



ALUMINIUMWERK UNNA AG
A member of Zhongwang-Group



COMPANY PRESENTATION

Version: September 2023

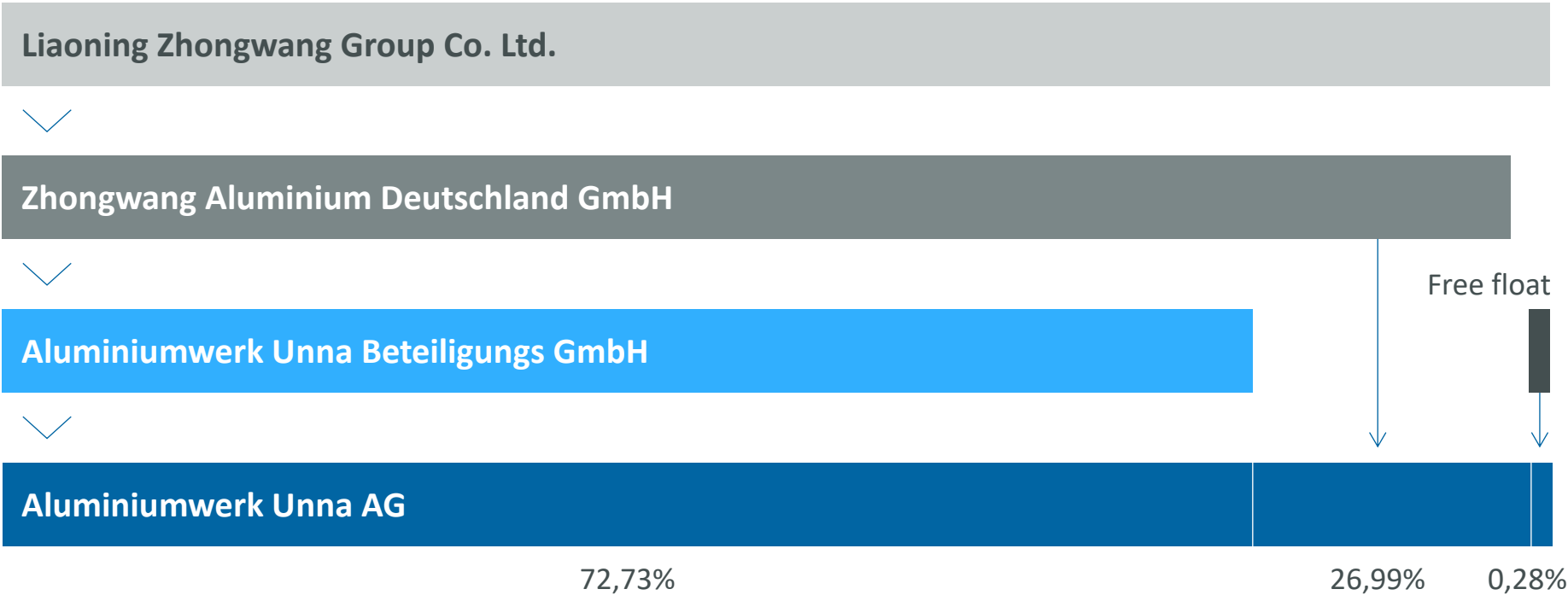
AGENDA

- I. The company
- II. Products & markets
- III. Key figures and sales
- IV. Plant tour



I. THE COMPANY

SHARE HOLDER STRUCTURE



ALUMINIUMWERK UNNA AKTIENGESELLSCHAFT

1914

founded

440

employees

1,075,000

square feet
(approx. 25 acres)

60%

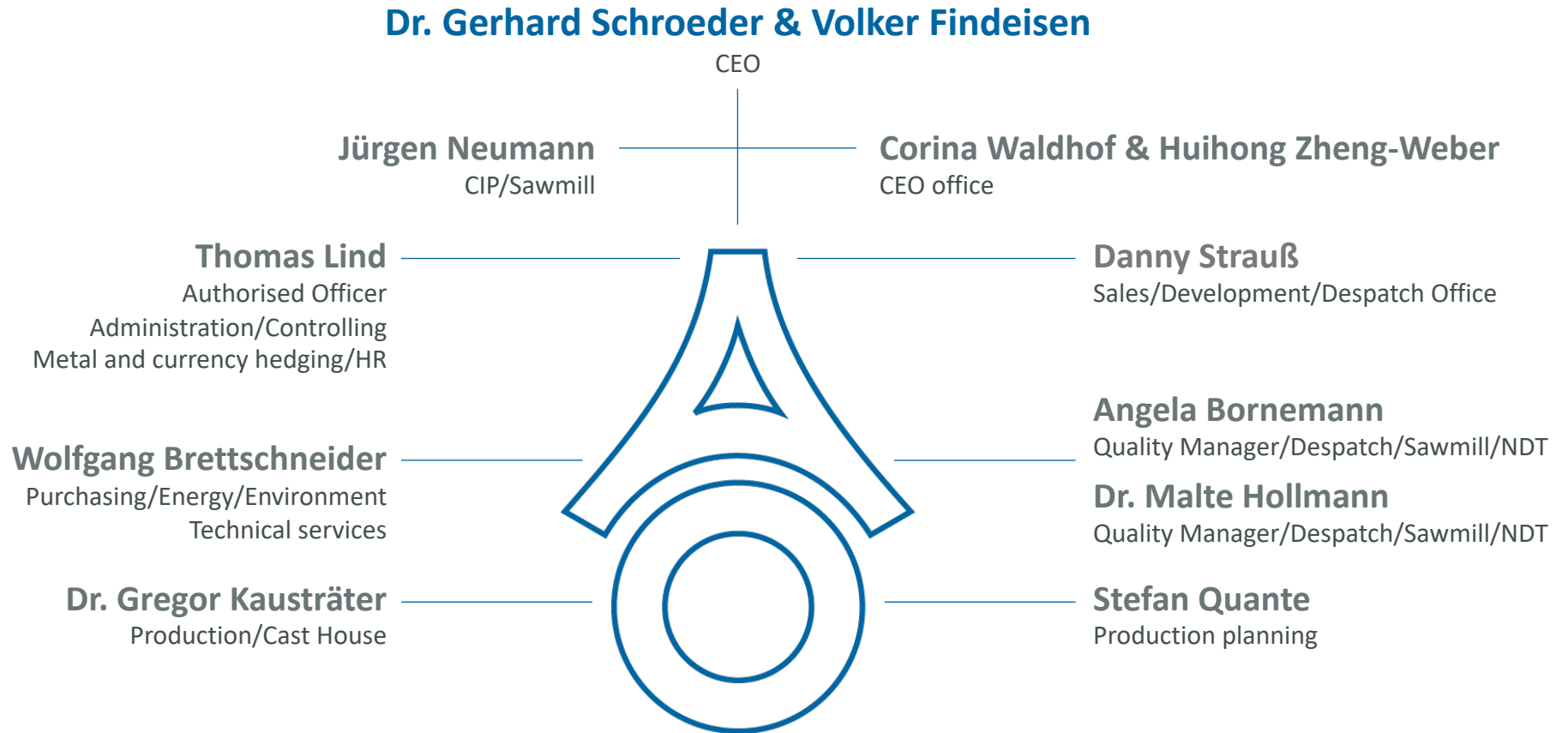
under roof

Fully integrated:

- Cast house
- Extrusion plant
- Drawing plant
- Heat treatment
- Straightening
- Cut to length shop



ORGANISATION LEADERSHIP





II. PRODUCTS & MARKETS

PRODUCTS

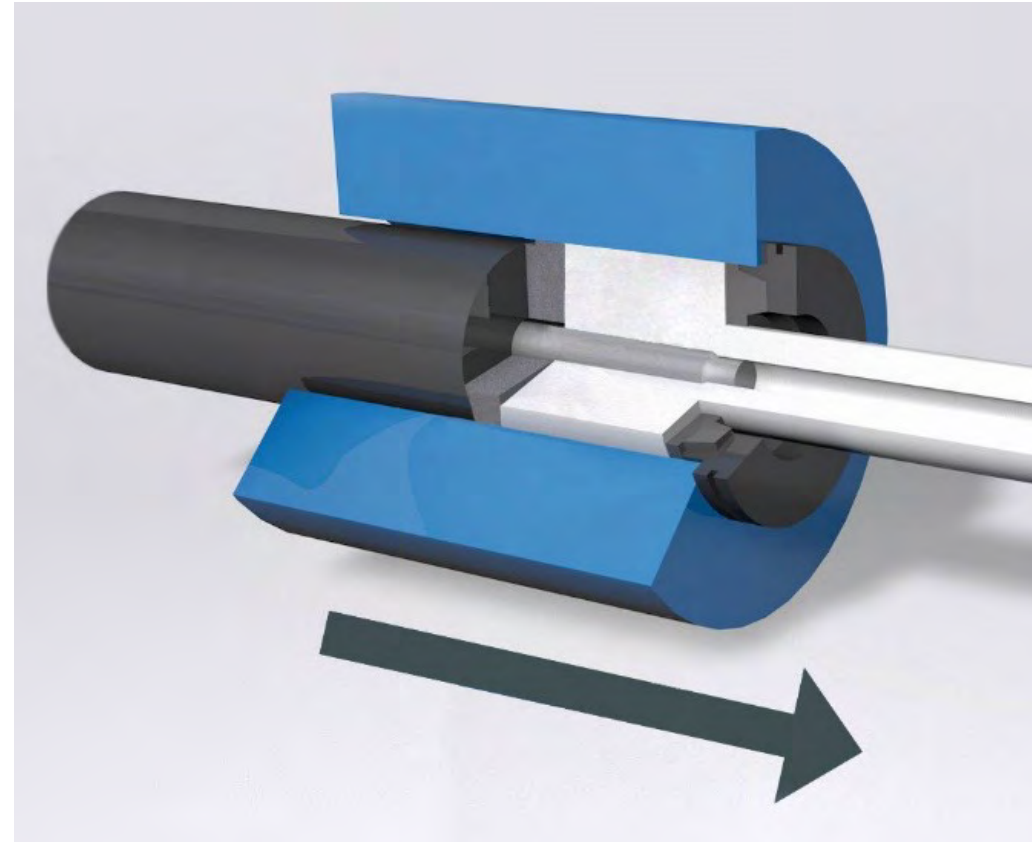
Seamless extruded tubes

- Extruded
- Extruded and drawn
- 4 mm to 300 mm OD
- All alloys

Porthole extruded tubes

- Extruded
- Extruded and drawn
- 4 mm to 355 mm OD
- Alloy 6xxx, 3xxx, 1xxx

Profiles and bars for special applications



INDUSTRIES AND MARKETS

Aerospace/Defense

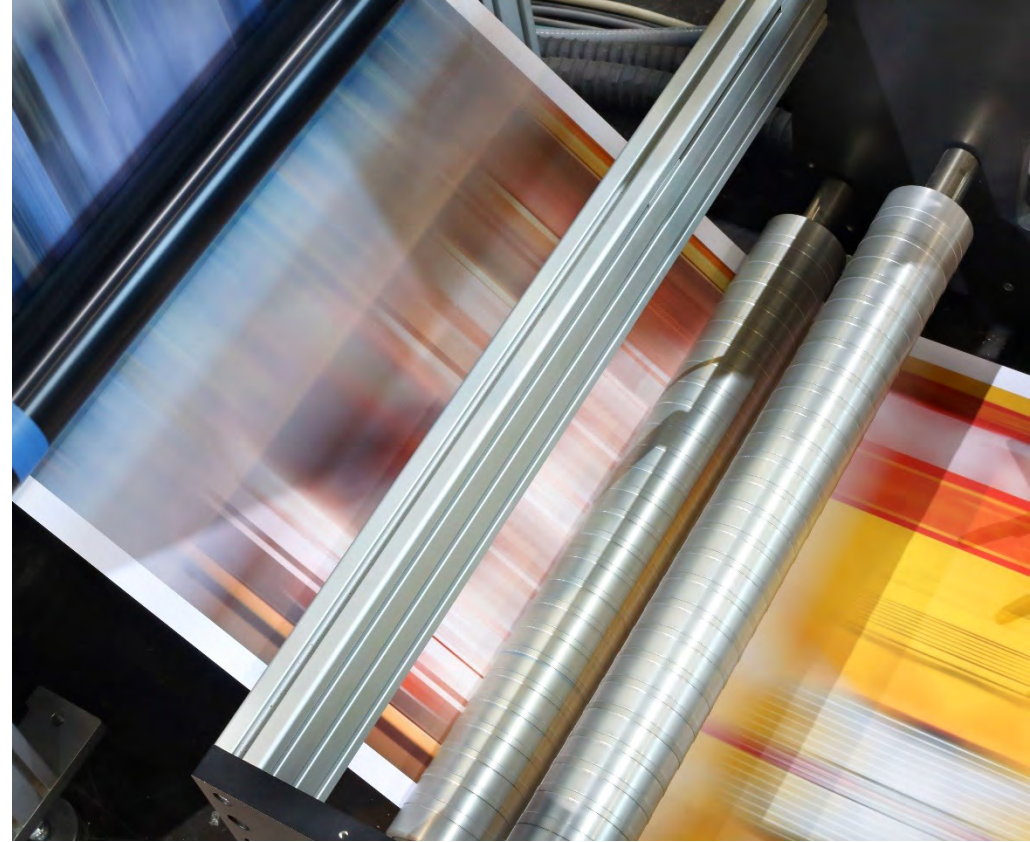
- Tubing for liquids or air
 - Air condition tubing
 - Hydraulic tubing
 - Fuel lines
- Mechanical application
 - Mechanical control rods
 - Landing skids for helicopters
 - Seats
 - Struts
- Rocket components
- Ammunition housings



INDUSTRIES AND MARKETS

Mechanical and process engineering

- Roller tubes
- Textile industry
- Air cylinder tubing
- Casings for hydraulic pumps
- Ferrules
- Heat exchanger components
- Air separation plant
- Connectors
- Waterways for fire ladders
- Masts for mobile lighting



INDUSTRIES AND MARKETS

Automotive

- Casing for stators
- Driveshafts
- Anti-vibration bushings
- Air springs

Electrical industry

- Heavy duty switches
- Busbars
- Copier drums
- Antennas
- Consumer electronics

Bicycle or motorcycle

- Shock absorber
- Handle Bars

Others

- Orthopedic technology
- Targets for Sputtering



Source: KTM homepage, Media Library, Mitterbauer H.



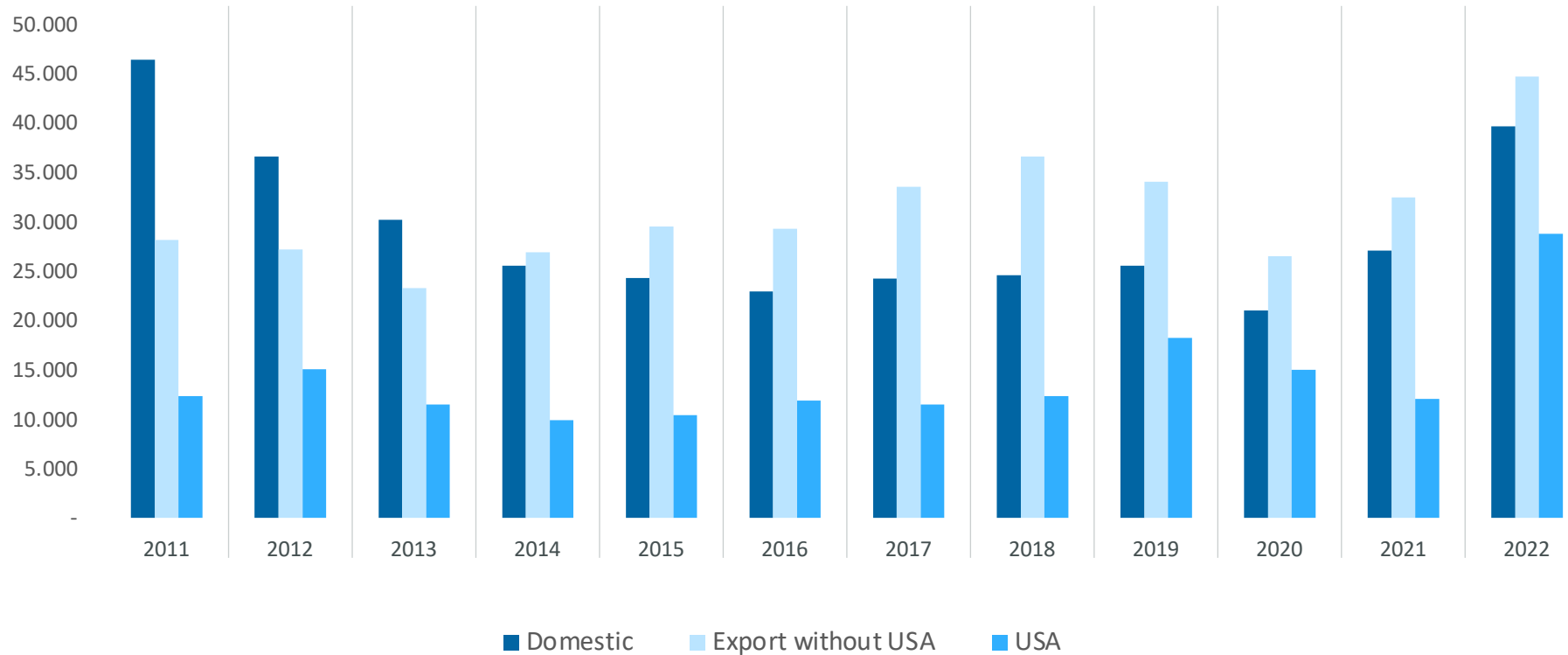
III. KEY FIGURES & SALES

KEY FIGURES

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Production	t	13.569	11.414	9.613	9.535	9.559	9.185	10.137	10.303	10.824	8.084	11.223	11.387
Sales	T €	86.850	78.792	64.937	62.274	64.176	64.059	69.247	73.454	84.322	62.464	71.508	113.115
Profit	T €	6.335	6.409	3.681	1.429	1.059	81	1.418	-1.150	2.334	-729	-1.216	4.200
Expenditure	T €	3.833	8.577	3.676	3.544	1.381	938	1.420	3.618	2.019	8.485	4.907	2.527
Equity ratio	%	42,60	50,09	53,03	52,17	56,41	57,01	65,03	65,48	66,84	69,30	54,54	54,08

SALES IN REGIONAL MARKETS (2011-2022)

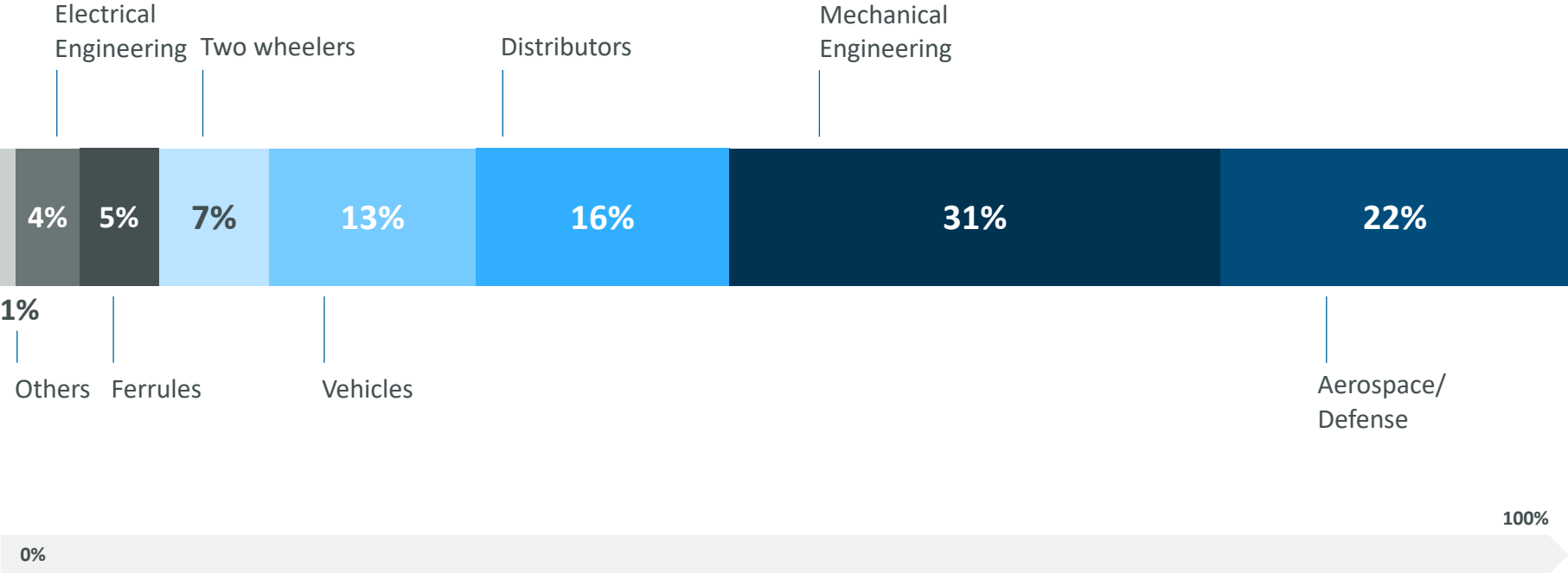
(2022 – preliminary numbers)



Mio. €

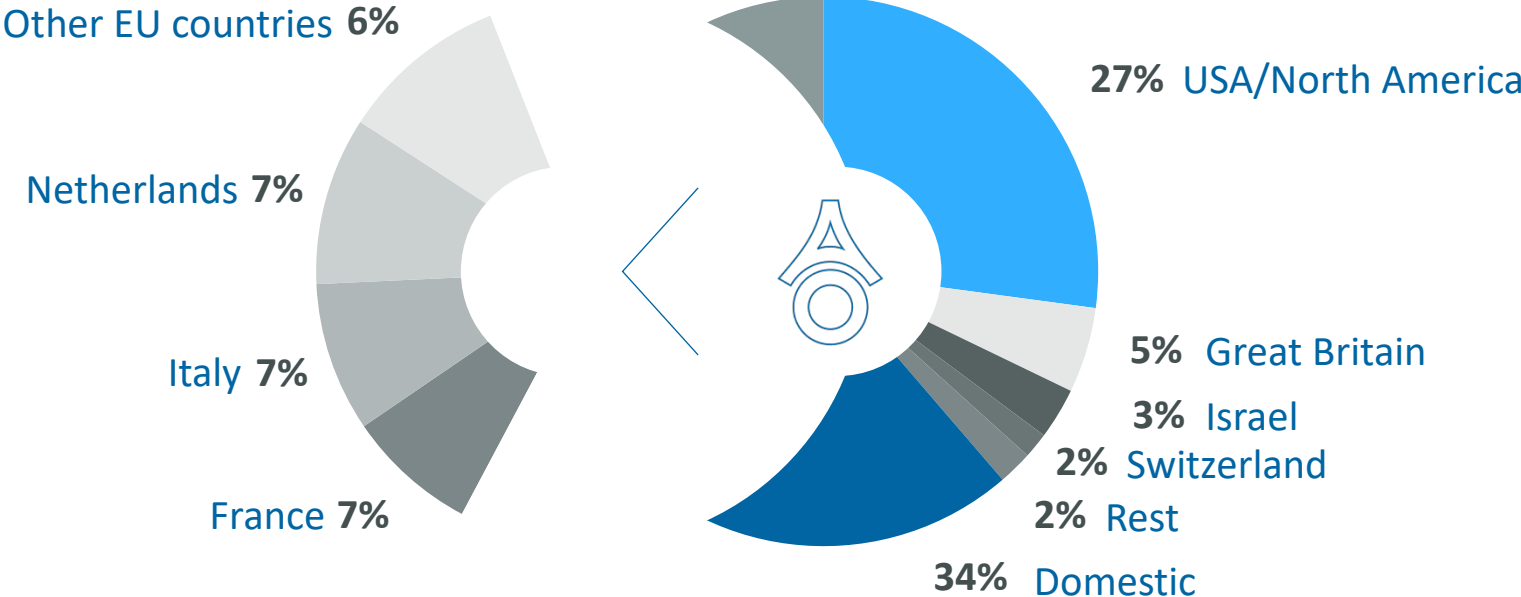
SALES BUSINESS SECTORS 2022

(preliminary numbers)



SALES COUNTRIES 2022

(preliminary numbers)



SALES COUNTRIES 2022

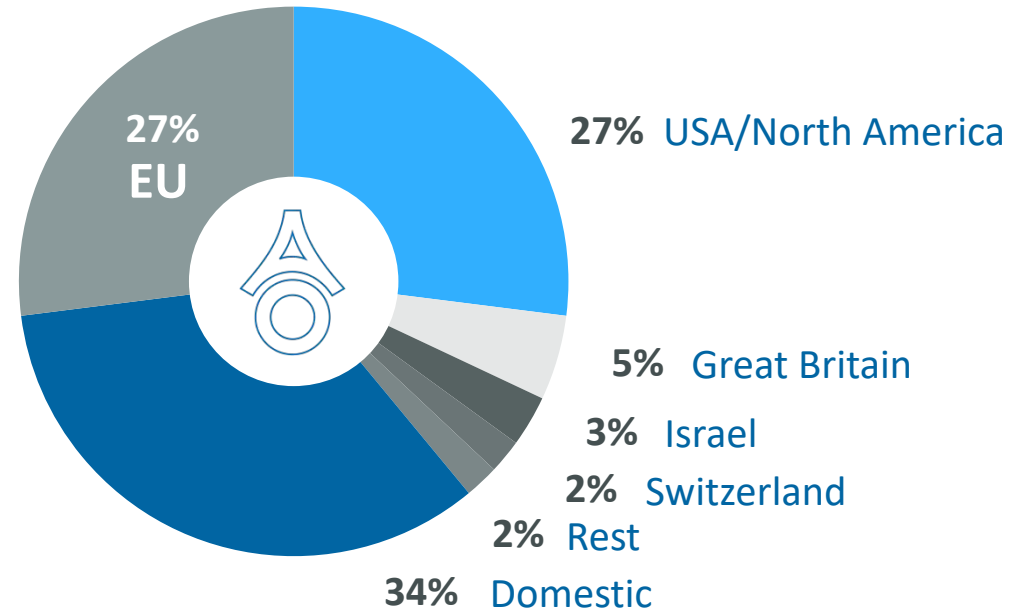
(preliminary numbers)

Other EU countries 6%

Netherlands 7%

Italy 7%

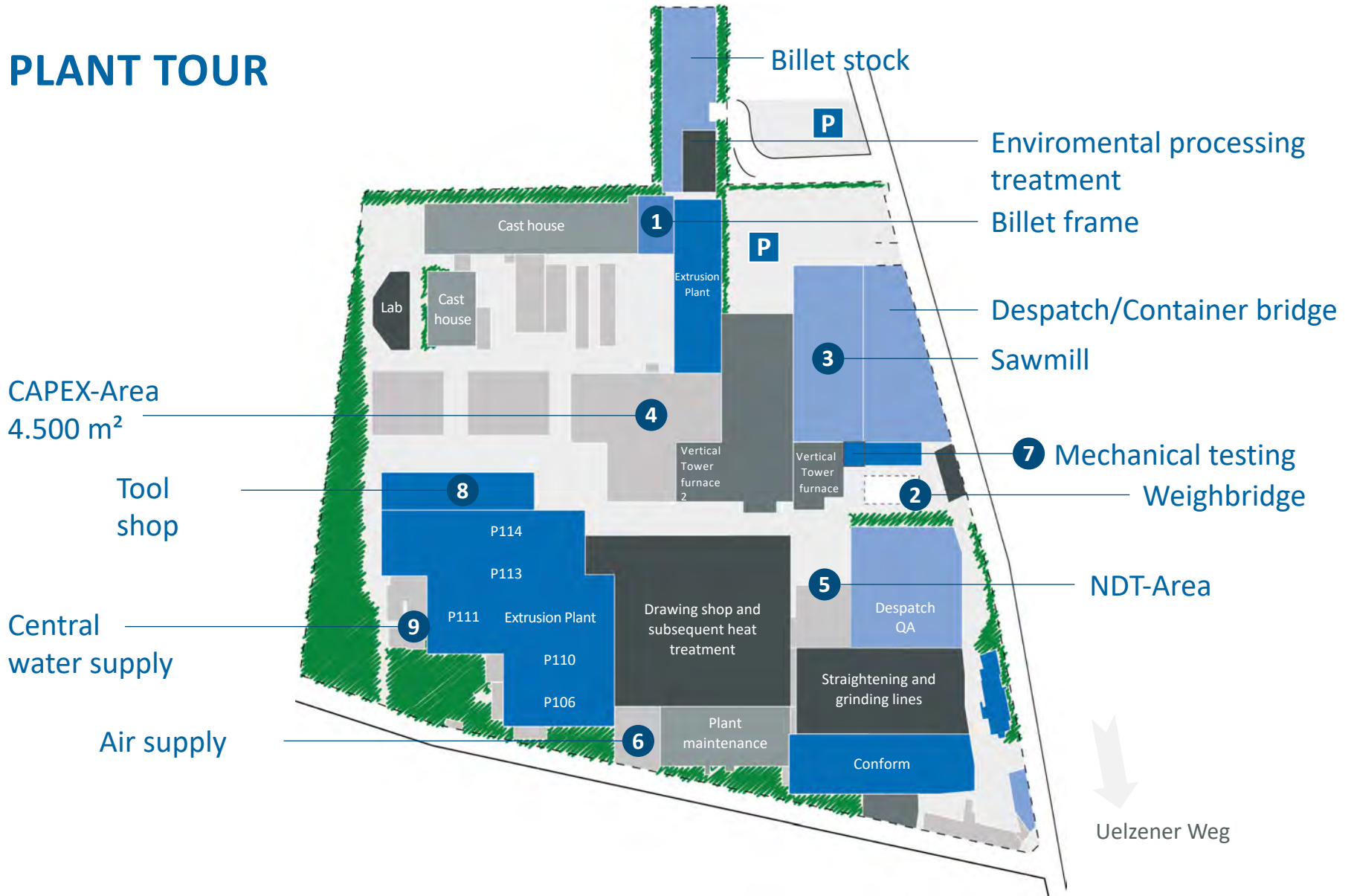
France 7%





IV. PLANT TOUR

PLANT TOUR



PROCESS EQUIPMENT

Cast house

- Two 12 t smelters
- Two 6 t smelters
- SNIF filter system and ceramic foam filter
- 16.600 t annual production

Homogenization

Two batch furnaces of 30 t each



PROCESS EQUIPMENT

Extrusion presses with piercer

	Container diameter
9 MN indirect	145 mm (P113)
25 MN direct	200 mm/250 mm(P110)
35 MN direct/ 40 MN indirect	250 mm (P114)
50 MN direct	360 mm/410 mm (P111)

Extrusion press without piercer

18 MN direct	200 mm (P108)
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PROCESS EQUIPMENT

Subsequent | Processing

- 60 t tube draw bench
- 30 t tube draw bench
- 10 t double tube draw
- Chain drawing bench
- 4 t double tube draw bench
- 4 straighteners
- 2 degreasing equipments
- 2 polishing lines
- Honing machine



PROCESS EQUIPMENT

Heat treatment

- Annealing and artificial ageing of up to 22 m long material
- Solution heat treatment with subsequent water quench
- Vertical tower furnace for material up to 13 m length



PROCESS EQUIPMENT

Conform

- Conform-Extrusion press (10 MN)
- Schumag-Continuous drawing bench
- Circumscribing circle diameter from 5 mm to 30 mm for solid and hollow profiles



PROCESS EQUIPMENT

Cut to length shop

- 6 semi-automatic cutting machines
- Deburring with brushes
- Automatic TIR measurement



TESTING EQUIPMENT

Laboratory & Metallurgy

- Optical microscope
- Scanning electron microscope
- Microanalysis
- Spectroscopy
- Macro etching
- 3D optical microscope
- DSC analysis



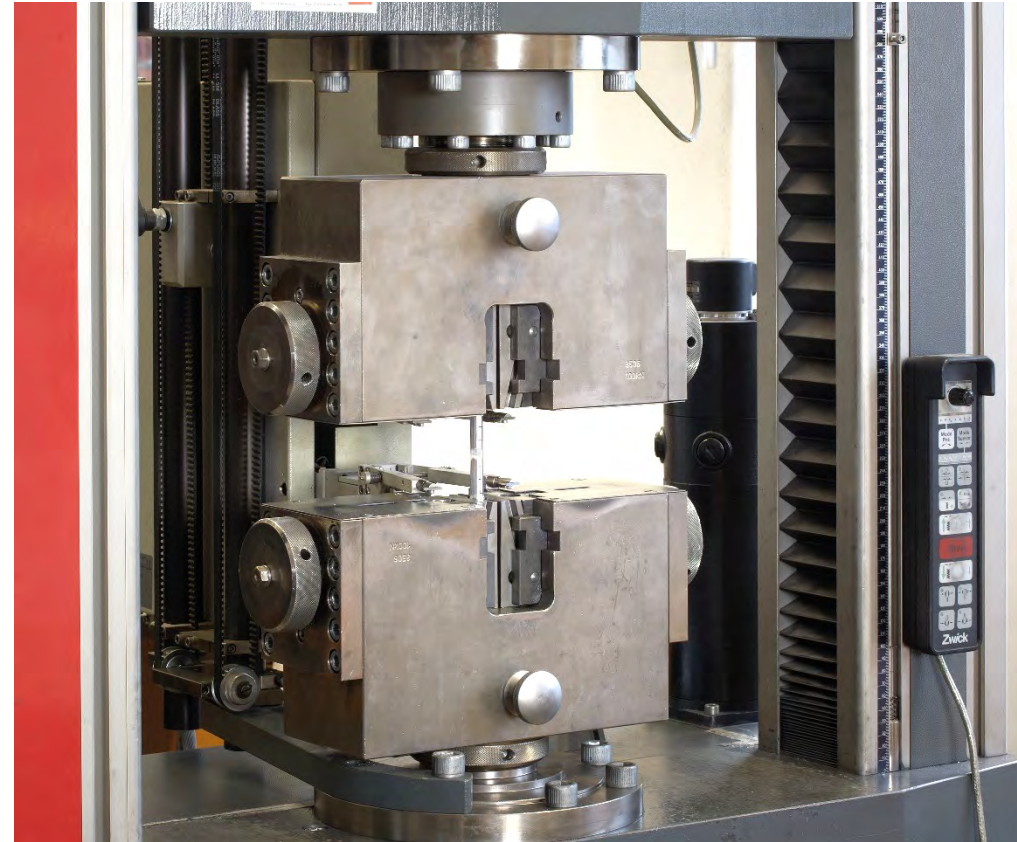
TESTING EQUIPMENT

Testing equipment

- Automatic tensile testing machine
- Different hardness testing

Non destructive testing (NDT):

- Ultrasonic inspection
- Eddy current inspection
- Electrical conductivity



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