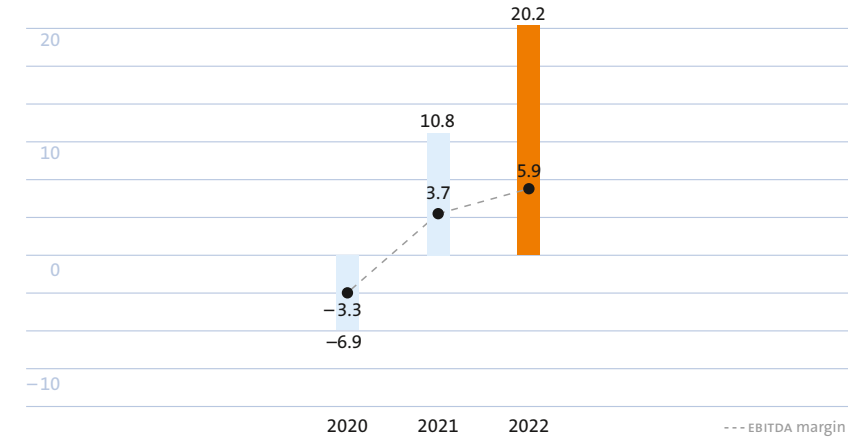
### Segment revenue

*Revenue in the Intralogistics segment climbed by 17.9% to €344.5 million in 2022, exceeding the growth forecast of 13% to 16%.*

Revenue growth was also better than expected in the Intralogistics segment in 2022. From July to December, growth accelerated as forecast. In total, revenue increased by 17.9%, from €292.3 million in the previous year to €344.5 million. The growth forecast for 2022 was 13% to 16%. Kronen benefited in the Intralogistics segment from growing demand for innovative automation solutions. The segment contributed 8.2% of consolidated revenue (previous year: 8.0%).

Revenue growth was also better than expected in the Intralogistics segment in 2022. From July to December, growth accelerated as forecast. In total, revenue increased by 17.9%, from €292.3 million

Segment EBITDA (€ million) and EBITDA margin (%)



### Segment earnings

Profitability in the Intralogistics segment improved significantly in the reporting period. Earnings before interest, taxes, depreciation and amortisation (EBITDA) went up by 87.0% year on year, from €10.8 million to €20.2 million. The EBITDA margin consequently rose from 3.7% in the previous year to 5.9%. The forecast for 2022 was 4% to 6%. The good margin growth partly reflects the stable production capacity utilisation in Intralogistics.

*At 5.9% in 2022, the EBITDA margin in the Intralogistics segment reached the upper end of the 4% to 6% guidance range.*





## Overall assessment of **economic position**

The world economy was influenced in 2022 by the consequences of the Russia-Ukraine conflict. Rising energy prices and sharply rising interest rates due to high inflation meant that the global economy did not grow as strongly as expected.

Krones' markets developed well. This benefited the company as a leading full-service supplier to the international filling and packaging industry. Revenue, order intake and earnings increased significantly in 2022 compared with the previous year and Krones met or even exceeded all financial targets.

Revenue grew by 15.8% year on year in 2022, from €3,634.5 million to €4,209.3 million. Krones thus exceeded the upgraded growth target of 10% to 12% published in October 2022 (original target 5% to 8%).

Order intake likewise reflects the very high customer demand for Krones' products and services in the reporting period, rising by 34.0% year on year from €4,316.2 million to €5,782.8 million. The order backlog also grew strongly. At €3,466.4 million, this was 83.1% higher at the end of 2022 than a year earlier (€1,893.0 million).

Krones' profitability also improved in 2022. Wide-ranging efficiency measures and the company's flexibility contributed significantly here. Earnings before interest, taxes, depreciation and amortisation (EBITDA) increased by 19.4% to €373.3 million (previous year: €312.6 million). The EBITDA margin rose to 8.9% (previous year: 8.6%). Excluding one-off effects, the EBITDA margin in 2021 was 8.1%. As forecast, Krones reached the upper end of the EBITDA margin target of 8% to 9% for 2022. On the bottom line, the company generated consolidated net income of €187.1 million in the reporting period, up 32.3% year on year (previous year: €141.4 million).

Krones generated an exceptionally large free cash flow of €371.0 million in 2022 (previous year: €203.3 million). This was significantly influenced by the high order intake and the resulting advance payments from customers. The working capital to revenue ratio improved to 19.0% (previous year: 24.8%). Lower average working capital combined with the higher earnings before interest and taxes (EBIT) had a positive impact on our third target figure, return on capital employed (ROCE). Krones significantly improved ROCE in 2022 to 14.1% (previous year: 10.0%), thus exceeding the target of 10% to 12%.

Due to the exceptionally large free cash flow, the company's net cash (cash and cash equivalents less bank debt) amounted to €669.5 million at the end of 2022, significantly higher than the previous year's figure (€378.3 million). The equity ratio was 38.3% (previous year: 39.8%). Overall, Krones continues to possess a very robust financial and capital structure.

Krones started the 2023 financial year with an extremely large order backlog. At the same time, various uncertainties mean that the business environment remains challenging for Krones. These include geopolitical risks in Europe and other parts of the world, and also high inflation and interest rates in many countries. Material shortages and problems in global supply chains remain a source of uncertainty.

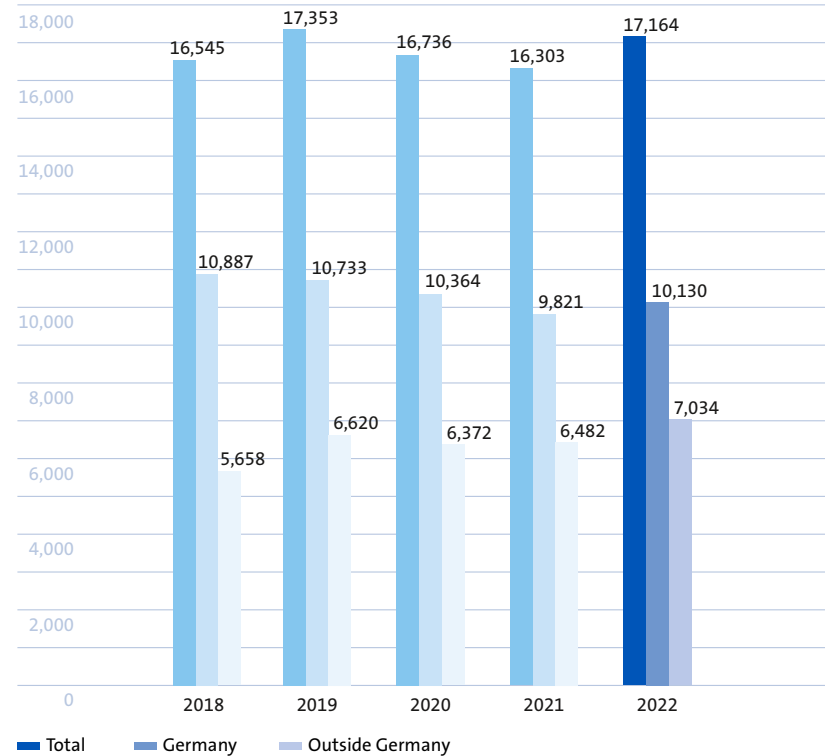
Based on the prevailing macroeconomic outlook and the current expected development of the markets relevant to Krones, the company expects consolidated revenue growth of 8% to 11% in 2023, with an improved EBITDA margin of 9% to 10% and higher ROCE of 15% to 17%.





## Krones Employees

Employees by region



### Krones employs 17,164 people worldwide – 5.3% more than last year

After workforce adjustments in the last few years, Krones' headcount increased in 2022 for the first time since 2019. The total number of employees grew by 861 or 5.3% to 17,164 – a smaller percentage increase than revenue. This growth is mainly due to the recovery of our international markets. The workforce employed outside Germany thus rose by 8.5%, from 552 to 7,034. In Germany, employee numbers grew by less than the total, with an increase of 309 or 3.1% to 10,130. The international share of the workforce rose in the reporting period to 41.0% (previous year: 39.8%).

*After workforce adjustments in the last few years, the number of employees at Krones increased in financial year 2022, rising by 861 to 17,164. This mainly reflects the recovery of our international markets. The international workforce increased to 41.0% of the total (previous year: 39.8%).*

### Above-average workforce growth in emerging markets

Most of the increase in the international workforce was in emerging economies and in service. The number of employees in emerging markets grew in the reporting year by 326 to 4,459. This meant that 26.0% of the Krones team was employed in emerging economies at the end of the reporting period (previous year: 25.4%).



## Employees in the emerging markets 2018–2022

Year	South America	Africa	Asia-Pacific	Eastern Europe	China	Total
2018	637	452	830	507	716	3,142
2019	782	671	1,009	933	792	4,187
2020	778	639	974	922	742	4,055
2021	803	633	959	1,006	732	4,133
2022	871	671	1,023	1,092	802	4,459

*Krones significantly expanded the emerging markets workforce in 2022 by 326 or 7.9% to 4,459 employees. That represents 26.0% (previous year: 25.4%) of the total workforce.*

The company plans to continue its above-average growth in emerging markets, where Krones has for years generated about 50% of consolidated revenue. Expansion of business activities in emerging markets is part of the company's strategy to achieve its medium-term growth targets. Krones will therefore further increase the proportion of the workforce

in emerging markets in the medium to long term. Attracting more employees for our international locations means that we are closer to customers and can serve them faster – a key competitive advantage.

To ensure a highly qualified and motivated team for the long term, Krones continues to invest heavily in training and employee development. Employees are the heart and face of the company and the basis for Krones' long-term success.



## Risk and opportunity report

- Risks identified on an ongoing basis
- Efficient control and management tools limit risks

### Krones' risk management system

*Krones actively addresses potential risks. All key business processes are constantly subject to an internal control and management system.*

Krones is exposed to a variety of risks that are inextricably linked with doing business globally. We continuously monitor all significant business processes to identify risks early and to actively manage and limit them. Within our corporate strategy, we also identify, analyse and unlock opportunities. However, unlike risks, business opportunities are not documented within our risk management system.

Krones has additionally integrated sustainability matters into its risk management system. As part of our sustainability management, we review and assess the impact of existing non-financial environmental, social and governance (ESG) risks on Krones' business and sustainability goals.

In essence, risks are defined as potential negative deviations from our earnings forecast for the 2023 financial year. Opportunities are potential positive deviations from our earnings forecast for the 2023 financial year. Because they have comparable selling and procurement markets, the same risks and opportunities essentially also apply to all three of the Krones Group's operating segments.

Krones' risk management system consists of an internal control system with which we record, analyse and assess all relevant risks. We monitor all material risks and any countermeasures already taken in a detailed, ongoing process that includes planning, information and control.

We assess risks on the basis of the likelihood of an event and its potential financial impact. Earnings before interest and taxes (EBIT) serve as the measure for potential financial impact. Starting with gross risk, we determine the net risk, which takes into account any mitigating actions taken.

Krones presents risks in a three-column table on page 176. This contains the following information: The maximum loss associated with a risk, the likelihood of an event and the financial impact – the latter being the product of the first two factors. Each factor is categorised as either low, medium or high.



The categories are defined as follows:

Maximum loss (€ million)	Likelihood of an event (%)	Potential financial impact* (€ million)
low	1.0 to 10.0	low
medium	10.1 to 50.0	medium
high	> 50.0	high

\*Based on EBIT



## Multi-stage risk management system

We are continually improving our risk management system on the basis of practical experience. The system consists of the following modules: risk analysis, risk monitoring, and risk planning and control.

### Risk analysis

In order to identify risks early, we continuously monitor all business activities. Material project-related risks are reduced or avoided before an order is accepted. We conduct a profitability analysis of all quotes prior to order acceptance. Orders that exceed a specified volume are also subject to a project status report. Apart from profitability, we also individually record and evaluate financing risks, technological risks, regional risks and tax risks as well as scheduling and other contractual risks before accepting an order.

To manage risks that arise from changes in the market and competitive situation, we create detailed market and competition analyses for all segments and business areas on a regular basis.

In addition, we conduct a comprehensive risk inventory annually for Krones AG and all significant group companies. The results of the risk inventory and mitigating actions are used in our annual planning and forecasting. The basic principles and the process are documented in a risk manual. The risk management system serves not only the purpose mandated by law – early detection of going concern risks – but also covers all risks that may have a significant negative impact on earnings.

### Risk monitoring

We use a variety of interlinked controlling processes to monitor risks within the Krones Group. Regular comprehensive reports from the individual business units keep the Executive Board and other decision-makers apprised in a timely manner of all possible risks and deviations from company planning and of the status of mitigating actions. For projects with a high contract value, potential risks are examined and evaluated in regular meetings. Employees who identify risks pass their information on without delay through the company's internal reporting system.

### Risk planning and control

We primarily use the following tools to plan our business activities and control risk within our internal control system:

- Annual planning
- Medium-term planning
- Strategic planning
- Rolling forecasts
- Monthly and quarterly reports
- Capital expenditure planning
- Production planning
- Capacity planning
- Project controlling
- Accounts receivable management
- Exchange rate hedges
- Insurance policies



## Risk management organisation

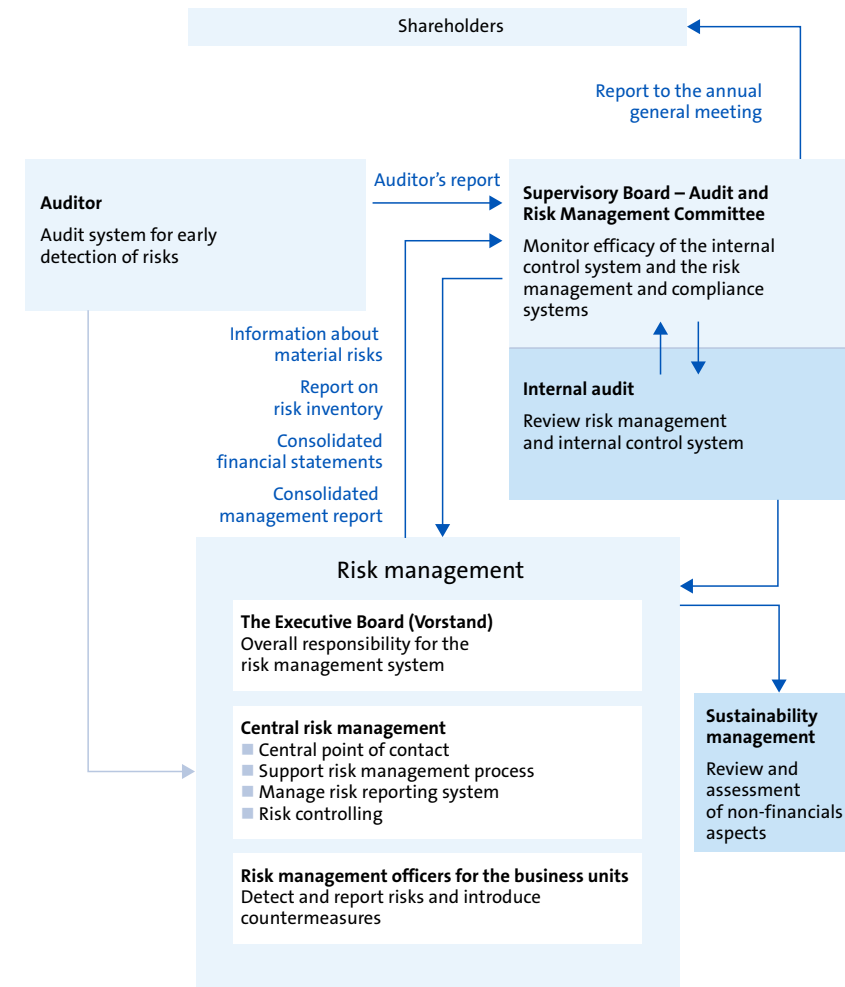
*Krones' risk management system is continuously monitored and reviewed. This is governed by clear areas of responsibility and accountability.*

Risk management at Krones is part of Controlling. The risk management system is reviewed by Internal Audit.

In addition, in accordance with the Financial Market Integrity Strengthening Act (FISG), the Audit Committee has the right to obtain information directly from the managers in charge of control and monitoring tasks.

All relevant information is collated in Controlling, where it is processed and made available in a management tool for the Executive Board. In addition, the various segments and business units also have risk management officers who are responsible for risk management. This includes identifying and reporting risks as well as introducing and implementing measures to actively control them.

### Risk management organisation at Krones





## Key features of the internal control system and the risk management system as relates to accounting and financial reporting

*The aim of the internal control and risk management system is to ensure that all business transactions are correctly recorded, processed, recognised and included in financial reporting.*

Krones has an internal control and risk management system for accounting and financial reporting processes to ensure that all business transactions are always correctly recorded, processed, recognised and included in financial reporting. Krones' internal control and risk management system comprises all principles, methods and measures to ensure that the company's accounting and financial reporting are effective, efficient and proper and in compliance with all relevant regulations and standards.

The Krones Group has a clear management and corporate structure. Cross-cutting key functions are centrally managed.

- The duties of the units that are materially involved in accounting and financial reporting processes are explicitly segregated and responsibilities clearly assigned.
- Regular reviews and audits are conducted within the various units, primarily by Controlling.
- Commercial off-the-shelf software is used for accounting and financial reporting as far as possible.

- Special security precautions protect the software and IT systems used for accounting and financial reporting against unauthorised access.
- Sufficient binding policies (e.g. for payments and travel expenses) are in place and updated on an ongoing basis.
- All of the departments involved in the accounting and financial reporting process work constantly to assure the quality of their work.
- Regular spot checks are used to continuously verify the completeness and accuracy of our accounting data.
- The software used in accounting performs programmed plausibility checks.
- We use dual verification for all accounting-related processes.

### Appropriateness of the internal control and risk management system

The Audit and Risk Management Committee of Krones' Supervisory Board is involved in the accounting and financial reporting process. This Committee monitors the appropriateness and effectiveness of the risk management and internal control systems, as well as Internal Audit, which regularly reviews the risk management and internal control system. The Executive Board, which has overall responsibility for risk management, has no information or knowledge to suggest that the risk management and internal control system is not appropriate or effective.



## Overview and description of material risks

Risk categories	Maximum loss	Likelihood of event	Potential financial impact
<b>General business environment and industry-specific risks</b>			
■ General economic risks	high	medium	medium
■ Industry-specific risks	low	low	low
<b>Financial risks</b>			
■ Default risks	high	low	medium
■ Liquidity risk	low	low	low
■ Interest rate risk	low	low	low
■ Currency risk	high	medium	medium
<b>Operational risks</b>			
■ Price risk	medium	low	low
■ Procurement risks	high	medium	high
■ Cost risk	high	medium	medium
■ Personnel risk	low	low	low
<b>Legal risks</b>	high	low	medium
<b>Environmental and safety risks</b>	medium	low	low
<b>IT risks</b>	high	medium	medium

*Krones classifies the maximum loss, the likelihood of an event and the potential financial impact of material risks into the three risk categories low, medium and*



*high. Definitions are provided below on page 172.*

## General business environment and industry-specific risks

## General economic risks

As a provider of products and services for the food and beverage industries, Krones is less dependent on economic cycles than other machinery manufacturers. However, the company cannot escape the influence of the general economic situation entirely.

There are a number of macroeconomic uncertainties that could cause the global economy to perform worse than forecast in 2023. Notable macroeconomic risks for Krones include the possibility that the more restrictive interest rate policy of central banks could slow the economy in Europe and the USA more than expected. This would negatively impact demand for our products and services and hence Krones' earnings.

There is additionally a risk of a renewed worsening of the Covid-19 pandemic in certain regions. This would negatively impact the whole economy and also our customers' willingness to invest, and hence also Krones' revenue and earnings.

Risk factors for the global economy also include geopolitical tensions. First and foremost among these is the Russia-Ukraine conflict. It is not currently possible to predict how this will continue. There is a risk that the impact of the conflict on the global economy in 2023 will be greater than experts expect, causing the global economy to perform less well than projected. This would also have negative consequences for Krones' business.



The threat of international trade conflicts and the formation of trade blocs also create general economic uncertainty. There is a risk, for example, of the tensions intensifying between China and the USA, both of which are major economic regions. If global economic growth were to be considerably weaker than expected due to trade conflicts, that would negatively impact Krones' revenue and earnings.

Another macroeconomic risk is the development of the Chinese economy. The tight property market there was already a major drag on the economy in 2022. There is a risk that the problems in the property market will continue or that they will even get worse. This could lead to significant payment and credit defaults and place a heavy burden on the credit and financial sector in China. In the worst-case scenario, this could have a ripple effect throughout the financial markets and lead to a global financial crisis. This would have a significant impact on overall economic development and therefore also have a negative impact on Krones' earnings situation.

*Impact of general economic risks: We rate the maximum loss as high, the likelihood of an event as medium and the financial impact as medium.*

#### Industry-specific risks

Krones is exposed to industry-specific risks primarily through the development of the global packaging market and the actions of competitors. The competitive environment could intensify if competitors of Krones attempt to win orders by offering lower prices. We address the resulting risk of loss of market share by further extending our technology leadership. Krones' strong focus on service also sets the company apart from competitors.

There is a fundamental risk of plastic as a packaging material being perceived negatively by the public. Plastic and PET packaging has thus been a subject of in-

creasing debate in recent years, primarily in Europe. Krones generates a large proportion of revenue with products and services connected with this type of packaging.

It cannot be ruled out that the PET debate will intensify and spread to other regions. This could reduce our customers' willingness to invest in plastics technology and thus have a negative impact on Krones' revenue and earnings. Other areas of our business could also come into the focus of social debate. In some regions, for example, there has been criticism of groundwater use by beverage companies. This criticism could additionally have an impact on our customers' investment confidence and hence to a loss of business for Krones.

*Impact of industry-specific risks: We rate the maximum loss as low, the likelihood of an event as low and the financial impact as low.*

#### Financial risks

The financial risks to which Krones is exposed are default risks, liquidity risks, interest rate risks and currency risks. Our description of these risks and suitable actions below is in keeping with the disclosure requirements under IFRS 7 on the reporting of risks relating to financial instruments. Because of regional and customer-related diversification, there is no material concentration of risk.

##### 1. Default risk

Default risk is the maximum potential risk arising from each individual exposure at the reporting date. Any counter-exposures are not taken into account.

##### 1.1 Trade receivables

Credit risk in trade receivables is the risk of economic loss arising from a customer's failure to fulfil contractual payment obligations.





Krones manages credit risk on trade receivables on the basis of internal policies. Most trade receivables are backed by various, sometimes country-specific, forms of security. These include retentions of title, guarantees and documentary credits. In order to prevent credit risk, we also run external credit checks on customers. In addition, there are processes in place for continually monitoring receivables that may be at risk of default. Write-downs on bad debt (non-recoverable trade receivables) are taken on an individual basis. The very low volume of actual defaults, as measured against the total volume of receivables, attests to the effectiveness of the measures taken.

The theoretical maximum credit risk from trade receivables corresponds to the carrying amount.

€ thousand	Carrying amount	of which not overdue at the reporting date	of which overdue by the following number of days at the reporting date			
			up to 90 days	between 90 and 180 days	between 180 and 360 days	more than 360 days
31 Dec 2022 Trade receivables and contract assets	1,574,790	1,438,483	88,496	24,522	21,701	1,588
31 Dec 2021 Trade receivables and contract assets	1,380,271	1,239,730	99,696	23,400	14,298	3,147

### 1.2 Derivative financial instruments

Krones uses derivative financial instruments on the basis of individual contracts solely for risk management purposes. Not using derivative financial instruments would expose the company to greater financial risks.

These instruments essentially cover the risks arising from changes in exchange rates between the euro and the us dollar, the Canadian dollar, the Norwegian krone and the Japanese yen. The material contractual details (amount and term) of underlying and hedge transactions are largely identical. Default risk relating to derivative financial instruments in the event of counterparty default is limited to the balance of the positive fair values. More information on this topic is provided in the notes to the consolidated financial statements.

### 1.3 Other financial assets

The maximum credit risk position arising from other financial assets corresponds to the carrying amount of the instruments. Krones is not exposed to any material default risk arising from its other assets, all of which are current assets.

*Impact of default risks: We rate the maximum loss as high, the likelihood of an event as low and the financial impact as medium.*

### 2. Liquidity risk

Liquidity risk is the risk of a company being unable to sufficiently fulfil its financial obligations.

Krones generates most funding through operating activities. This funding primarily serves to finance working capital and capital expenditure. Krones manages its liquidity by reserving sufficient cash and maintaining credit lines with banks in addition to the regular inflow of payments from operating activities. The company's liquidity management for operations consists of a cash management system that is based on rolling monthly liquidity planning with a planning horizon of one year. This enables Krones to be proactive about any possible liquidity bottlenecks. Apart from cash on hand, Krones' cash and cash equivalents consist primarily of demand deposits.

The following overview of maturities shows how the undiscounted cash flows relating to liabilities as of 31 December 2022 influence the company's liquidity situation.

€ thousand	Carrying amount at 31 Dec 2022	Cash flow for 2023		Cash flow for 2024–2027		Cash flow for 2027 or later	
		Interest	Repayment	Interest	Repayment	Interest	Repayment
Derivative financial instruments	9,926	0	9,320	0	606	0	0
Liabilities to banks	5,000	30	0	52	5,000	0	0
Trade payables	684,189	0	684,189	0	0	0	0
Liabilities from leases	105,929	401	23,846	2,198	61,912	1,107	20,171
Other financial liabilities	155,122	0	126,348	0	28,774	0	0
<b>Total</b>	<b>960,166</b>	<b>431</b>	<b>843,703</b>	<b>2,250</b>	<b>96,292</b>	<b>1,107</b>	<b>20,171</b>

€ thousand	Carrying amount at 31 Dec 2021	Cash flow for 2022		Cash flow for 2023–2026		Cash flow for 2026 or later	
		Interest	Repayment	Interest	Repayment	Interest	Repayment
Derivative financial instruments	7,397	0	7,397	0	0	0	0
Liabilities to banks	5,098	42	0	82	5,098	0	0
Trade payables	515,141	0	515,141	0	0	0	0
Liabilities from leases	97,424	262	29,626	1,736	51,242	1,202	16,556
Other financial liabilities	96,090	0	83,181	0	12,909	0	0
<b>Total</b>	<b>721,150</b>	<b>304</b>	<b>635,345</b>	<b>1,818</b>	<b>69,249</b>	<b>1,202</b>	<b>16,556</b>

*Impact of liquidity risk: We rate the maximum loss as low, the likelihood of an event as low and the financial impact as low.*

### 3. Interest rate risk

Krones is exposed to risk arising from possible fluctuations in market interest rates. As of the 2022 reporting date, Krones made comparatively minor use of bank borrowings relative to its business volume.

*Impact of interest rate risk: We rate the maximum loss as low, the likelihood of an event as low and the financial impact as low.*

### 4. Currency risk

Because exports to countries outside the eurozone make up a significant portion of total revenue, we are exposed in principle to currency risk. We use exchange rate hedges to counter such risk as far as possible. In addition, we make most purchasing and sales transactions in euros or the relevant functional currency.

#### Currency sensitivity analysis

A change in the reporting date closing rate by +10% in relation to the foreign currency against the euro (indirect quotation) would have the following effect on consolidated net income and other equity components:

31 Dec 2022 € thousand	Currency USD	Currency CAD	Currency CNY	Currency GBP
Consolidated statement of profit and loss	15,134	–9	118	629
Consolidated equity	21,011	1,480	4,386	10

31 Dec 2021 € thousand	Currency USD	Currency CAD	Currency CNY	Currency GBP
Consolidated statement of profit and loss	4,955	304	–309	244
Consolidated equity	10,941	787	2,067	206

*Impact of currency risk: We rate the maximum loss as high, the likelihood of an event as medium and the financial impact as medium.*



## Operational risks

### 1. Price risk

Krones operates in a highly competitive market in which some orders are generated by way of prices that do not cover costs. Fixed-price contracts with customers also entail price risks.

Krones must generally bear any additional costs that arise. In order to minimise this risk, Krones has introduced a project status report. Any enquiry or order equal to or greater than a specific amount is assessed on the basis of financial, technical/technological, tax, legal and regional risks.

The very high order backlog as of 31 December 2022 provides a good basis for Krones to utilise its production capacities evenly in 2023. The comfortable order cushion strengthens Krones' ability to continue implementing its pricing strategy and thus has a positive effect on price risk.

*Impact of price risk: We rate the maximum loss as medium, the likelihood of an event as low and the financial impact as low.*

### 2. Procurement risks

Global supply chains and procurement markets remained tight in 2022. This led to rising prices and temporary material bottlenecks in production at Krones. These mainly involved electronic components. We expect the overall situation in the procurement markets to ease slightly in 2023 and the availability of electronic components to improve from the third quarter. However, procuring enough materials and supplier parts on time remains a major challenge in 2023.

Krones is generally exposed to market price risk relating to its procurement of parts and raw materials for operations. Geopolitical and macroeconomic developments are the primary factors influencing raw material prices. There is a risk that raw material prices will develop to our disadvantage. The company mitigates this risk through targeted procurement management and supply contracts that reduce material commodity price risks. We have factored further price increases into our earnings forecast for 2023. If material procurement costs rise by more than expected, then earnings could be lower than forecast.

We also face risks relating to products, deadlines and quality with regard to suppliers. A specially designed process for supplier selection, monitoring and management helps minimise these risks. Should there nevertheless be temporary supply problems, there would be a risk of production stoppages, which could have a negative impact on Krones' revenue and earnings.

There is also a risk of supply stoppages if suppliers experience gas or energy shortages. To reduce such risks, Krones constantly monitors and analyses the general supply situation.

*Impact of procurement risks: We rate the maximum loss as high, the likelihood of an event as medium and the financial impact as high.*

### 3. Cost risk

Our earnings forecast is based on the assumption that we will achieve cost reductions in 2023 as a result of structural measures such as the expansion of our global footprint in production and procurement. We seek to optimise cost structures along the entire value chain. Krones is exposed to the risk



that these cost savings will be smaller than expected. We mitigate this risk by continually monitoring the projects underway across the company.

In addition, potential risks to projects in progress due to internal or external factors are tracked during project execution and countermeasures taken without delay.

*Impact of cost risk: We rate the maximum loss as high, the likelihood of an event as medium and the financial impact as medium.*

#### 4. Personnel risk

As well as in its established businesses, Krones intends to grow more rapidly in particular on the services and digital side. For that purpose, we need highly qualified employees in Germany and abroad. There is a risk that the company will not find enough suitable employees. We will ensure early access to qualified employees through ongoing cooperation with colleges and universities. We regularly employ students pursuing their bachelor's and master's degrees. We also use professional HR consultants. In addition, we continuously improve the qualification level of our workforce with extensive further training and professional development measures.

*Impact of personnel risk: We rate the maximum loss as low, the likelihood of an event as low, and the financial impact as low.*

#### Legal risks

Krones is exposed to risks arising from operating activities in connection with possible legal disputes. Krones addresses legal risks with its rules of conduct, codes and an internal compliance structure. In addition, the company has taken out insurance policies that are customary for our sector.

*Impact of legal risks: We rate the maximum loss as high, the likelihood of an event as low and the financial impact as medium.*

#### Environmental and safety risks

As a manufacturing company, Krones is exposed to risks relating to the environment and safety that could lead to possible harm to individuals, property or the company's reputation. Any harm caused by technical or human error in production can have a direct impact on our financial position. Such an event and any resulting fines, claims for damages or harm to our reputation can also have an indirect financial impact. Krones mitigates environmental and safety risks with high technical standards in production, training, rules of conduct and insurance policies customary in our industry.

*Impact of environmental and safety risks: We rate the maximum loss as medium, the likelihood of an event as low and the financial impact as low.*

#### IT risks

All of Krones' material business processes are based on functioning IT systems. The risks here are failure or malfunction of or unauthorised access to critical systems. Such events could result in production stoppages and the loss or misuse of important confidential data.

In general, more and more companies are becoming targets of computer crime, and there are serious cybersecurity risks. Computer crime is frequently based on professional international structures, which makes averting and combating it a major challenge. Krones uses internationally recognised IT security measures to protect against risks relating to cyber-crime and other IT risks. We have redundant IT systems in place for critical business processes.

*Impact of IT risks: We rate the maximum loss as high, the likelihood of an event as medium and the financial impact as medium.*



## Overview and description of material opportunities

### Material opportunities

Krones does not record business opportunities within the risk management system. For this reason, we do not report on the likelihood of an event or the possible financial impact in relation to opportunities. We describe opportunities in general below.

#### General economic opportunities

General economic opportunities for Krones arise in particular if the global economy performs better in 2023 than has been predicted, for example, by the experts at the International Monetary Fund. We have a strong global footprint and may also benefit if the economy in individual world regions performs better than anticipated. In particular, Krones has considerably strengthened its market position in recent years in the emerging markets in the Asia-Pacific region and in Africa and the Middle East. Additional opportunities would therefore arise for us if the emerging market economies were to grow faster than expected. For the euro area and the US in particular, the experts at the International Monetary Fund project only modest economic growth in 2023. Europe and the US are large and important markets for Krones. If the growth momentum is stronger than expected in these regions, Krones would consequently benefit. In addition, a swift end to the Russia-Ukraine conflict could have positive effects on the global economy and hence also on Krones' business.

### Industry-specific opportunities

Beverage and food producers increasingly focus on conserving energy and other resources. There is a chance of this trend intensifying and customers being more willing to accept higher prices. That would open additional selling and revenue opportunities for Krones due to the company's competitive advantages in this area. With enviro, our certified management system, we have established the basis for ensuring that Krones machines and lines have especially low energy and media consumption. The company has also developed a competitive advantage here.

Digitalisation also presents considerable additional sales and revenue opportunities for Krones. Customers expect Krones' smart machines and lines to reduce their operating and labour costs. Krones already has many market-ready products and services in the "digital beverage plant" portfolio and intends to further extend its position in the growth field of digitalisation.

#### Opportunities arising from acquisitions

Krones strengthened its position in the field of pharmaceutical packaging during the reporting period by acquiring a majority stake in the US company R+D Custom Automation. Acquisitions continue to be a strategic focus for Krones. We are primarily interested in mid-sized companies that strengthen our existing portfolio technologically and regionally, or that expand the range of products and services. A solid financial position and capital structure enable Krones to seize opportunities for external growth. Acquisitions are not included in our earnings forecasts for 2023. External growth could open up opportunities for Krones.



## Operational opportunities

### 1. Selling prices

After a price increase in the 2021 financial year, Krones further increased the prices of all machinery in Filling and Packaging Technology and Process Technology in 2022. Due to the sometimes long delivery lead times, these price increases will have a growing positive impact on earnings in 2023 as time goes on. Price increases remain a strategic focus for Krones. Overall, there is a possibility that higher selling prices will have a faster and stronger impact on Krones' earnings in 2023 than forecast.

### 2. Procurement prices

Increasingly, the company buys standardised parts and complete assemblies from suppliers. In addition, Krones procures more and more materials locally at the company's locations worldwide and in best-cost countries. The opportunity exists that, overall, we might save more in this way than forecast and thus offset the expected price increases to a greater extent than expected. Additional opportunities will also arise if raw material and other material prices develop more favourably than forecast.

### 3. Costs

Krones has optimised its cost structure by adopting a range of strategic measures. We have factored in further cost savings in the targeted earnings improvement in 2023. Opportunities arise for Krones if cost savings are larger than planned.

## Risks from the Russia-Ukraine conflict

The Russia-Ukraine conflict continues to be a major uncertainty factor. Even one year after it began, it is still unclear how the conflict will develop and how long it will go on for. In addition to macroeconomic risks, Krones may also be exposed to other risks as a result of the Russia-Ukraine conflict.

Krones considers the direct sales risks in connection with the conflict to be low. Before the outbreak of the conflict, Krones generated only 1% to 1.5% of its business volume in Russia and Ukraine. Krones discontinued new business in Russia in 2022, as a result of which the proportion of consolidated revenue fell in the reporting period. Overall, the remaining business in the two countries has a very minor impact on the revenue and earnings forecasts for 2023.

Settlement and payment default risk has been reassessed for outstanding orders with customers in the two countries. This risk was calculated on the assumption of a general risk of default by a number of customers due to the imposed economic sanctions. The resulting risk is calculated at an amount in the low single-digit millions of euros.

Supply chains in the conflict-affected areas could be interrupted or suppliers from the affected areas could fail. As Krones procures virtually no materials or products from suppliers in those regions, the direct impact on procurement risk is considered to be very low.

Krones AG is the shareholder of Krones Ukraine LLC, Kyiv, and Krones o.o.o., Moscow. Krones does not see any material risk in the assessment of the recoverability of the assets in these companies, which account for approximately 0.5% of total consolidated assets.



## Summary of risks and opportunities

Viewed from today's perspective, Krones is not exposed to any risks that threaten the company's continued existence.

The company had a very high order backlog as of 31 December 2022. This increases planning certainty and has a positive overall effect on the risk situation. Compared with the previous year, our assessment of the risks and opportunities has essentially changed as follows: The financial impact of general economic and price risks has decreased and that of currency risk has increased.

The main risks remain in the general business environment and in industry-specific risks, financial risks and procurement risks.

In addition, there is risk arising from the Russia-Ukraine conflict. Krones has assessed the conflict's potential impact on the Group. Based on this assessment, Krones has not identified any uncertainties that would cast doubt on the ability of the Krones Group to continue as a going concern.



## Events after the reporting period

There were no material events after the reporting period.





## Report on **expected developments**

- Moderate growth in global economy forecast for 2023
- Kronos expects further revenue growth in the current year
- Profitability to further increase in 2023

### Global economy expected to grow 2.9% in 2023

*The ongoing Russia-Ukraine conflict and high inflation will continue to burden global economic growth in 2023. According to the IMF, the euro area economy will remain weak (with growth of 0.7%), while China is expected to grow strongly (by 5.2%) in 2023.*

In January 2023, the International Monetary Fund (IMF) forecast global economic growth of 2.9% for 2023. This means that the recovery will continue to lose momentum compared with 2022 (growth of 3.4%). The Russia-Ukraine conflict and interest rate hikes to combat high inflation remain negative factors for the current year. However, the experts' forecast has improved slightly compared to October 2022

(growth of 2.7%). Their slightly more upbeat view now is based on stable private consumption in industrialised countries and a slight easing of supply and material shortages. China's growth prospects have also improved following the lifting of the country's strict Covid policy at the end of 2022.

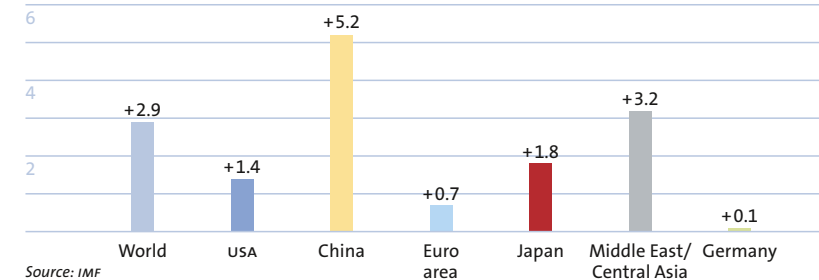
The IMF economists see downside risks to the growth forecast among other things in an escalation of the Russia-Ukraine conflict and persistently high inflation. This would force central banks to raise interest rates, triggering financial market upheavals and negative repercussions for the global economy. In addition, as far as China is concerned, the continuation of the Covid pandemic and problems in the financial sector could slow down the expected growth trend and cause the Chinese economy to lose power as a growth engine.

For the **industrialised countries**, the IMF expects GDP growth to fall sharply, from 2.7% last year to 1.2% in 2023. With Europe hit hard by the Russia-Ukraine conflict, the IMF forecasts growth of just 0.7% for the euro area. Germany will lag

behind with growth of just 0.1%. The IMF expects the US economy to grow by 1.4% in 2023. Thanks to continued low interest rates and a weak yen, Japan is likely to be one of the fastest-growing industrialised economies in 2023. The IMF's forecast is for growth of 1.8%.

According to IMF estimates, growth in the **emerging and developing countries** will improve slightly to 4.0% in 2023 (2022: 3.9%). The main drivers are India and China. For the Chinese economy, the IMF forecasts above-average GDP growth of 5.2% in 2023, following a very weak previous year (2022: 3.0% growth). The key factor behind the upturn in growth is the significant easing of Covid policies and the resulting avoidance of large-scale lockdowns and production stoppages.

Percentage GDP growth in 2023 (forecast)

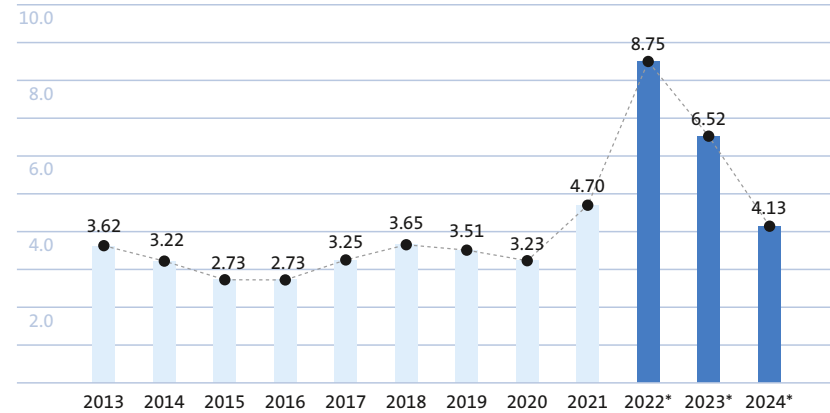


As in the previous year, India is expected to record the strongest growth among the emerging markets, with an increase of 6.1%. The IMF expects less dynamic growth in the Middle East/Central Asia region. There, the experts expect GDP to grow by only 3.2% (2022: 5.3%), with growth slowing significantly due to the lower oil price, especially in Saudi Arabia. In Latin America, the economy is expected to grow by just 1.8% in 2023.



## Krones' customers benefiting from stable consumption

Global inflation rate 2013 to 2021 and forecast to 2024, in %



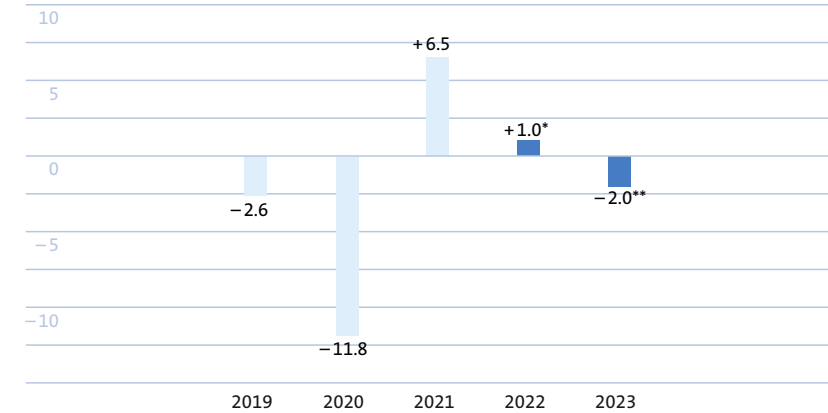
\* Forecast

Source: Statista 2023

Consumer spending is a key determinant of Krones customers' propensity to invest, and thus of demand for beverage filling and packaging machinery. Low unemployment and moderate inflation rates have a positive effect on consumer purchasing power. They thus support demand for packaged food and beverages and indirectly influence demand for our company's products and services. With low unemployment continuing and inflation back down compared to 2022, we expect overall consumer and customer demand to be stable in 2023, especially given that consumer spending has been a growth driver in many countries, even in the difficult year of 2022. According to Global Data figures, global consumption of packaged beverages, which is important to our customers, is expected to grow by 3.8% in 2023.

## Positive outlook for the machinery sector

Year-on-year change in German mechanical engineering output, in %



\* Estimate \*\*Forecast

Source: Germany's Federal Statistical Office, vDMA

The German Mechanical Engineering Industry Association (VDMA) expects that high inflation, the Russia-Ukraine conflict, material shortages and supply chain problems will continue to impact the industry.

*The German Mechanical Engineering Industry Association (VDMA) expects rising sales of food processing and packaging machinery in 2023.*

However, the machinery sector coped well with these challenges in 2022, with output growth estimated at 1%. The VDMA is therefore cautiously optimistic for 2023 and expects the value of machinery and equipment produced this year to fall by only 2% compared with last year – a moderate shortfall compared with past crises. It should be noted here that the various subsectors of the industry are developing at very different rates. For the food processing and packaging machinery subsector relevant to Krones, the VDMA expects growth in 2023.



## Good overall prospects for positive business performance in 2023

Krones is optimistic overall going into the 2023 financial year. The reason for this is sustained high demand for Krones' products and services – despite only slow economic growth.

There are still risks for the global economy and thus also for Krones' business performance. 2023 will be characterised by relatively high inflation and interest rates and by economic and political uncertainties. For example, it is difficult to predict how the Russia-Ukraine conflict will develop and what impact it will have on the global economy. If these risks do not have a greater impact on the economy than is currently expected, there should be no negative effect on Krones' order intake from customers, and investment confidence in the beverage industry will remain at a good level. However, Krones' order intake in 2023 will be below the very high level of last year, which was partly influenced by catch-up effects.

Overall, we therefore expect the global market for filling and packaging equipment, along with selling prices, to develop positively in 2023. Demand on the markets overall will nevertheless return to normal compared with the extremely good year in 2022. Competition in our markets and cost pressures will again remain strong this year.

The medium and long-term outlook remains positive. Consumer demand for packaged beverages and liquid foods is growing steadily, driven by a number of megatrends such as the growing world population. The focus on sustainability and digitalisation is likewise driving demand for innovative beverage filling and packaging machinery.

Because they share comparable sales and procurement markets, the economic, sectoral and company-specific outlook essentially applies to all three segments of the Krones Group.

## All segments to grow with increasing profitability in 2023

This year, in addition to the price increases, Krones will continue to implement the measures already initiated to optimise cost structures and enhance efficiency in all three segments. That is essential in order to counter rising material and labour costs throughout the group.

In addition, we aim to exploit growth opportunities in our market throughout the group with innovations and future-ready products and services. Our focus here is on the areas of sustainability, digitalisation and system solutions. Acquisitions are an option in all segments to complement our technological and regional strengths and enhance our customer focus.

This year, too, Krones will keep sales prices in line with the market and adhere strictly to the established pricing strategy. The goal is to increase profitability in all segments, supported by higher revenue.

## Filling and Packaging Technology segment

	Guidance for 2023	2022 actual	Revised guidance for 2022**	Guidance for 2022*
Revenue growth	7–9%	14.8%	8–10%	5–7%
EBITDA margin	9–11%	9.5%	9–10%	9–10%

\* From the report on expected developments in the 2021 management report

\*\* From the report on expected developments in the quarterly statement for the period 1 January to 30 September 2022

In the core segment, **Filling and Packaging Technology**, Krones will continue to streamline internal structures and processes while at the same time expanding its global footprint. On the one hand, it will expand production in Hungary and China together with the related supply chains. On the other, we will strengthen our global service network by selective recruitment from the relevant regions. Our service business will also benefit this year from the increasing use of digital solutions.

The strong trend among our customers towards sustainable production with lower carbon emissions will also support growth. Krones is ideally positioned here with its resource-saving enviro products and sustainable PET solutions, including PET recycling. In addition, Krones will make use of its line expertise to consolidate and expand its market position with regard to efficient, reliable, high-performance filling and packaging lines for all three container types, including in aseptics.

For the core segment in 2023, Krones expects 7% to 9% revenue growth. The EBITDA margin is expected to be around 9% to 11%.

## Process Technology segment

	Guidance for 2023	2022 actual	Revised guidance for 2022**	Guidance for 2022*
Revenue growth	15–20%	23.9%	20–25%	10–15%
EBITDA margin	6–7%	5.5%	5–7%	5–7%

\* From the report on expected developments in the 2021 management report

\*\* From the report on expected developments in the quarterly statement for the period 1 January to 30 September 2022

In addition to the brewery and soft drinks sectors, the **Process Technology** segment is focusing on further developing new markets, such as energy-efficient solutions for beverage production and technologies for the production of alternative proteins. Expansion of the after-sales and components business is expected to make an additional contribution to growth and earnings.

*In 2023, the Process Technology segment is expected to increase revenue by between 15% and 20% year on year and earn an EBITDA margin of 6% to 7%.*

In this segment as elsewhere, Krones is benefiting substantially from the trend among our customers towards sustainable and economical production. Krones is well positioned here with its energy-efficient solutions for beverage production and handling.

We will further optimise cost structures in Process Technology by further streamlining and digitalising processes and structures, and by better interconnecting our global units.

Overall, Krones forecasts revenue growth of 15% to 20% for the Process Technology segment in 2023, with an EBITDA margin of around 6% to 7%.



## Intralogistics segment

	Guidance for 2023	2022 actual	Revised guidance for 2022**	Guidance for 2022*
Revenue growth	10–15%	17.9%	13–16%	8–13%
EBITDA margin	6–7%	5.9%	4–6%	4–6%

\* From the report on expected developments in the 2021 management report

\*\* From the report on expected developments in the quarterly statement for the period 1 January to 30 September 2022

**Intralogistics** is also benefiting from the sustainability megatrend. More and more, customers demand automation solutions and products that reduce labour and thus increase employee safety. Regionally, Intralogistics mainly plans to expand its presence in the dynamically growing Asian market. A shift in the product mix towards automated picking systems and autonomous mobile robots is also expected to improve the segment's profitability.

For 2023, Krones plans to achieve above-average growth in Intralogistics, with a further improvement in profitability. Revenue is expected to grow by 10% to 15%, with an EBITDA margin of 6% to 7%.

### Krones aims to further increase revenue, the EBITDA margin and ROCE for the group in 2023

*Krones aims to further increase the three financial key performance indicators revenue, EBITDA margin and ROCE in 2023.*

Krones started the 2023 financial year with an extremely large order backlog. At the same time, various uncertainties mean that the business environment remains challenging for Krones. These include geopolitical

risks in Europe and other parts of the world, and also high inflation and interest rates in many countries. Material shortages and problems in global supply chains remain a source of uncertainty. However, we expect that the situation on the procurement markets relevant to Krones may ease slightly in the second half of 2023.

Based on the prevailing macroeconomic outlook and the current expected development of the markets relevant to Krones, the company expects consolidated revenue growth of 8% to 11% in 2023.

With increasing revenue and continued implementation of the cost optimisation measures, Krones aims to improve profitability again this year compared to 2022. Thanks to the company's innovative solutions and good project work with customers, Krones succeeded in implementing price increases in 2022. The higher prices will enable the company to offset future cost increases. For 2023, the company is forecasting an EBITDA margin of 9% to 10% at group level.

For the third performance target, return on capital employed (ROCE), Krones expects an increase this year to between 15% and 17%.

## Krones Group

	Guidance for 2023	2022 actual	Revised guidance for 2022**	Guidance for 2022*
Revenue growth	8–11%	15.8%	10–12%	5–8%
EBITDA margin	9–10%	8.9%	8–9%	8–9%
ROCE	15–17%	14.1%	10–12%	10–12%

\* From the report on expected developments in the 2021 management report

\*\* As per ad-hoc disclosure of 19 October 2022



## Takeover-related disclosures (report pursuant to Sections 315a and 289a of the German Commercial Code (HGB))

Pursuant to Section 4 (1) of the articles of association, the subscribed capital (share capital) of Kronen Aktiengesellschaft as of 31 December 2022 amounted to €40,000,000.00 and was divided into 31,593,072 ordinary bearer shares each representing a notional €1.27 of share capital. With the exception of treasury shares, from which the Company has no rights, all shares carry the same rights and obligations. Kronen held no treasury shares as of 31 December 2022. Shareholders' rights and obligations arising from shares follow from statutory provisions of the Stock Corporation Act (AktG), primarily Sections 12, 53a et seq., 118 et seq., 133 et seq. and 186 AktG.

Under Section 20 (1) of the articles of association, each share entitles its holder to one vote in the annual general meeting. The Company has no voting rights from treasury shares.

Pursuant to Section 18 (1) of the articles of association, only those shareholders who register with the company in text form in German or English and provide proof of their shareholding prior to the annual general meeting are entitled to participate and vote in the annual general meeting. Under Section 67c (3) AktG, proof of the shareholder's shareholding in text form provided by the last intermediary is sufficient as proof and may also be communicated to the company directly by the last intermediary. The proof of shareholding must relate to the start of the twenty-first calendar day prior to the annual general meeting.

Restrictions on the voting rights attached to shares may also result from provisions of the Stock Corporation Act, such as under Section 136 AktG. Infringements of notification obligations within the meaning of sections 33 (1), 38 (1) and 39 (1) of the German Securities Trading Act (WpHG) may lead to a situation where, under section 44 WpHG, rights attached to shares, including voting rights, are at least temporarily suspended.

To the knowledge of the Executive Board, the following agreement exists, or existed in the 2022 financial year, that may be considered a restriction within the meaning of Section 289a sentence 1 no. 2 and Section 315a sentence 1 no. 2 HGB: Mr. Harald Kronseder, Mr. Gunther Kronseder, Harald Kronseder Holding GmbH, Neutraubling, Beteiligungsgesellschaft Kronseder mbH, Neutraubling, VMAX Familienstiftung, Neutraubling, Ms. Nora Diepold (née Kronseder) and Mr. Leopold Kronseder are parties to a pool agreement. The members of the pool agreement have established a civil-law partnership ("Familie Kronseder Konsortium"), the purpose of which is to ensure, by means of uniform decision-making by the shareholders and uniform exercise of voting rights in general meetings of Kronen Aktiengesellschaft and by restricting the ability for the shares in Kronen Aktiengesellschaft bound in the pool agreement to be sold at will, (a) the influence of the shareholders (and in particular the influence of the Kronseder family) and their legal successors, (b) the continuation of Kronen Aktiengesellschaft in a scope comparable to the overall business situation at the time of signing the pool agreement (comparable revenue, comparable order volume, comparable operating assets, comparable size of workforce) and (c) that the company retains the character of a family-owned company.

The Executive Board of the company is not aware of any other restrictions relating to voting rights or the transfer of shares.

The company is aware of the following direct and indirect shareholdings in the company's capital that exceed 10% of the voting rights: Leopold Kronseder (indirect), Nora Diepold (née Kronseder) (indirect), Gunther Kronseder (indirect), VMAX Familienstiftung, Neutraubling (direct and indirect), Harald Kronseder (direct and indirect), Harald Kronseder Holding GmbH, Neutraubling (indirect), Beteiligungsgesellschaft Kronseder mbH, Neutraubling (direct and indirect), Dr. Volker Kronseder (indirect).



To the company's knowledge, the members of Familie Kronseder Konsortium jointly hold the following interest in the share capital:

	Total share of voting rights
Familie Kronseder Konsortium	52.2%

Changes to the shareholdings listed above that are not required to be reported to the company may have occurred since the specified date (31 December 2022). Because the company's shares are bearer shares, the company is generally only aware of changes in shareholdings if the changes are subject to reporting requirements.

The company has not issued any shares with special rights conferring powers of control. There is no employee share scheme where the control rights are not exercised directly by the employees.

The appointment and dismissal of Executive Board members is governed by Sections 84 and 85 AktG and by Section 31 of the Codetermination Act (MitbestG). Pursuant to Section 6 (1) of the articles of association, the Executive Board consists of at least two members. Pursuant to Section 6 (2) of the articles of association, determination of the number of Executive Board members, the appointment of regular and deputy members of the Executive Board, the execution of their employment contracts and revocation of appointments are the responsibility of the Supervisory Board.

Such amendments are to be adopted by resolution of the annual general meeting (Section 119 (1) No. 6 and Section 179 (1) AktG). Unless mandatory provisions of law stipulate otherwise, resolutions of the annual general meeting are made with a simple majority of votes cast or, in cases in which the law prescribes a majority of shares in addition to a majority of votes, with a simple majority of the share capital represented in the vote. Accordingly, in derogation from Sec-

tion 179 (2) sentence 1 AktG, resolutions of the annual general meeting amending the articles of association also require, in addition to a simple majority of votes, a majority of the share capital represented in the vote, unless a larger majority is prescribed by law. The Supervisory Board is authorised to make amendments that affect only the wording of the articles of association (Section 179 (1) sentence 2 AktG in conjunction with Section 13 of the articles of association). In addition, the Supervisory Board is authorised by resolution of the annual general meeting of 17 May 2021 to amend the articles of association in accordance with any utilisation of Authorised Capital 2021 and upon expiry of the term of the authorisation for the utilisation of Authorised Capital 2021.

By resolution of the annual general meeting of 17 May 2021, the Executive Board is authorised to increase the company's share capital, with the approval of the Supervisory Board, by up to €10 million (Authorised Capital 2021) through the issuance on one or more occasions of new ordinary bearer shares against cash contributions up to and including 16 May 2026. Shareholders must normally be granted subscription rights to these shares. The Executive Board is authorised to exclude shareholders' subscription rights, with the approval of the Supervisory Board, for any fractional amounts that may arise. Moreover, the Executive Board is authorised to determine the further details of the capital increase and its implementation, in both cases with the approval of the Supervisory Board.

The Executive Board is authorised to repurchase treasury shares and to sell repurchased shares in the cases stipulated on by law in Section 71 AktG. By resolution of the annual general meeting of 13 June 2018, the Executive Board is authorised, with the approval of the Supervisory Board, up to and including 12 June 2023, subject to compliance with the principle of equal treatment (Section 53a AktG), to buy treasury shares totalling up to 10% of the company's share capital at the time that the resolution was adopted or, if smaller, at the time that the authorisation is exercised. The amount of shares purchased



under this authorisation, together with other treasury shares that the company has already acquired or still holds or shares that are attributable to the company under Sections 71d and 71e AktG, may at no time exceed 10% of the company's share capital at the time. The authorisation may be exercised once or multiple times, either in whole or in part, in pursuit of one or multiple purposes, by the company, by group companies or by a third party acting on the company's behalf or on behalf of group companies. The authorisation may not be used for the purpose of trading in the company's shares.

The purchase of treasury shares may be carried out, at the discretion of the Executive Board, through a stock exchange or through a public tender offer addressed to all of the company's shareholders or through a public request to the shareholders to tender shares for sale.

By resolution of the annual general meeting of 13 June 2018, the Executive Board is authorised to use any treasury shares bought pursuant to the aforementioned authorisation in accordance with Section 71 (1) No. 8 AktG, besides for sale on the stock exchange or by offer to all shareholders, for any permissible purpose, and in particular as follows:

- 1) The shares may be cancelled and the share capital reduced by the proportion of the share capital accounted for by the cancelled shares, without the cancellation or its execution requiring a further resolution by the annual general meeting.
- 2) They may be offered and transferred to third parties in return for non-cash contributions.
- 3) The shares may be sold to third parties against cash payment if the price at which the shares in the company are sold is not significantly lower, within the meaning of sections 71 (1) no. 8 sentence 5 and 186 (3) sentence 4 AktG, than the stock exchange price of a company share at the time of sale.

- 4) The shares may be used to service obligations or rights to purchase shares in the company arising from and in connection with convertible bonds or bonds with warrants, or profit-sharing rights with conversion rights or warrants, issued by the company or any of its group companies.

The authorisations for the Executive Board to sell and otherwise use purchased shares may be exercised once or multiple times, individually or in combination, on the whole volume or on partial volumes of the acquired shares. The above authorisations may also be exercised by dependent companies or companies that are majority-owned by the company or by third parties on behalf of the company or its dependent or majority-owned companies.

Shareholders' statutory subscription rights to such shares are excluded to the extent that the shares are used in exercise of the authorisations set out above under 2) to 4) inclusive or, in the case of sales of treasury shares to all shareholders, to the extent necessary to avoid fractional amounts.

Further details can be found in the authorising resolution, the full wording of which is reproduced in agenda item 9 in the notice convening the annual general meeting of Kronen Aktiengesellschaft on 13 June 2018 published in the Federal Gazette on 19 April 2018.

Kronen Aktiengesellschaft has not made any material agreements containing special provisions relating to a change or acquisition of control following a takeover offer.

The company has not made any agreements with members of the Executive Board or company employees relating to compensation in the event of a takeover offer.





## Dependency report

Pursuant to Section 17 of the German Stock Corporation Act (AktG), Familie Kronseder Konsortium GbR, Neutraubling, has a controlling influence over Krones AG. Thus, in keeping with Section 312 AktG, the Executive Board has prepared a report which contains the following final declaration:

Krones AG did not carry out any legal transactions with third parties at the instigation or in the interests of the shareholders of Familie Kronseder Konsortium GbR or their affiliates. Measures requiring reporting within the meaning of Section 312 AktG were neither taken nor omitted.

For every transaction made between Krones AG and the owners of Familie Kronseder Konsortium GbR and affiliated companies in the reporting period, Krones AG made arrangements for appropriate consideration within the meaning of Section 312 AktG and – to the extent that it was to be fulfilled in the reporting period – also received appropriate consideration.



*The statement on corporate governance is also available online  
at <https://www.krones.com/en/company/investor-relations/corporate-governance-statement.php>*



Neutraubling, 15 March 2023  
Krones AG

The Executive Board

Christoph Klenk  
CEO

Uta Anders  
CFO

Thomas Ricker  
CSO

Markus Tischer

Ralf Goldbrunner