# Dürr Group at a glance



Dürr Aktiengesellschaft February 2024 Bietigheim-Bissingen www.durr-group.com



# Dürr Group: 3 global brands



#### **Dürr AG**

Dürr Systems AG

Carl Schenck AG

**HOMAG Group AG** 







# Dürr Group: 5 global divisions

DURR GROUP.

**Sales 2023: € 4.7 billion, employees 2023: approx. 20,500** 

#### Paint and **Final Assembly Systems**

- Paint shops
- Final assembly systems
- Testing technology
- Filling technology
- 1.4 billion

#### **Application Technology**

- Paint application
- Gluing and seam sealing technology
- Products for industrial painting
- € 0.6 billion
- 2,084

#### **Clean Technology Systems**

- Air pollution control
- Noise abatement systems
- Coating lines for battery electrodes
- Systems for solvent recovery
- 0.5 billion
- 1,525

#### **Industrial Automation Systems**

- Balancing technology
- Tooling systems
- Filling technology appliances
- Production automation for automotive, medical and consumer products
  - 0.6 billion
  - 4,240

#### Woodworking **Machinery** and **Systems**

Machinery and plants for woodworking

- 1.6 billion
- 7.348









HE | HOMAG



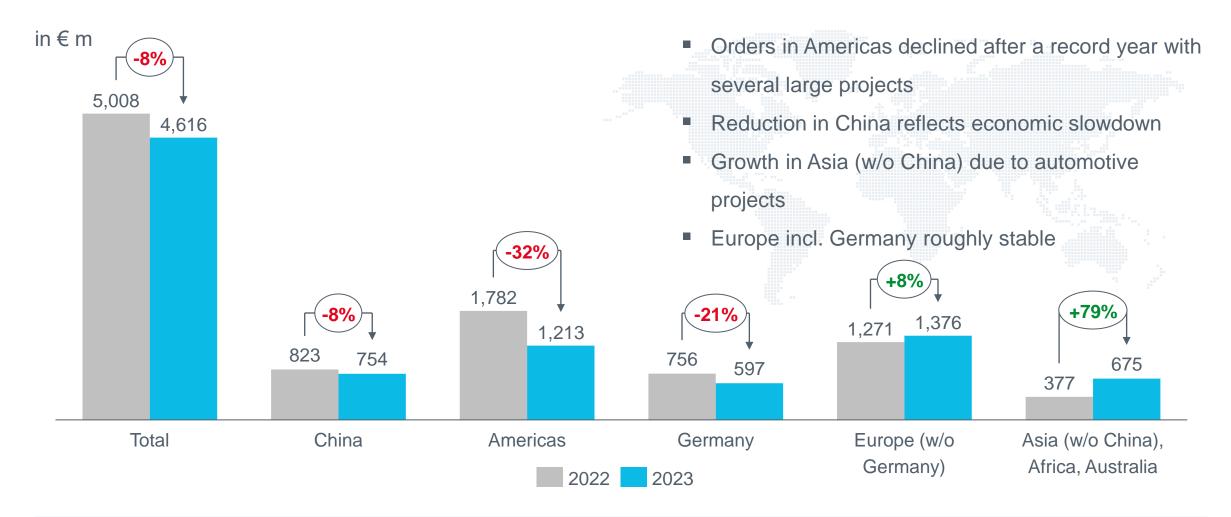
Employees 2023



# Regional development of order intake



### Increasing orders from Europe and Asia outside China



Geographic diversification stabilizes order intake

# **Company history**



DÜRR GROUP.

Metal shop for roof flashing founded by Paul Albert Dürr 1896 First subsidiary abroad (Brazil) 1964 Acquisition of Behr and IPO 1989 Acquisition of Carl Schenck 2000 Acquisition of HOMAG Group: Diversification into woodworking industry 2014 Founding IIoT platform and digital marketplace tapio 2017 Acquisition of Megtec and Universal: expansion in the area of environmental technology 2018 Acquisition of Teamtechnik and Hekuma: 2021 Diversification into automation Acquisition of BBS Automation and Ingecal 2023

# **Innovation path**





1950	First facility for chemical surface treatment				
1963	First facility for automated dip coating				
1998	Delivery of first <b>Eco</b> paint paint robot				
2008	Presentation of dry overspray separation system <b>Eco</b> DryScrubber				
2010/14	Introduction of high-speed rotating atomizer <b>Eco</b> Bell 3 – Exterior and interior paint application				
2016	World's first 7-axis painting robot with increased flexibility and high cost-cutting potential  EcolnCure dries complex car bodies faster and more gently while providing a better paint quality than conventional ovens				
2019	<b>Eco</b> PaintJet: Two-tone painting of car bodies without overspray  Smart painting processes: The software applications of the DXQ product family offer customers new opportunities for maintenance, quality assurance and process analysis in paint shops to improve overall equipment effectiveness (OEE)				
2020	Paint shop of the future: revolutionized production layout for paint shops				
2021	DXQenergy.management: Software solution for intelligent energy management in paint shops				
2023	Introduction of high-speed rotating atomizer <b>Eco</b> Bell 4 – Exterior and interior paint application				

2023

# **Innovation path**



### **SCHENCK**

First SCHENCK balancing machine 1907 Instant balancing machine with direct unbalance display 1930 Illuminated spot vectormeter; 1953 unbalance size and angular location at a glance First round transfer machine for electric armatures 1982 Balancing of finally assembled engines 1995 Fully automatic unbalance correction in wheel-tyre assembling 2016 eTeno - Fully automatic balancing machine for eDrives 2018 SchenckOne: software as a service 2020 CAST 2: Further developed software for the fully automatic sequence control 2021 of spin tests and test cycles

# **Innovation path**



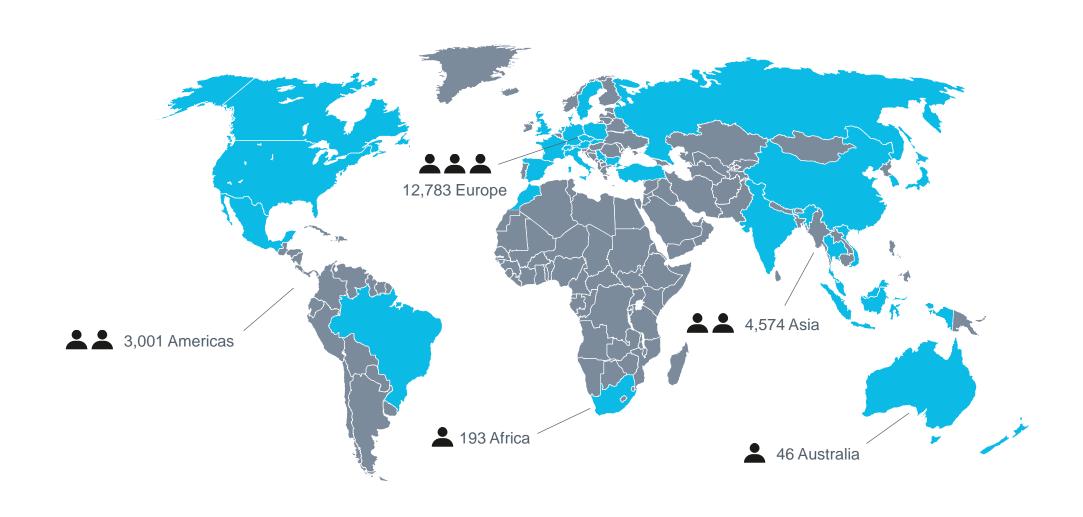
#### **HE | HOMAG**

1962 The world's first edge banding machine using hot-cold process First combined format processing and edge banding machine 1967 First high performance plant for batch size one 2001 LaserTec: edge banding by laser 2009 SORB TECH: new material for low-vibration 2010 and stable machinery construction New machine operating concept: powerTouch 2013 First digital assistance systems / applications 2017 tapio: The first digital ecosystem (open IoT platform) for the whole woodworking industry Digital twin: Virtual commissioning of machines and systems using a digital twin 2018 Autonomous cell: In conjunction with automated guided vehicles and through the use of robots, the cells operate autonomously HOMAG Cube: Core element of the digital product sets, that connects the apps to the racks and label printers 2020

# **Global positioning**



2023: Approx. 20,500 employees at 142 locations in 32 countries



# **Dürr Executive Management Team**



#### Management Board Dürr AG



Dr. Jochen Weyrauch CEO



Dietmar Heinrich CFO

#### **Division Heads**



Bruno Welsch
Paint and Final
Assembly Systems



Dr. Lars Friedrich Application Technology



Dr. Hannes Schmüser Clean Technology Systems



Jörg Brunke Industrial Automation Systems



Dr. Daniel Schmitt Woodworking Machinery and Systems

# Dürr Group strategy for profitable growth





Glocal	Technology Leadership	digital@Dürr	Efficiency	Life Cycle Services
<ul> <li>Global business with local supply chain</li> <li>Strong regional setup (Europe, Asia, North America)</li> </ul>	<ul> <li>Most efficient &amp; sustainable products</li> <li>Rethinking production processes</li> <li>Highest quality</li> </ul>	<ul> <li>Software as differentiator</li> <li>From smart Apps to MES and whole ecosystems</li> <li>Internal digital transformation</li> </ul>	<ul> <li>Drive synergies, esp. scale, processes</li> <li>Lean and agile organization</li> <li>Optimize global footprint</li> </ul>	<ul> <li>Leverage vast installed base</li> <li>Whole range of consulting, training, support</li> <li>Predictive &amp; fast</li> <li>≥ 30 % of sales</li> </ul>
Enablers:	Sustainability	Mergers & Acquisitions	Finance Management	People Development

**5% - 6%**CAGR sales revenues (2022 – 2030)

≥ 8%
EBIT margin
(Mid-cycle target)

≥ 25%

ROCE
(Mid-cycle target)

digital@Dürr: Driving digitalization is at the core of our strategy

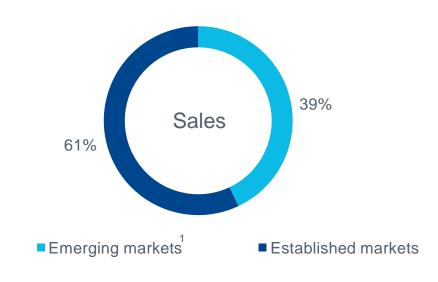
# **Strategy: Global Presence**



### High investments in global network of locations – reinforcement of local activities

- Extension of global presence: new markets reinforced, investments in established markets with good prospects (North America, Germany)
- 15 production, test and engineering centers: extended, modernized or newly built
- Campus concept transferred to key locations: efficient processes, open communications, sustainable energy concept
- Expansion of production facilities: increase in internal value added (improvement in quality and project execution)
- Increasing vertical depth of production in the individual regions: faster response to customer requirements
- Acquisitions are playing a major role in Dürr's expansion strategy

in €m	2017	2018	2019	2020	2021	2022	2023
Investments	88.0	74.4	102.6	76.4	107.8	138.5	157.1
Acquisitions	15.3	125.4	10.8	78.0	62.2	39.0	370.9
Total	103.3	199.8	113.3	154.4	170.1	177.6	528.0

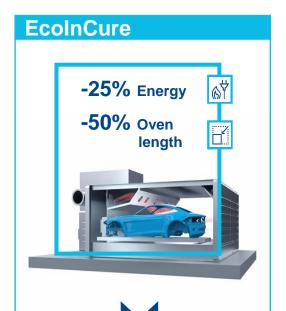


<sup>&</sup>lt;sup>1</sup> Asia (excl. Japan), South and Central America, Africa, Eastern Europe

# Strategy: Technology leadership



### CO<sub>2</sub> neutral paint shop by Dürr



- Efficient drying process: car body heated from the inside
- Electric instead of gas driven ovens



 Software solution to monitor energy consumption and identify improvement potentials

#### Paintshop of the Future, incl EcoProBooth: Dürr's approach as USP







- Minimize need for air conditioning:
  - Small modular box combines interior + exterior painting
  - Service cubicles allow easy access from outside the paint booth
- Electrified air treatment with Oxi.X RV flameless air purification

Dürr is the enabler of emission reduction in paint processes



# **Strategy: Innovation**



Digitalization strategy: digital@Dürr

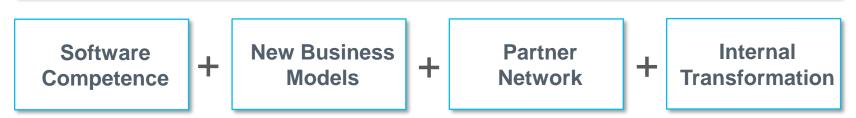
**Vision:** Leader in digitalization in the Dürr Group's business areas

**Mission:** Data-driven software products, solutions & business models

**Objectives:** New revenue streams + differentiation + disruption protection

#### Strategy:

- Develop and expand software competencies
- Develop customer oriented software solutions with new digital technologies
- Introduce new business models to the customer
- Exchange for synergies, learning effects and support within Dürr subgroups
- Strengthen IIoT networks (tapio)
- Drive internal digital transformation





# **Strategy: Innovation**

### DURR GROUP.

### Digital Factories are developing professional software

- Harmonizing software development activities of the divisions
- 20 agile teams working in modern IT company like environment
- Product development and project steering done at Digital Factories; programming done at near-shore partners in Europe and India
- Agile approach: Development from prototype to end-product together with pilot customers
- Pricing model based on value add at customer
- Digital factories to be established or expanded at international locations by 2023 (China, India, Poland)

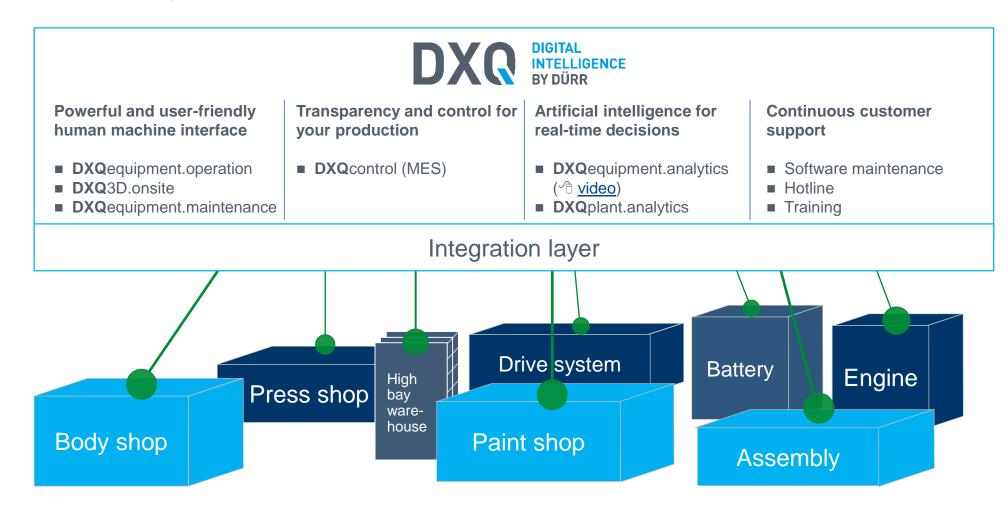




# **Strategy: Innovation**



### **DXQ** software family for automobile production



# **Strategy: Efficiency**



### Efficiency is the guiding principle for product development and processes

#### **Product development / engineering:**

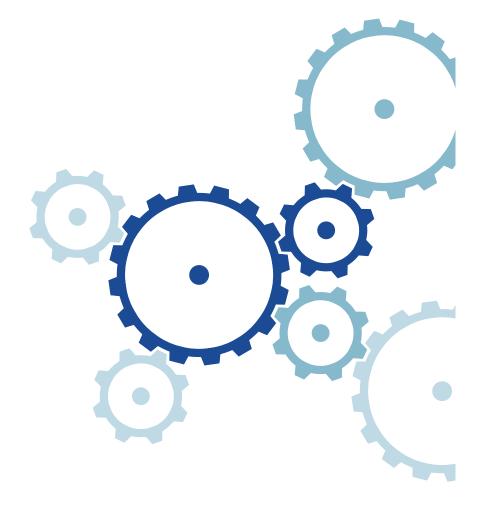
Modular products: global deployment, local development and production

#### **Processes:**

- Worldwide standards (e.g. CRM, SAP) from distribution to order handling
- IT integration: worldwide uniformity of data and systems
- Smart Processes: digitalized and networked processes

#### **Knowledge management:**

- Know-how of employees a decisive edge in competition
- Worldwide knowledge transfer: intranet, training sessions, vocational training



# **Strategy: Life Cycle Services**

### DÜRR GROUP.

### **Service with a significant share of sales**

#### Initiatives:

#### Global spare parts warehouse, accelerated spares delivery

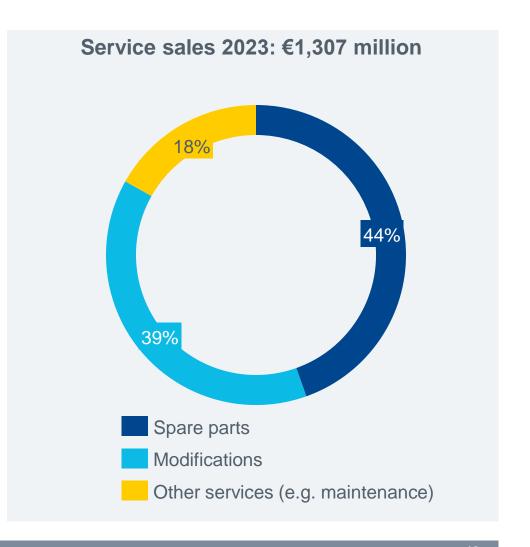
- Worldwide warehouse structure to reduce lost time on customs clearance
- Automated warehouses
- 24h delivery service for warehoused parts

#### 24/7 hotlines for all divisions

- 10 different hotlines for paint shop customers across the globe
- Level 1-3 structure for a fast and competent relationship management

#### **Dürr Promoter Score**

- Customers are given a feedback opportunity via a simple-to-use system
- Feedback is tracked and implemented on a long-term basis

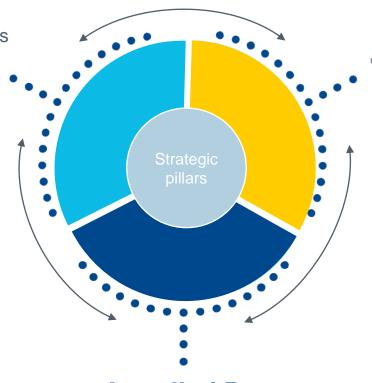


# **Strategy: Life Cycle Services**



### **Spare parts**

- Intensification of proactive spare parts sales
  - Define standardized spare part portfolio
  - Use IIoT tools for more efficient service execution
    - Approach competitor units



#### **Brownfield**

- Strengthen brownfield business
- Offer IIoT solutions to customers

### **Installed Base**

- Active usage of installed base via revamp strategy
- Offer IIoT solutions, OEE optimization and modernization to customers
  - Use IIoT tools for more efficient service execution
    - Approach competitor units



### Holistic sustainability framework across five fields of action









Value Creation & Supply Chain



Employees & Qualification



Management & Governance



Engagement & Society



Global innovation and technology leader supporting our customers with sustainable production solutions & services



Reduction of environmental impact during our own value creation while assuring a transparent supply chain



Attractive, fair and responsible employer with various career opportunities and offers for people development



Corporate strategy geared towards profitable growth, sustainable businesses and responsible management



Socio-economic contribution through social engagement, partnerships and participation in global initiatives

# Sustainability - key milestones achieved



### Holistic sustainability approach with five fields of action



Employees & Qualification







Engagement & Society

Products & Services





Management & Governance

#### Climate protection:

- Climate strategy in line with 1.5°C target
- Invest instead of compensate
- Own emissions reduced by around 55%



#### **Transparency:**

Sustainability reports according to GRI

#### Governance:

 Executive Board remuneration includes sustainability targets

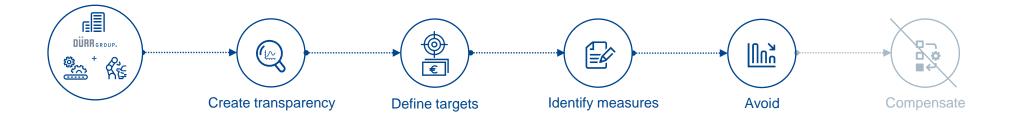


Dürr Group supports sustainable transformation of the economy

# Dürr Group Climate Strategy 2030 - commitments



Taking responsibility: Development of a science-based climate strategy



#### Five key objectives:

- We are committed to the Paris Climate Agreement
  - Application of **GHG-Protocol** as standardized approach for emission reporting
- Submission and validation of targets by Science Based Targets initiative (SBTi)
- Science-based climate strategy in line with the 1.5°C target
- Investments instead of compensation: Climate certificates are not an option today!



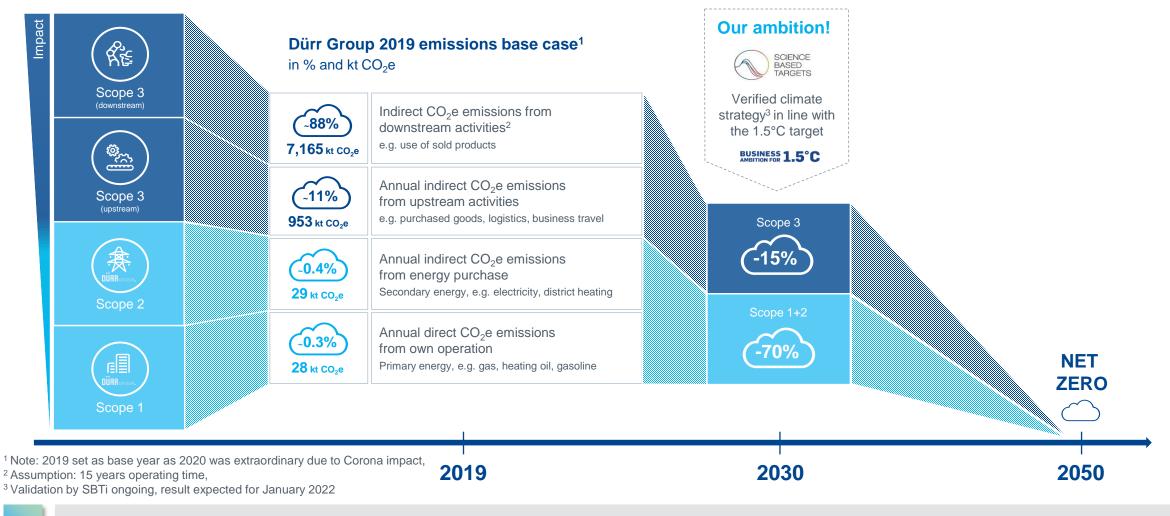


Dürr actively supports the 1.5°C target

# Dürr Group Climate Strategy 2030 – data and targets



Our path to net zero: Emissions breakdown and ambitious target framework





### Sustainable solutions for the automotive industry

#### **Eco**DryScrubber

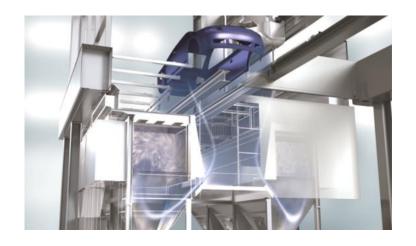
- Resource saving dry separation
- Up to 60% less energy consumption in the spray booth
- 80% less water consumption

#### **Eco**InCure

- Innovative car body curing from the inside
- Reduces electrical energy consumption by 25%
- Space-saving layout: 50% shorter ovens

#### **Eco**PaintJet

- Overspray free sharp edge painting
- No intermediate drying: 25% less energy
- No masking needed: saves 15m² waste







### DÜRR GROUP.

### Sustainable solutions for the general industry

#### **Environmental business**

- Air pollution control systems for exhaust gas, exhaust air and critical substances
- Reducing emissions through combustion of pollutants

### Woodworking technology

- Intelligent software for optimized cutting patterns
- Reduction of scrap and offcuts
- Less waste
- Shorter machine running times



#### **Balancing technology**

- Well-balanced rotors run more smoothly, last longer and produce less noise
- Reduced energy consumption
- Reduced noise level
- Extension of service life





### DÜRR GROUP.

#### Electric vehicles are a chance for Dürr

#### Dürr EV business benefiting from

- Less complex powertrain: more automation in final assembly
- Larger model variety: flexibilization of production plants
- EV car body geometry: more need for overspray-free painting (EcoPaint Jet) and new oven technology (EcoInCure)
- Battery cooling: filling of refrigerants
- Battery assembly: battery gluing, gap filling
- Battery cell coating
- Balancing and spin testing of e-drives
- NEW: Testing of electric drive trains (Teamtechnik)

#### Dürr equipment input: Comparison ICE vs. e-mobility

	ICE	E-mobility
Painting	✓	neutral 🗸
Final assembly	✓	More business ✓
Drive + battery manuf.	-	Add. business 🗸
Balancing	✓	Less business ✓
Filling	✓	neutral 🗸
Testing	✓	neutral 🗸



### Megatrend sustainable construction opens up chances

Up to **90%** 

CO<sub>2</sub> reduction compared to traditional construction methods

80t

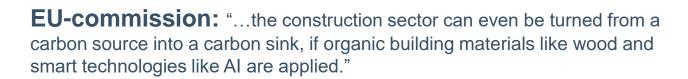
CO<sub>2</sub> are bound in a wooden house – would be emitted with traditional construction



Up to 18 floors

High buildings constructed with wood permitted in the US as of 2021

> 30.000 cubic meters of CLT will be used for the new Walmart headquarter.

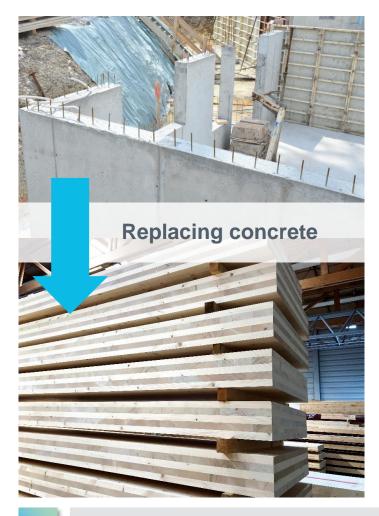


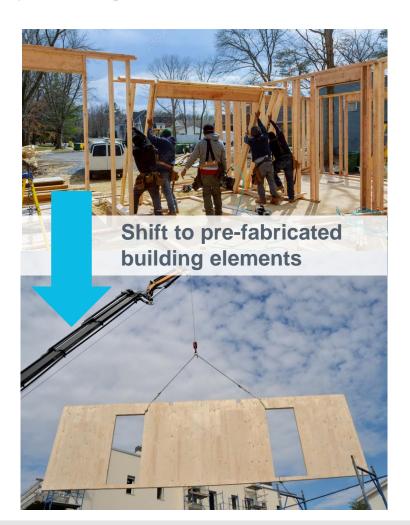
Source: YouTube video Cre LCT-System DE, Urbaner Holzbau, Schriftenreihe Forst BW, Bd. 86

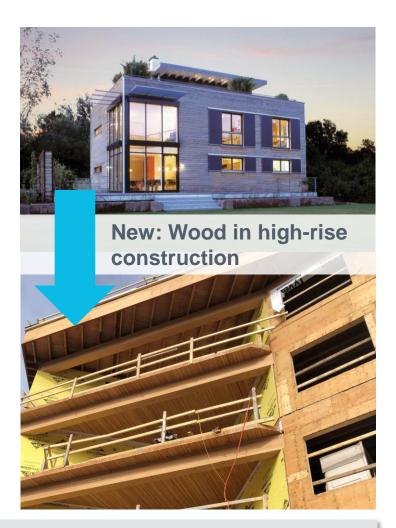
### Construction trends are a tailwind for HOMAG



Sustainability awareness, efficiency and regulations to drive construction industry







Clear trend towards wood as sustainable construction material

# Portfolio in solid wood construction equipment



**HOMAG** Group's product offer to timber construction industry

### HE | WEINMANN



 Timber framing, framework assembly, elements and modules creation

### HE I SYSTEM TM



 Scanning for material weaknesses, sawing out weak parts, finger jointing

### HE KALLESOE



Gluing boards to produce (cross-)laminated timberwood

See our solid wood construction portfolio trailer (2min)



**Expanding coverage of value chain in a fast-growing market** 



### **Automobile factory including supplier park**

Body-in-white

Gluing technology



- Complete paint process
- Turnkey paint shops
- Conversions, modernizations
- Conveyor technology (incl. AGV's)
- Application technology
- Paint application for new plants and conversions
- Overspray-free painting
- Seam sealing and insulation technology
- Components & plastic painting
- Air pollution control systems



- Turnkey final assembly
- Conveyor systems (incl. AGV'S)
- Gluing solutions (incl. Ev's)
- Marriage systems
- Filling equipment (incl. EV's)
- Testing systems
- Consulting



- Balancing and diagnostic technology
- Coating lines for battery electrodes
- Assembly and testing of electric drives
- Assembly of controllers and electronics









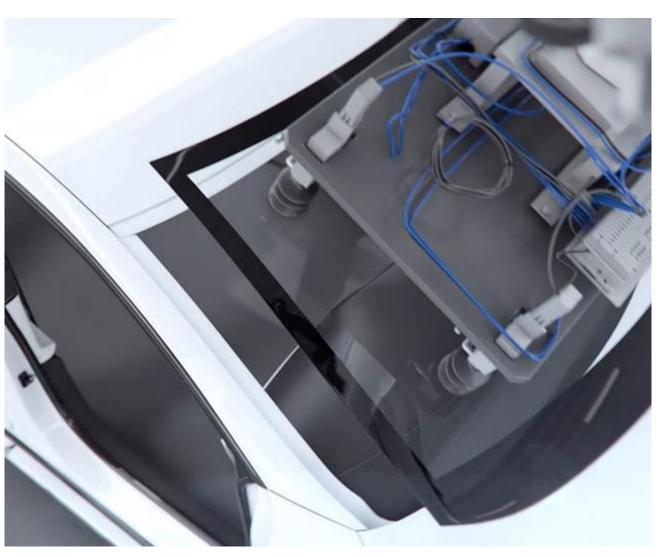








**Body-in-white: gluing technology** 



### **Gluing technology:**

 Automated gluing systems for challenging tasks in body-in-white production





### Paint shop: complete paint process



#### **Turnkey paint shops**

 RoDip technology for perfect corrosion protection, quality and lasting value





#### **Turnkey paint shops**

Modular oven systems for curing coatings and refining paint to create the perfect finish





### Paint shop: complete paint process



### **Turnkey paint shops:**

 Spray booths with integrated application and conveyor technology as the centerpiece of a modern paint shop





#### **Conveyor technology:**

- Overhead and floor conveyors for maximum accessibility and production efficiency
- Automated guided vehicles (AGV's)





Paint shop: application technology



# Application technology for new plants, conversions:

High-tech systems for automated paint application,
 e.g. robots, atomizers, quality assurance. Focus:
 quality, efficiency, environmental sustainability





#### Seam sealing and insulation technology

 Efficient and sustainable systems for seam sealing and insulation





Paint shop: application technology and air pollution control systems



#### Components and plastic painting:

 Leading-edge and customizable solutions for bumper and plastic painting





#### Air pollution control systems:

 Broad range of air pollution control systems for paint application and oven processes





**NEXT.**assembly: turnkey final assembly



#### **Turnkey final assembly:**

- Conveyor systems
- Gluing solutions
- Marriage systems
- Filling equipment
- Test systems





**NEXT.**assembly: conveyor systems and gluing solutions



#### **Conveyor systems:**

- Floor, overhead and marriage conveyor systems
- AGVs





### **Gluing solutions:**

- Manual insertion
- Automatic start-stop insertion
- Automatic line tracking insertion





**NEXT.**assembly: marriage systems & filling equipment



#### **Marriage systems:**

- Chassis integration, marriage
- Bolting systems, handling systems
- Mechanical preparation and sub-assembly lines
- Axle assembly and adjustment





### **Somac® Filling equipment:**

- Filling equipment for fuels and media
- Filling adapters
- Leak test & measurement





**NEXT.**assembly: marriage systems & filling equipment for electric cars



### **Marriage systems:**

- Greater automation of assembly (due to less complex drivetrain than the conventional counterparts)
- "Marriage": fixing the battery in the underbody computer controlled; up to 36 screws are brought to the screw point fully automatically



### **Somac® Filling equipment:**

■ Filling the batteries with coolant (thus the batteries do not get too warm and can achieve the maximum range)





**NEXT.**assembly: testing systems for passenger cars and commercial vehicles



Test systems for passenger cars and commercial vehicles:

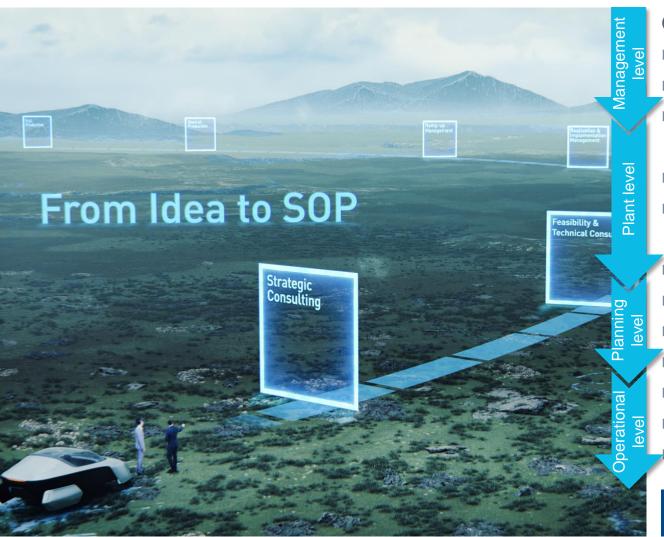
- Wheel alignment, headlamp adjustment
- Setting of driver assistance systems
- Roll, Brake, ABS Testing
- Electronics testing
- Autonomous driving, testing for E-mobility



## Solutions for the automotive industry

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**NEXT.assembly: Dürr Consulting** 



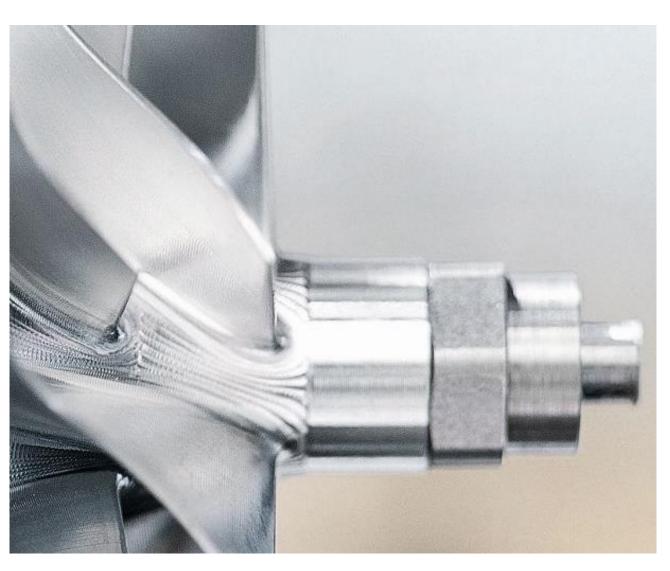
#### Our portfolio on all levels

- Market strategies and analysis
- Production strategies
- Digitalization Strategies and Readiness Assessments
- Location Analysis and Relocation Planning
- Masterplanning and Production Footprint Development
- Technology Consulting & Benchmarking
- Technology and Flexibility Readiness Checks
- Layout Development and Factory Planning
- Process and Manufacturing Engineering
- Digital Use Case Planning
- PMO Services
- Interface Management





### Engine and transmission manufacturing: balancing and diagnostic technology



### **Balancing and diagnostic technology:**

 Balancing and diagnostic technology for rotating and oscillating parts and aggregates (e.g. crankshafts, turbochargers, armatures of electric engines)





Drive technology: balancing and diagnostic technology



### **Balancing and diagnostic technology:**

 Balancing and diagnostic technology for wheels, tires and components





### **Drive technology: solutions for electric vehicles**



### **Coating systems for battery electrodes:**

 Turnkey systems for the coating (including drying and solvent recovery) of lithium-ion electrodes as part of the battery production process





### Assembly and testing systems for electric drives:

- Assembly lines for electric drives including balancing
- Systems for testing fully assembled electric and hybrid drives























**SCHENCK** 









Consulting

(e.g. in-ear headphones)



**AGRAMKOW** 





DURR GROUP.

### Industrial painting and filling technology



### **Industrial painting:**

 Standardized application products/systems for painting, gluing and sealing applications in various industries





### Filling technology:

 Refrigerant supply systems and functional inspection systems for air-conditioning systems and heat pumps

**AGRAMKOW** 

DÜRR GROUP.

### Balancing technology and woodworking technology



### **Balancing technology:**

 Balancing technology for rotating and oscillating parts and aggregates in numerous industries (e.g. electrical industry or aerospace industry)





### **Woodworking technology**

 Woodworking machinery, e.g. panel production, sawing, surface processing, formatting and edge banding

HE | HOMAG

### **Woodworking technology**





### **Furniture production:**

 Machines and systems for efficient and networked furniture production in batch size one



### **Components:**

 Machines for the production of flooring, windows, doors or staircases



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### Woodworking technology and noise abatement systems



#### Timber house construction:

 Machines and turnkey production lines for the industrial production of prefabricated timber houses

HE | HOMAG HE | SYSTEM TM HE | WEINMANN HE | KALLESOE



### Noise abatement systems:

Sound insulation systems, e.g. for gas turbines,
 machinery and integrated noise emission systems



### DURR GROUP.

### Air pollution control systems



### Air pollution control systems:

 Air pollution control technologies for production processes in the chemical and pharmaceutical industries as well as for coating, printing and other applications



## **Battery manufacturing**

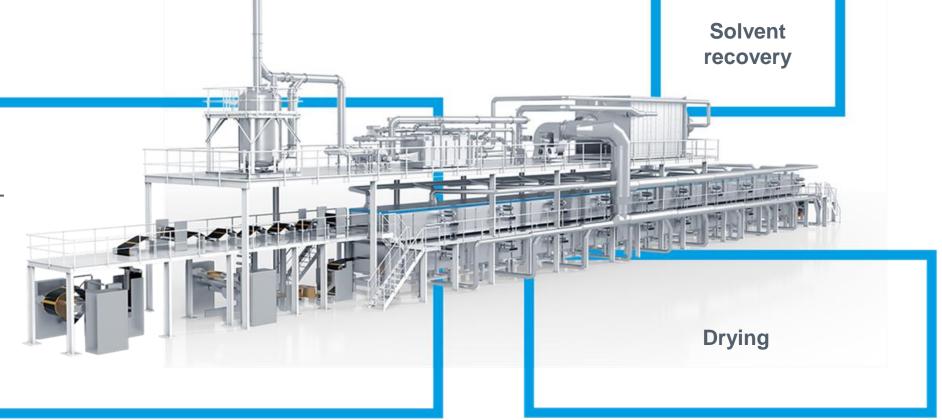


Turnkey approach for electrode manufacturing



### Coating

- Simultaneous towsided coating
- Tandem coating, partnering with TechnoSmart



Two coating technologies and highly efficient solvent recovery

### DURR GROUP.

### **Production systems for consumer and medical devices**



#### **Production systems for consumer devices:**

 Automated production systems for consumer devices, such as electric tooth brushes and hearing aids

#### **Production systems for medical devices:**

 Automated production systems for medical devices, such as injection systems, inhalers, infusion sets and contact lenses

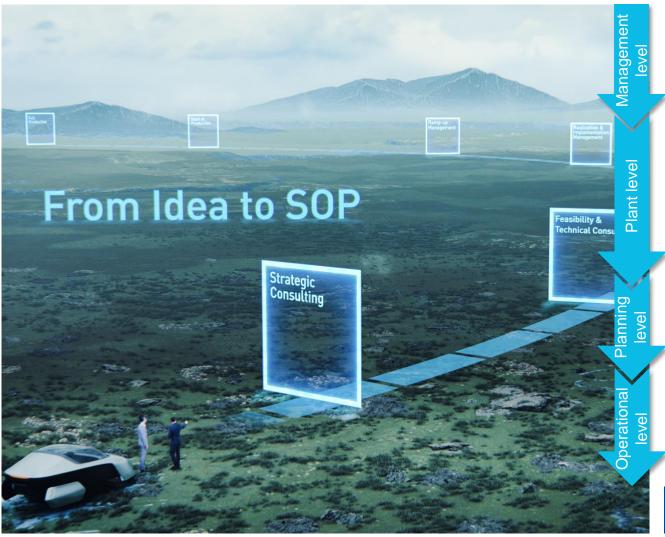






DÜRR GROUP.

**NEXT.assembly: Dürr Consulting** 



#### Our portfolio on all levels

- Market strategies and analysis
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- Digitalization Strategies and Readiness Assessments
- Location Analysis and Relocation Planning
- Masterplanning and Production Footprint Development
- Benchmarking, Structural Development and Technology Consulting
- Technology and Flexibility Readiness Checks
- Layout Development and Factory Planning
- Digital Use Case Planning
- PMO Services
- Interface Management



## Dürr Group technology with impressive impact













>100 \*
the area of
New York's
Central Park

painted with Dürr technology every year

500 m/s (=Mach 2)

peripheral speed reached in spin-test equipment of Dürr Group's subsidiary Schenck RoTec 100,000

pre-fabricated houses build with HOMAG equipment every year 100 million

annual metric tons greenhouse gases reduction thanks to Dürr oxidation plants – equaling to 50% of German industrial emissions 20 million km

of furniture edges treated with HOMAG machines every year – this equals 500 times around the globe



Dürr Group production equipment as lever for our customers

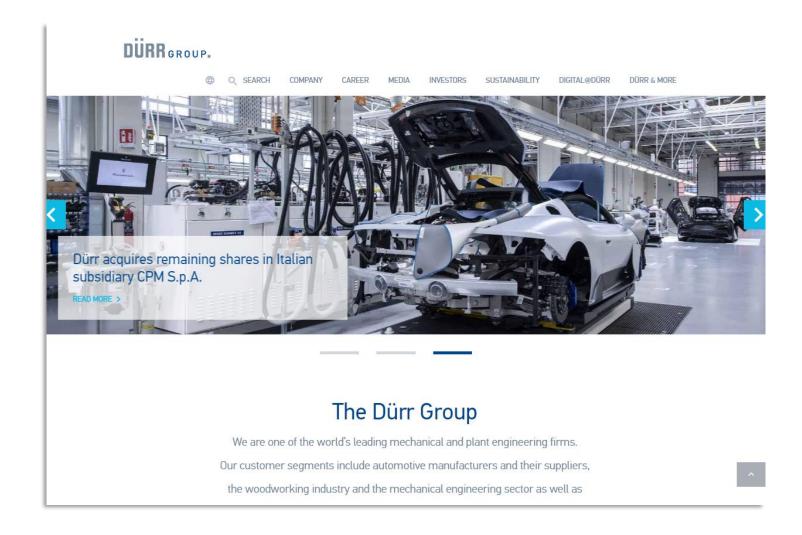
# Dürr Group: Key figures



	2018	2019	2020	2021	2022	2023
Order intake (in € million)	3,930.9	4,076.5	3,283.2	4,291.0	5,008.0	4,615.5
Sales (in € million)	3,869.8	3,921.5	3,324.8	3,536.7	4,314.1	4,627.3
EBIT (in € million)	233.5	195.9	11.1	175.7	205.9	191.4
Net earnings (in € million)	163.5	129.8	-13.9	84.9	134.3	110.0
Equity (in € million)	992.7	1,043.4	908.1	1,005.6	1,124.2	1,177.0
Employees	16,312	16,493	16,525	17,802	18,514	20,597

## More information at www.durr-group.com







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Subject to change. The information in this presentation contains only general descriptions or performance characteristics, which may vary in different cases. The requested performance characteristics are only binding it they are expressly agreed in the contract.

## Dürr Group at a glance

**Corporate Communications & Investor Relations**February 2024

Bietigheim-Bissingen