



# Annual General Meeting

May 27, 2022

**KHD Humboldt Wedag  
International AG**

Shen, CEO | Luckas, CFO | Xing, EVP |  
Dr. Jochem, COO | Mersmann, CTO



# Address from KHD's Chief Financial Officer (1)

- The 2021 financial year saw increasing tendering activity. Thanks to our good customer loyalty and convincing solution concepts, KHD was able to achieve well above-average growth in order intake:
  - In Capex orders (€ 178.5 million), KHD achieved well over double the previous year's figure.
  - For Plant Services (€ 53.1 million), we are 97% above the previous year.
- All key performance indicators from internal planning were exceeded!
- KHD's potential – sustainable positive results that also satisfy our shareholders – is becoming increasingly visible.
- KHD achieved positive earnings before taxes (EBT) for the first time since the 2014 financial year! ... and we want and can do even more!



# Address from KHD's Chief Financial Officer (2)

- Increasing our performance as well as competitiveness continues to enjoy top priority at KHD.
- We are sticking to our strategy: Orders where KHD can offer customers real added value take precedence over purely volume-driven growth.
- Our "Go China" initiative remains a key component of our strategy. However, travel restrictions relating to China have significantly hampered implementation.
- Climate neutrality is becoming increasingly important for cement producers. KHD will make significant contributions to achieving this goal with products and solutions.
- KHD is confident with regard to the current 2022 financial year and further development.





# Management Board



CEO

**Jianlong Shen**

- › CEO since October 2020
- › Since 2018 in executive positions in AVIC Beijing's Business Unit Cement
- › Almost 30 years of experience in the cement industry
- › Bachelor degree in cement process from Wuhan University of Technology



CFO

**Jürgen Luckas**

- › Since 2006 with KHD
- › CFO since April 2015
- › Long-term experience as certified auditor and certified tax consultant with an international audit and consulting company
- › Study of Business Administration at the Saarland University



EVP

**Tao Xing**

- › Member of KHD's MB in 2016 and since December 2018
- › More than 30 years of experience in management positions in the cement industry
- › Extensive experience in EPC business
- › Master's degree in engineering from the Southeast University in Nanjing (China)



COO

**Dr. Matthias Jochem**

- › Since June 2019 back at KHD as MB member
- › Knows KHD from 2003-08
- › More than 30 years of experience in plant engineering (cement and power plants)
- › Study of Engineering incl. doctorate (PhD) at RWTH Aachen



CTO

**Matthias Mersmann**

- › Since February 2020 as MB member back at KHD
- › Knows KHD from 1994-2008
- › More than 25 years of experience in the cement industry with focus on technology
- › Study of Engineering at RWTH Aachen

# Agenda

Business Performance 2021

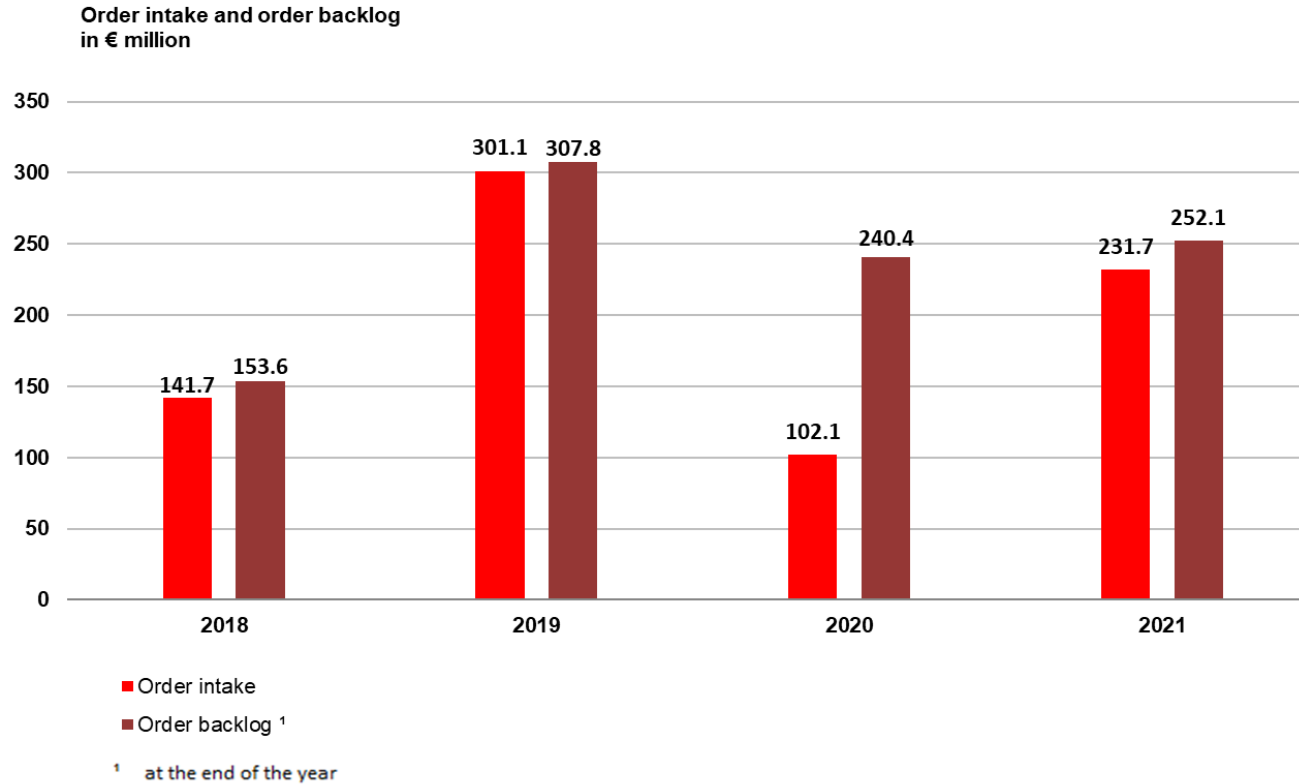
First four months (January – April) of the Financial Year 2022

Project Status and Market Outlook

Strategy and Research & Development

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# Order Intake and Order Backlog



- The strong order intake of € 231.7 million was significantly above the previous year's figure (€ 102.1 million), in line with planning. The sales region of HW India made a very special contribution of 52% to the total order intake.
- The Capex segment achieved an order intake of € 178.5 million (previous year: € 75.2 million).
- The Plant Services segment contributed € 53.1 million (previous year: € 26.9 million) to total order intake. Due to special effects, it will not be possible to extrapolate this very positive development into the future.

- In an unchanged challenging environment, KHD is holding its ground well.
- The order backlog of € 252.1 million as of December 31, 2021 (previous year: € 240.4 million) – together with the expected order intake in FY 2022 – is the basis for full utilization of capacity in the current financial year.

# Key Figures at a Glance

(in € million)	2021	2020	Deviation
Order intake	231.7	102.1	129.6
Revenue	226.3	151.2	75.1
Adjusted gross profit*	19.3	11.9	7.4
<i>Adjusted gross profit margin</i>	8.5%	7.9%	
Adjusted EBIT*	-5.2	-12.5	7.3
<i>Adjusted EBIT margin</i>	-2.3%	-8.3%	
EBT	0.7	-6.6	7.3
Group net loss	-1.1	-8.0	6.9
Earnings per share (in €)	-0.02	-0.16	0.14
Operating cash flow	-12.6	-11.7	-0.9
Cash flow from investing activities	9.1	4.1	5.0
Cash flow from financing activities	-2.0	-1.9	-0.1

**\* Adjustments:**

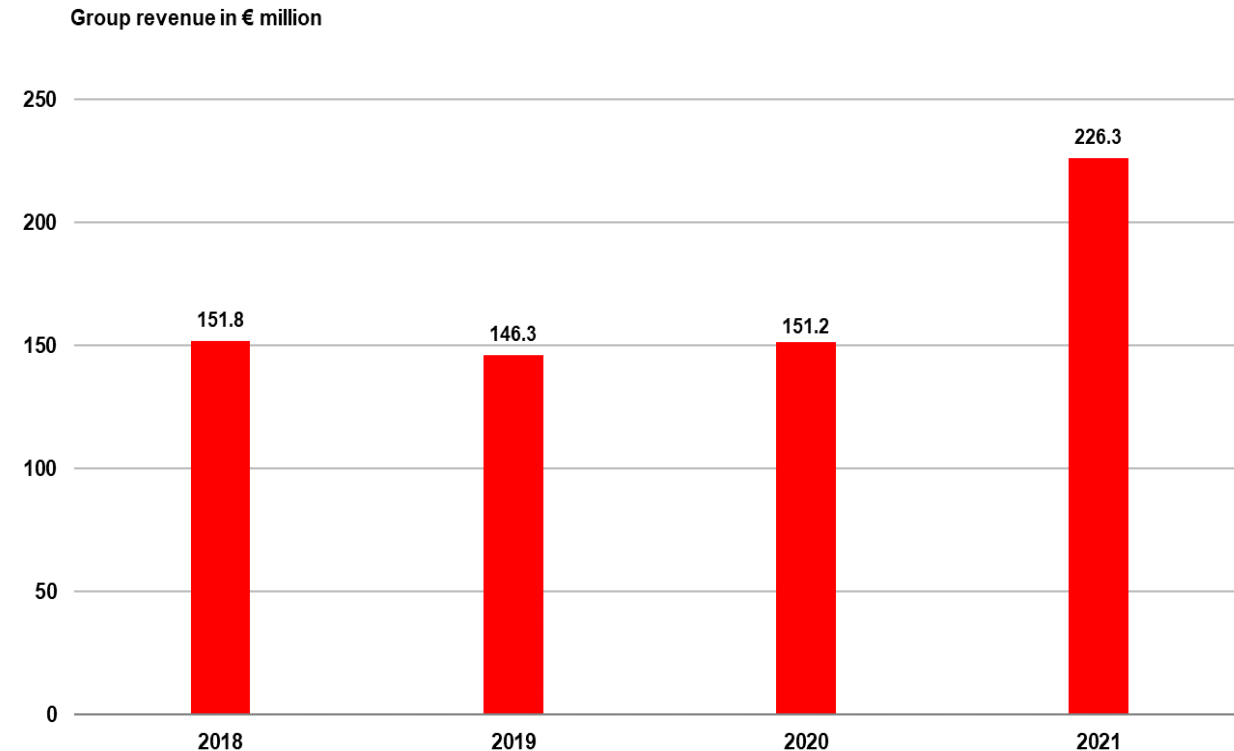
2021: none

2020: € 0.8 million idle capacity

- KHD achieved positive earnings before taxes for the first time since the 2014 financial year!

# Revenue

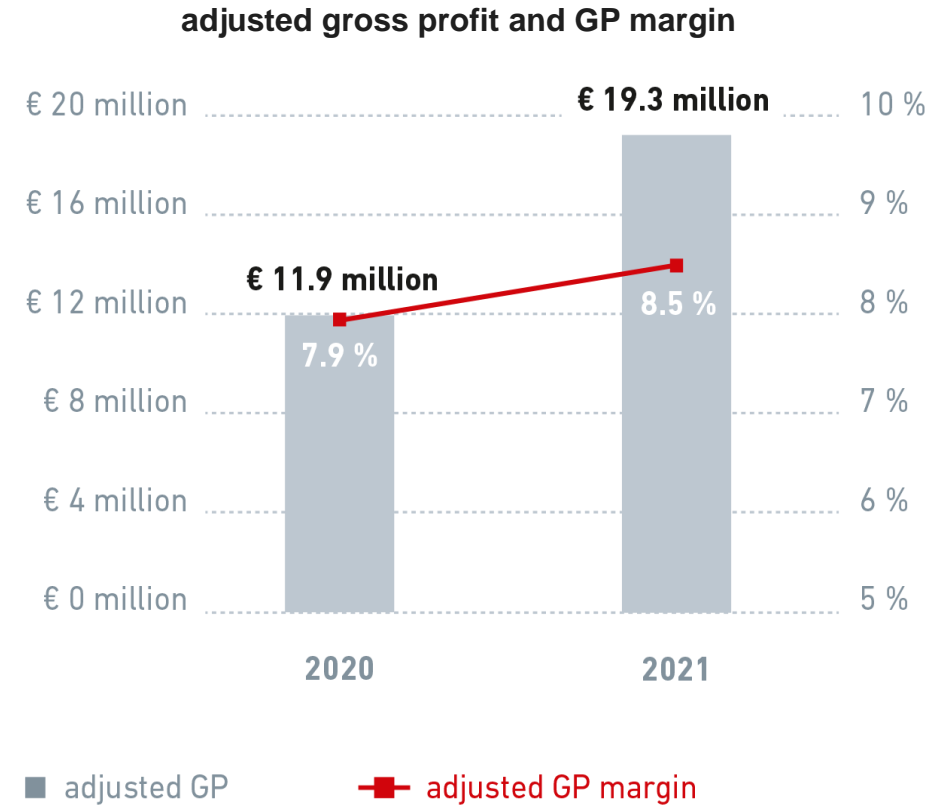
- The revenue target was achieved in full.
- Significant increase in revenue due to progress of projects in line with planning. Of total revenue, 44% were generated in North America and 35% in India and neighboring countries.
- At € 194.1 million, revenue in the Capex segment in FY 2021 was significantly higher than in the previous year (€ 125.4 million).
- Revenues in the Plant Services segment increased to € 32.1 million (previous year: € 25.8 million).





# Group Earnings

- At € 19.3 million, adjusted gross profit\* was significantly higher than the previous year's figure of € 11.9 million.
- Unexpected cost overruns in the execution of some old projects prevented a significantly better margin.
- At € 48.4 million, structural costs were only slightly higher than the previous year's figure (€ 47.5 million), despite the 50% increase in revenue.
- Significantly improved, but still unsatisfactory adjusted\* EBIT of € -5.2 million (previous year: € -12.5 million) / adjusted\* EBIT margin of -2.3% (previous year: -8.3%).
- Without cost overruns on old projects, positive EBIT would already have been possible in FY 2021.
- Positive EBT (€ 0.7 million vs. € -6.6 million in FY 2020) was achieved for the first time since FY 2014.



**\* Adjustments:**

Cost of sales:  
FY 2021: none  
FY 2020: € 0.8 million idle capacity

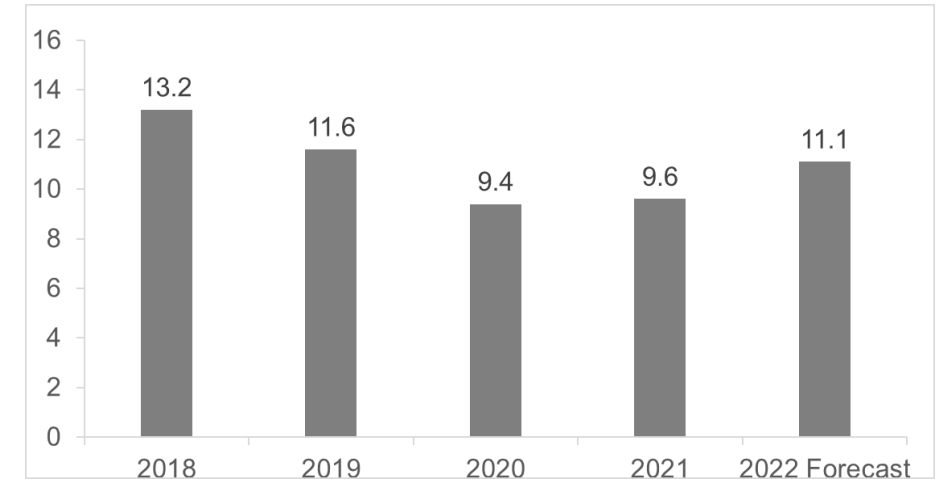
# Group Earnings – Sales Expenses and G&A Expenses

## ■ Sales Expenses

KHD continues to invest actively in market development and intensifying customer relations.

Increase in sales expenses due to higher number of customer inquiries.

KHD continues to rely on intensive (targeted) sales activities in order to convince customers of the added value of KHD products and services.

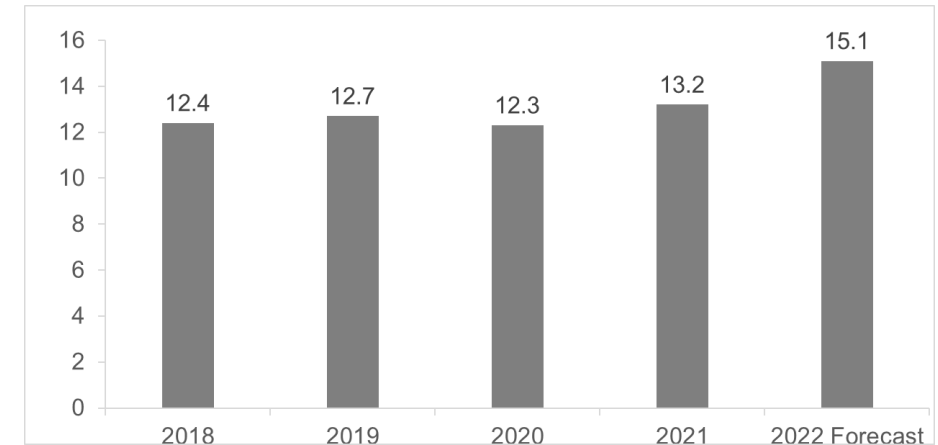


Sales expenses in € million

## ■ General & Administration Expenses

In the 2021 financial year, a moderate increase in G&A expenses was recorded due to higher personnel expenses in the administrative functions.

For a listed group, administrative expenses (5.8% of revenue) are at a relatively low level.



G&A expenses in € million

# Segment Earnings

## Segment Capex

- Revenues of € 194.1 million were significantly higher than in the previous year (€ 125.4 million).
- Gross profit of € 10.1 million (previous year: € 2.9 million / adjusted € 3.7 million); gross profit margin of 5.2% (previous year: 2.3% / adjusted 3.0%).
- Further improvement in margin was prevented by additional costs for old projects.
- EBIT amounted to € -9.0 million (previous year: € -15.2 million / adjusted € -14.3 million).

## Segment Plant Services

- Revenues of € 32.1 million above the previous year's figure (€ 25.8 million).
- Gross profit was € 9.2 million compared to € 8.3 million in FY 2020; gross profit margin of 28.6% is below the very good figure from previous year (32.0%).
- Positive EBIT of € 3.8 million (previous year: € 1.9 million).

# Key Figures at a Glance

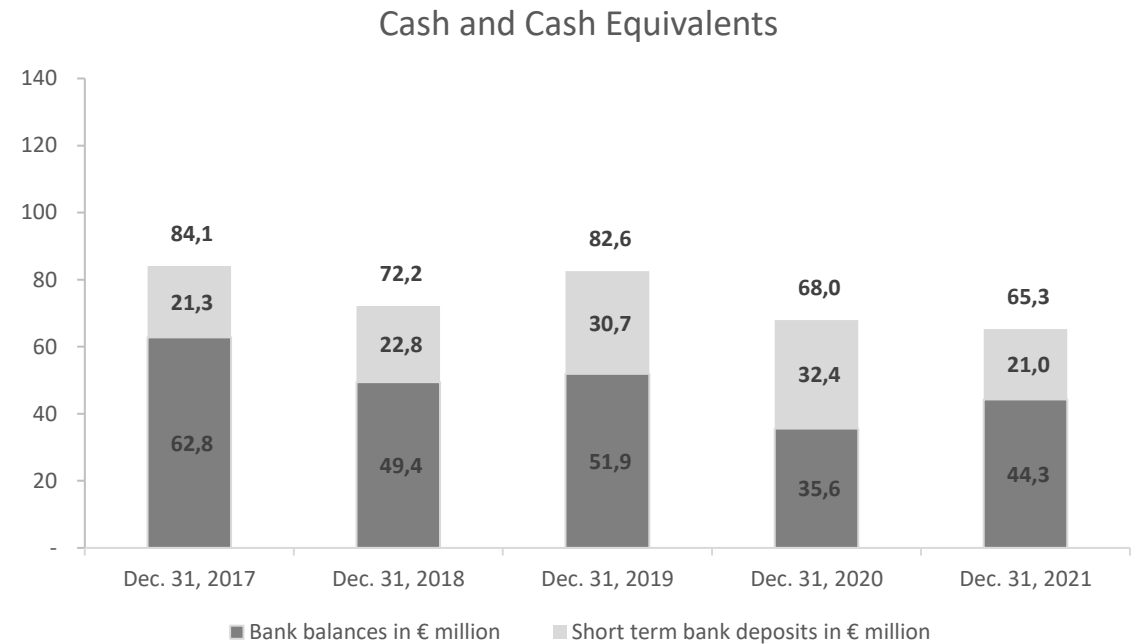
<i>(in € million)</i>	Dec. 31, 2021	Dec. 31, 2020	Deviation
Equity	90.7	89.1	1.6
<i>Equity ratio</i>	<i>29.9%</i>	<i>34.4%</i>	
Cash	65.3	68.0	-2.7
Intercompany loans	95.0	100.0	-5.0
Net working capital	-37.5	-47.7	10.2
Order backlog	252.1	240.4	11.7
Employees	737	670	67

\* Balance of current assets (less cash and cash equivalents) and current liabilities (less current loan)

- KHD with solid liquidity and financing structure as well as fully satisfactory equity base (€ 90.7 million / equity ratio 29.9%).
- Net working capital of € -37.5 million (previous year: € -47.7 million) reflects healthy financing structure of the projects.
- Of the loans to AVIC, € 5.0 million were repaid to KHD.

# Financial Position

- Total assets as of Dec. 31, 2021 amounted to € 303.7 million (previous year: € 258.9 million), of which:
  - Cash and cash equivalents amounting to € 65.3 million (previous year: € 68.0 million).
  - Loans to AVIC totaling € 95.0 million (previous year: € 100.0 million).
  - In total, 54% of the balance sheet total is directly or indirectly available as cash.
- Only € 19.9 million (excluding AVIC loans) in non-current assets (→ „asset light“).

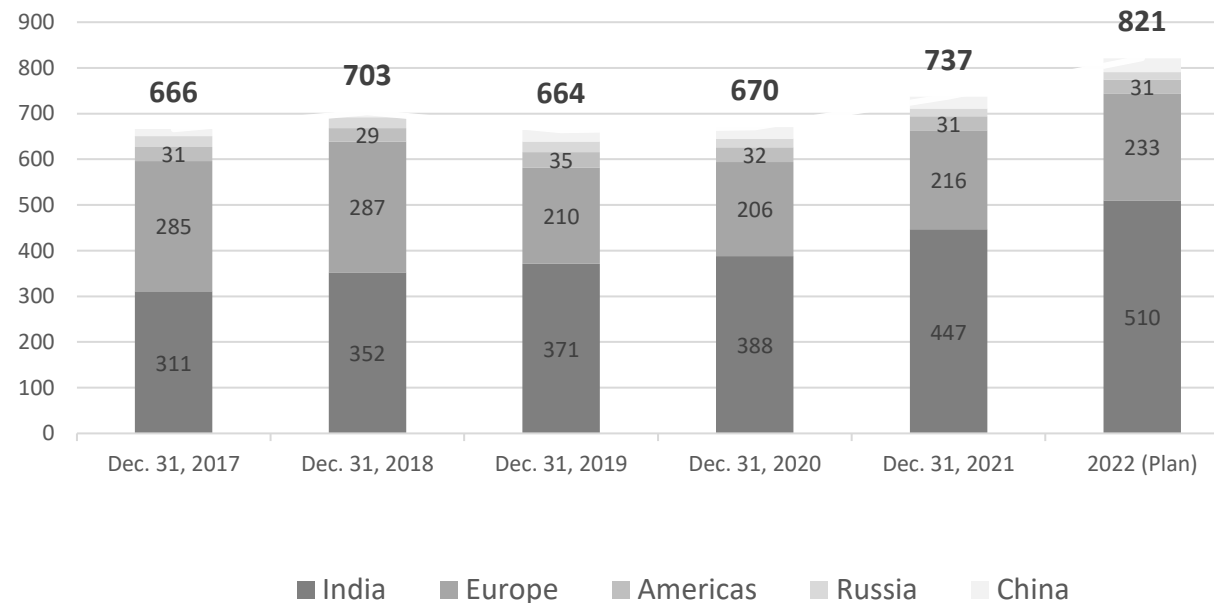


- Robust liquidity and good equity base provide a good basis for the successful implementation of our innovation program as well as for sustainable growth.
- Good working capital and cash management are important success factors.



# Employees

- 737 employees at the end of 2021 (end of 2020: 670 employees) – further targeted increase of capacities planned in India.



- The workforce in Germany is particularly important for securing and expanding our technological core competencies.

# Agenda

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# Order Intake until April 2022



Focus remains on real added value for our customers.

Order intake of € 55 million in the first four months in line with our planning, but below previous year's level:

- € 38 million in the Capex segment.
  - In the Capex segment a number of promising projects are due to be awarded in the 2<sup>nd</sup> half of 2022.
- € 17 million in the Plant Services segment.
  - Order intake € 5 million higher than in the prior year's period.

Importance of Chinese market for future development:

- KHD with high technological competence and reputation.
- Innovative products (PYROREDOX® and PYROROTOR®) as entry point; KHD's "engineer to order" as success factor.

# Key Figures January to April 2022 (1)

<i>(in € million)</i>	Jan. - Apr. 2022	Jan. - Apr. 2021	Deviation
Order intake	55.1	96.7	-41.6
Revenue	63.2	59.4	3.8
Adjusted gross profit *	7.7	5.8	1.9
<i>Adjusted gross profit margin</i>	12.2%	9.8%	
Adjusted EBIT *	-0.8	-2.6	1.8
<i>Adjusted EBIT margin</i>	-1.3%	-4.4%	
EBT	0.2	-0.7	0.9
Group net result for the period	-0.4	-0.9	0.5
Earnings per share (in €)	-0.01	-0.02	0.01

\* **Adjustments:**  
 2022: none  
 2021: € 0.1 million idle capacity

*“Overall, KHD expects an improvement in the result of operations in comparison with the 2021 financial year.”  
 Our planning shows positive earnings before taxes (EBT), which is expected to improve further compared to FY 2021.*

# Key Figures January to April 2022 (2)

<i>(in € million)</i>	Apr. 30, 2022	Dec. 31, 2021	Deviation
Equity	92.4	90.7	1.7
<i>Equity ratio</i>	32.3%	29.9%	
Cash	72.4	65.3	7.1
Intercompany loans	95.0	95.0	0.0
Net working capital	-44.1	-37.5	-6.6
Order backlog	255.4	252.1	3.3
Employees	763	737	26

<i>(in € million)</i>	Jan. - Apr. 2022	Jan. - Apr. 2021	Deviation
Operating cash flow	3.3	10.8	-7.5
Cash flow from investing activities	0.9	1.5	-0.6
Cash flow from financing activities	-0.1	-0.6	0.5



# War in Ukraine

- KHD condemns military aggression and force.
- All KHD companies strictly comply with existing sanctions and restrictions.
- KHD makes a very clear distinction between Russian customers and employees in Russia on the one hand and the Russian government, military, and sanctioned persons on the other.
- Key data regarding Russia from the 2021 Annual Report:
  - € 8.7 million order intake
  - € 4.3 million revenue
  - € 13.2 million order backlog
- The Russian market is of major importance for the companies ZAB Zementanlagenbau GmbH Dessau and KHD Humboldt Engineering OOO (Moscow).
- 17 Employees in Russia
- The dismissal of employees in Russia and the discontinuation of business relations with Russian customers are not seen as responsible action by KHD.



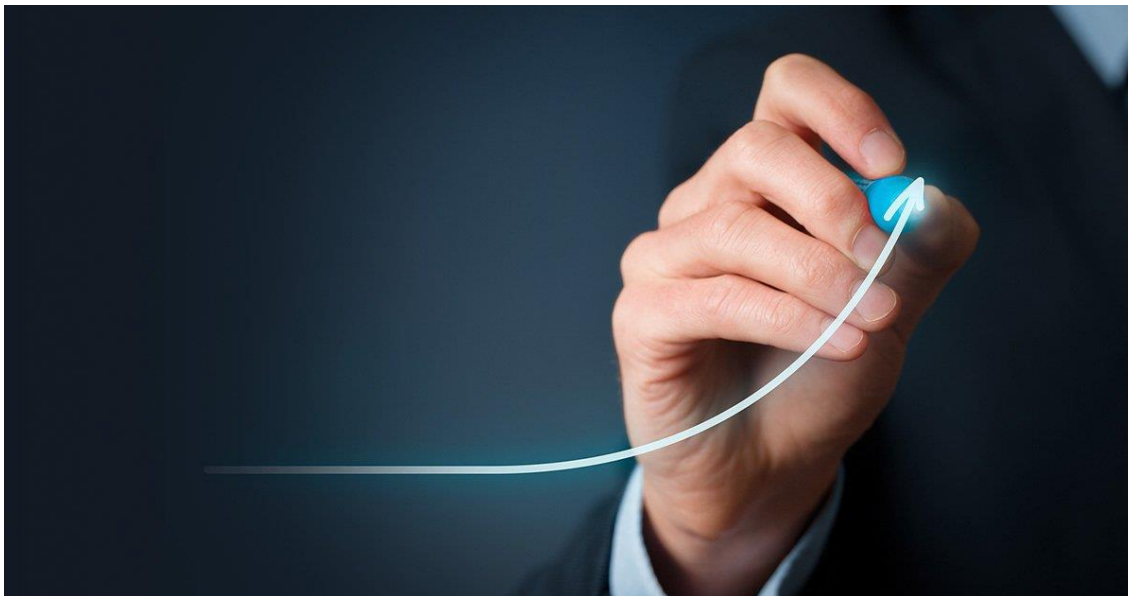
# Impacts on KHD's Business in Russia

- In general, the market for cement plants (including modernizations and expansions) in Russia is assessed as important and promising.
  - KHD traditionally has a strong market position in Russia. However, investments by cement producers have been at a very low level for several years.
  - The direct impact of the war in Ukraine on KHD's net assets, financial position, and results of operations is only moderate.
- 
- KHD intends to execute the order backlog (mainly spare parts) in compliance with existing sanctions and restrictions.
  - New business in Russia is currently (almost) not possible. Accordingly, the planned figures for order intake and revenue from new business in Russia have been reduced radically.
  - Existing resources are being used within the KHD Group as far as possible for business activities outside of Russia.
  - At present, the KHD Group sees no reason to revise downwards the forecast given in the 2021 Annual Report.



# KHD's Potential

- The 2021 financial year closed with positive earnings before taxes – despite adverse circumstances and significant additional costs from legacy projects.
- KHD has realized significant improvements in recent years:
  - Improved performance and competitiveness
  - No further projects with an unbalanced risk/reward ratio



- KHD's technological expertise is recognized worldwide
- AVIC as a strong strategic partner
- Starting FY 2022 with € 252 million order backlog
- Equity ratio and high liquidity as basis for innovation program and growth strategy
- Solid basis for **sustainable** positive results!

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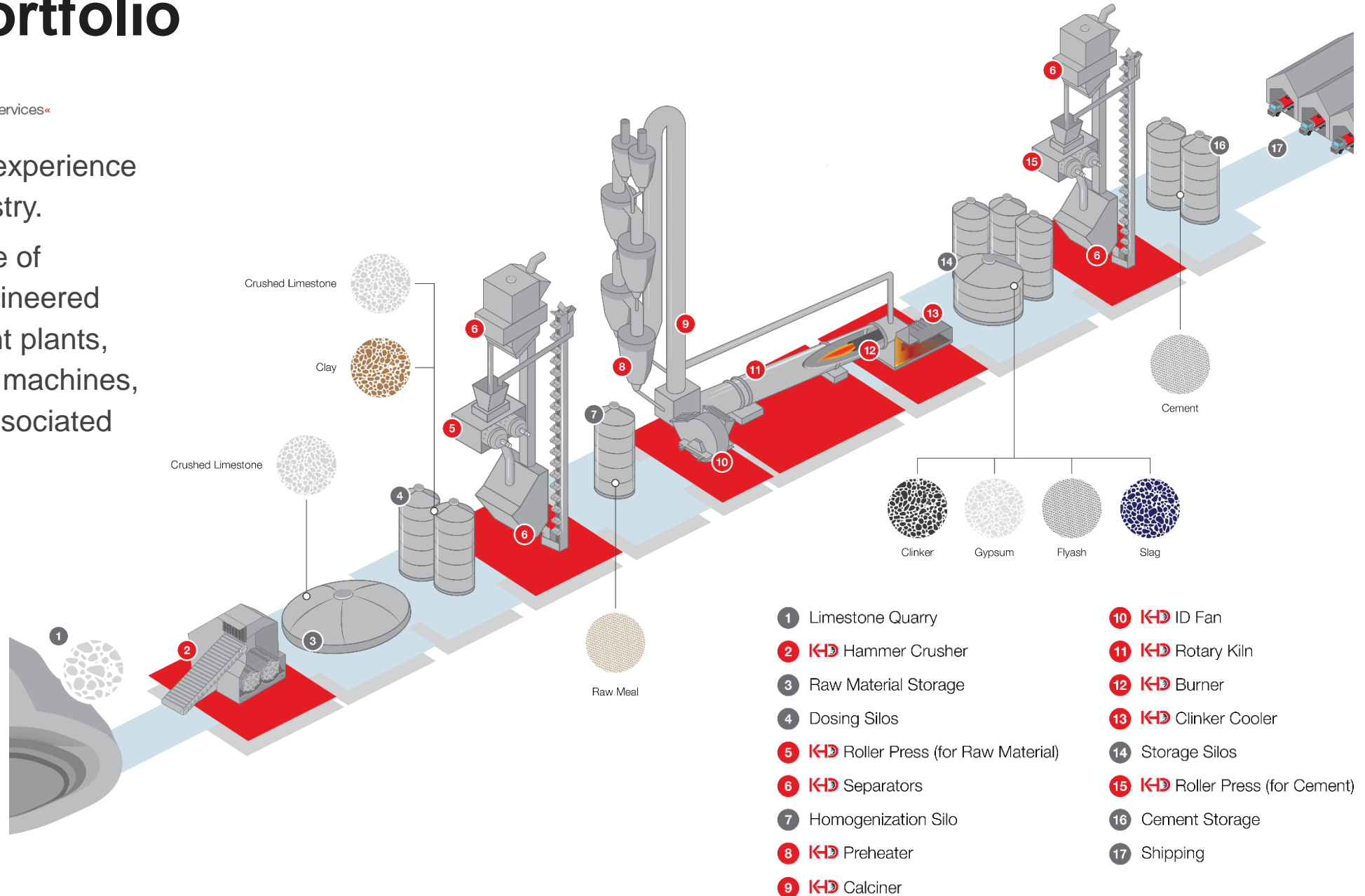
Strategy and Research & Development

Questions

# Product Portfolio

**a global leader**  
in cement plant technology, equipment and services«

- Over 160 years of experience in the cement industry.
- We offer the full line of equipment and engineered solutions for cement plants, including individual machines, spare parts, and associated plant services.





# Business Environment

- The COVID-19 pandemic and associated effects have not resulted in significant adverse impacts on KHD's business in the current FY 2022.
  - Travel restrictions (especially China) are still a challenge.
  - Lockdowns in China, including the Shanghai port, are a concern, but did not have a strong influence on project execution.
- The Russian invasion into Ukraine and the subsequent economic sanctions have led to dynamic effects on procurement markets, in particular for commodities (steel, nickel) and energy supplies. The cut of value chains has led to shortage or even unavailability of certain machinery components. In addition, this triggered risks in cost control and uncertainties in delivery time.
  - As a counter measure, KHD has pre-ordered some critical electrical and mechanical standard parts on stock in order to maintain short delivery times requested by customers.
- An adaptation of the organizational set-up of Humboldt Wedag GmbH in FY 2022 removed unnecessary interfaces in operating processes.
  - Focus on operating excellence
  - Increase efficiency



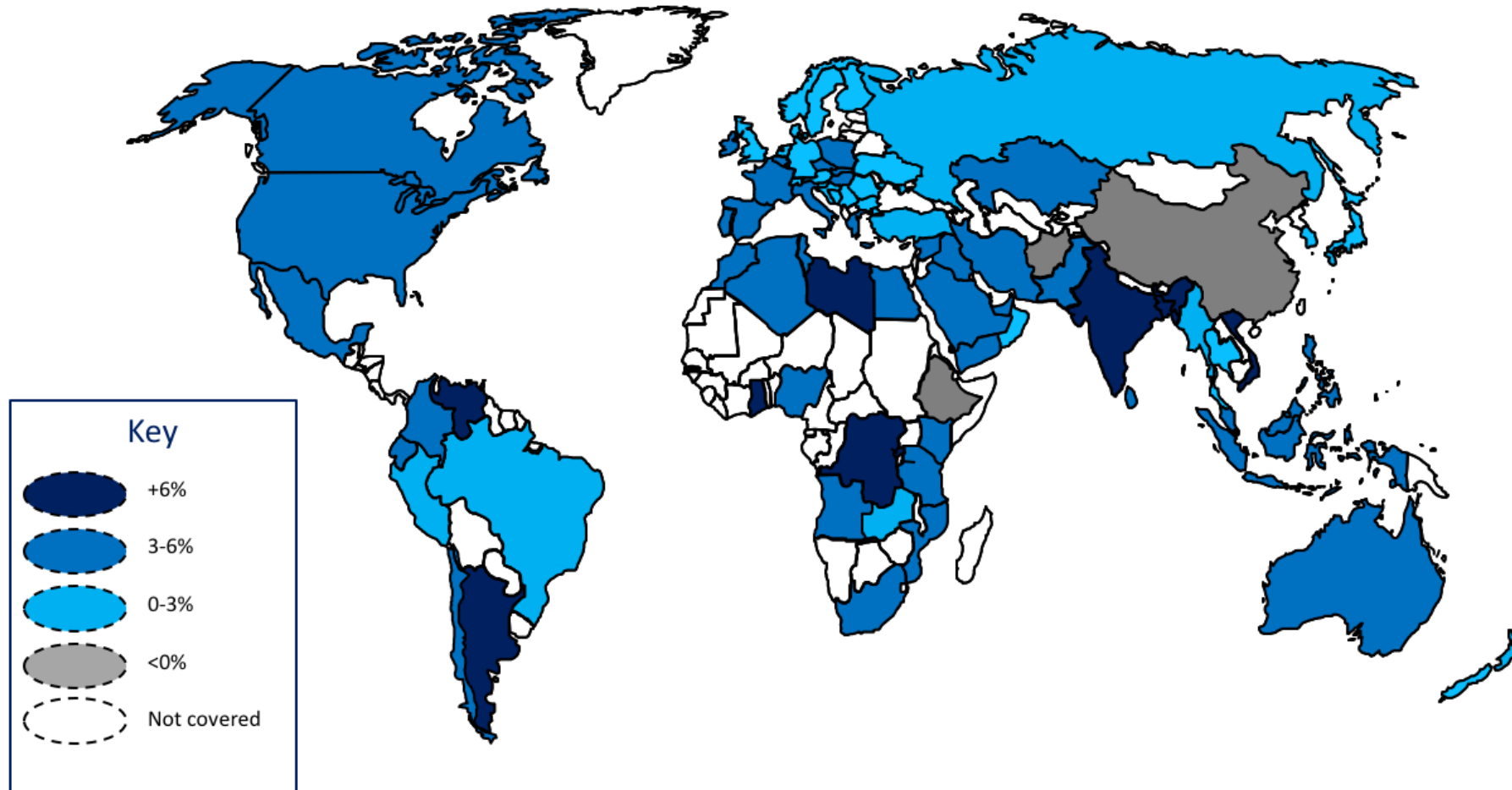
# Project Status



- Improvement in operational excellence and significantly less uncertainties in project execution
  - Reliable cost estimation / good cost control
  - Trouble projects have been brought to a final close
  - Fast response/mitigation to project execution risks
- For new projects rising procurement prices were adequately considered in the respective selling prices.
- The current status of the projects won since FY 2019 confirms the adjustment made to the strategy:
  - Focus on orders with real added value for our customers instead of volume-driven business.
  - Careful consideration of the risk structure of the individual project.
- For projects under execution, we do not expect margins to be adversely impacted by unplanned cost overruns.

# Outlook – Cement Consumption 2022

- Forecasted cement consumption in 2022 according to World Cement  
(status January 2022 – before war in Ukraine)



# Outlook – Markets 2022 (1)



- According to IA Cement, global growth (excluding China) in 2022 cement consumption was expected at 4.0% (as of January 2022 before war in Ukraine).
- Customers' investment projects are focused on projects with environmental aspects (emission reduction, CO<sub>2</sub> reduction and alternative fuels), upgrades and projects to reduce operating costs. The market in India continues to be driven by rising cement consumption and the resulting expansion of capacities.
- Growth in housing is predicted to slow down, with a recovery in commercial construction and ongoing public works. Mature market cement demand is supported by stimulus packages. In China, cement consumption is predicted to drop slightly as the property sector declines.
- Elevated commodity prices will provide a strong economic boost to multiple emerging market regions, particularly in Africa and the Middle East. India and Southeast Asia are expected to report a significant increase in cement production.



# Outlook – Markets 2022 (2)



- Rising inflation has become a more severe effect and led to interest rate counter policies of central banks in USA, Europe and elsewhere. This has a negative impact on cement producers' propensity to invest.
- The invasion of Russia into Ukraine has led to massive economic sanctions against Russia enforced by USA, UK and EU. Global manufacturing value chains have been cut and energy prices as well as prices for some commodities have surged dramatically.
- The corona virus impact is steadily declining, with rising vaccination rates and the rollout of new drug treatments.
- Despite some adverse general conditions, KHD is well positioned in several bids. Currently order intake and margin quality are expected at a satisfying level.
- However, as the bottom line, the market outlook for 2022 and beyond is quite uncertain and depending on a couple of factors which are beyond usual control.



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# Market Requirements change remarkably

## Digitization, Decarbonization and Chinese Efficiency Program will dictate market requirements

- » KHD will use these market requests as an opportunity
- » Benefit from / improve a technological leadership position as basis for appropriate pricing

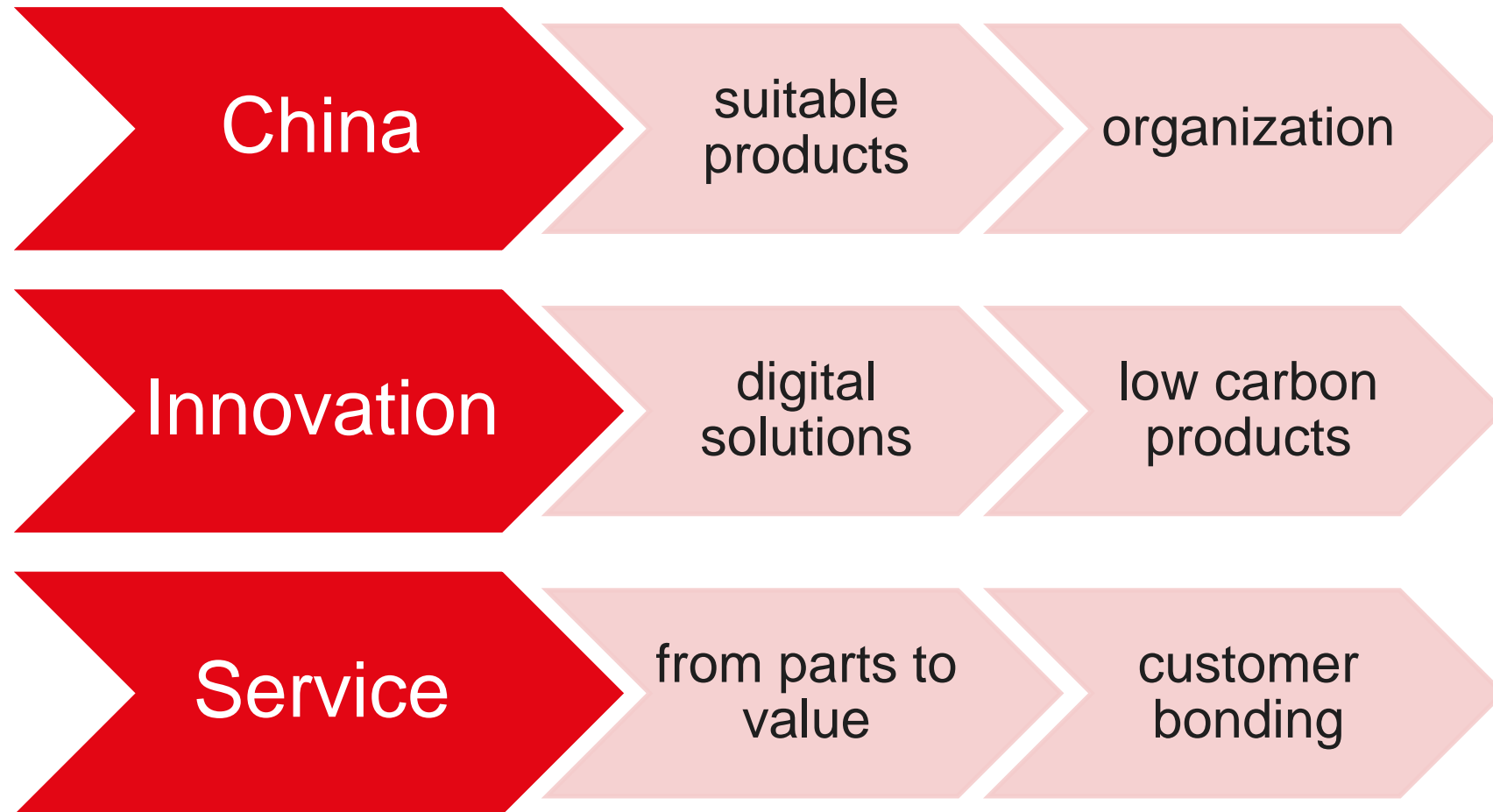
## Market Pulls:

- » China will execute a multi-billion investment program to renovate the existing cement plant population
- » Decarbonization is mandatory and commencing in steps already today
- » Decarbonization will lead to almost doubling the production costs for cement (Capex & Opex) and may put conventional equipment under price pressure
- » Clients expect digitized solutions and XaaS (x as a service)

## Technology Pushes:

- » IIOT/cloud and AI technologies
- » Low carbon technologies

# Product Strategy for a successful Future



# Strategy – China

1. The **modernization of plant population** is ordered by central government; over 1,000 brownfield and many greenfield projects will be awarded by 2025
  2. KHD benefits from its **excellent brand recognition**
  3. Close **collaboration with AVIC**
  4. KHD's **organization and skills are adapted / extended** for being successful on Chinese ground
  5. KHD's **product portfolio is under adaptation** to better suit Chinese market requirements
- **KHD is fully committed and well on track regarding the successful implementation of the “Go China” initiative started in FY 2021**

# Strategy – Innovation

## 1. Improvement of existing product portfolio

Reorganization of Center of Excellence to foster interdisciplinary cooperation of all engineering disciplines for better product quality

## 2. Development of a suitable low carbon technology portfolio

- Identification of „KHD-fit“-technologies for low carbon cement production
  - Calcined clay, AF technologies (PYROROTOR®), fine grinding, oxyfuel, Ca-looping ...
- Networking with potential technology suppliers for adjacent technologies
  - Air separation, electrolysis, membrane, PSA, TSA, amine scrubbing...
  - Cross sector coupling (Power, Mining, Steel, Chemical...)
- Networking with industry associations and research communities

## 3. Development of digital solutions and applications

- RunTimeOptimizers (“RTO”) – AI to improve operating performance of KHD equipment
- IIOT/Cloud solutions for data utilization as a platform for new revenue streams and services
- Digitization of engineering lifecycle management (quotation → delivery → operation)

# Strategy – Services

## 1. Increasing service business by selling value

- Proprietary spare parts business is facing increasing competition from low-cost 3<sup>rd</sup> party suppliers (incl. piracy)
- Clients continue converting fixed cost to variable cost (shifting responsibility to suppliers)
- Inclusion of value creating activities which are classically in client's responsibility can create a value addition for both sides and generate a business frame for higher spare parts turnover

## 2. Embedding of spare parts into service business

- Extended service contracting for performance and/or maintenance allow inclusion of KHD spare parts
- Extended service contracts turn client's fixed costs to variable costs and provide solution to client's acclaimed "knowledge drain"

## 3. Connecting IIOT technologies to service

- Utilize RTO (AI) and IIOT technologies as paid services connecting to parts sales
- SaaS, XaaS, extended service contracting

# Action Focus in FY 2022

## 1. Increase market success in China

- Roller Press as well as kiln upgrades (preheater and coolers)
- PYROREDOX® and PYROROTOR® as leading-edge technologies

## 2. Increase effectiveness of R&D

- Streamlining of R&D program with more focus on recognizable innovation
- Stage/gate plans for R&D projects for controlled and efficient progress
- Installation of a dedicated IMO (Innovation Management Officer) reporting directly to the CTO
- Quarterly reporting of R&D progress

## 3. New products/technologies to be introduced to the market

- RTO (runtime plant operation optimizer – based on AI)
- Smart plant: IIOT connection for grinding or kiln plant
- Clay calciner
- Oxyfuel kiln plant

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# Questions



# Disclaimer for Forward-Looking Information

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