



wieland

Wieland Overview

2022



From art and bell foundry to premium copper alloy products and innovative solutions

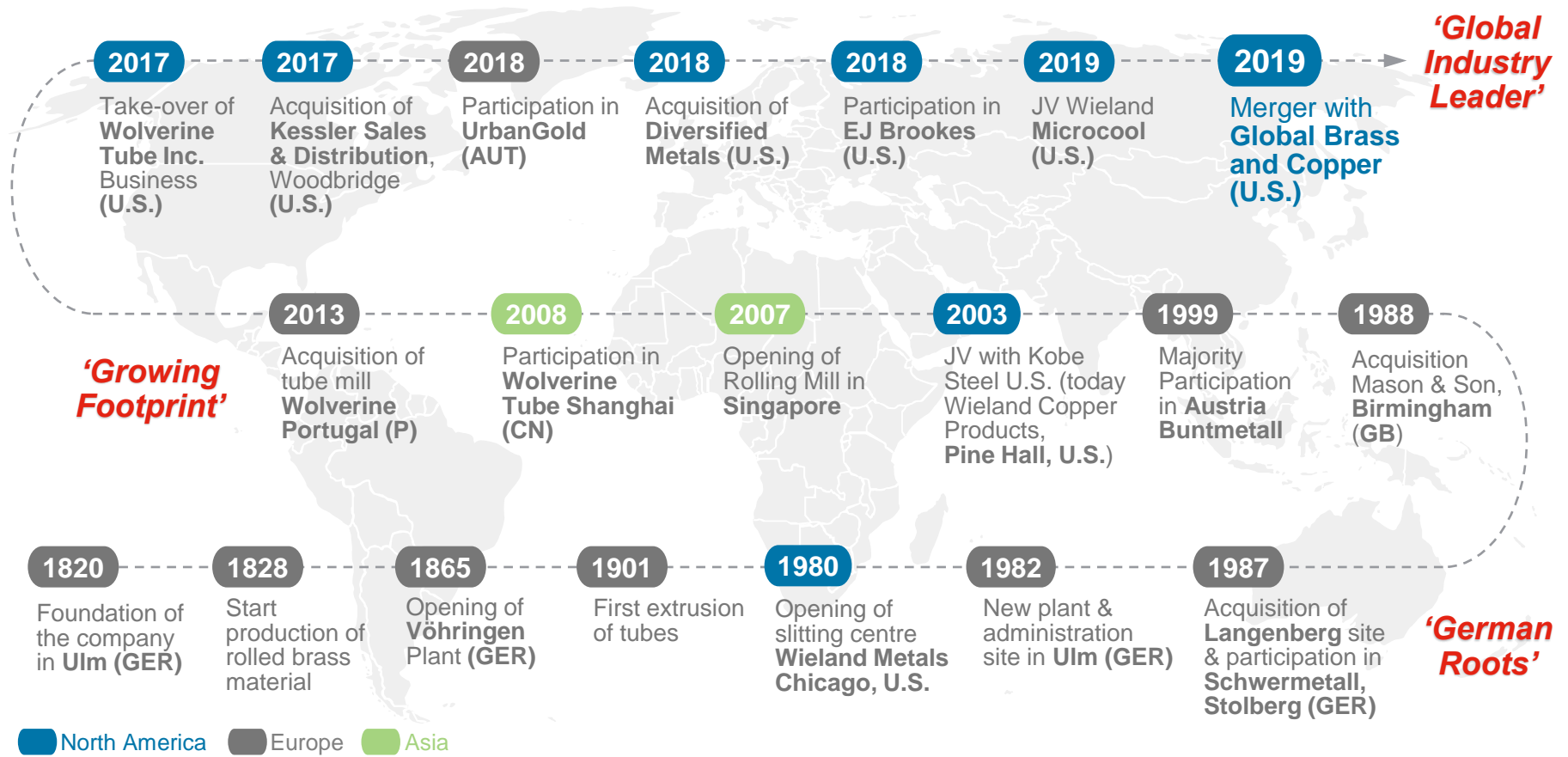
The Wieland Group has been offering its customers products made of copper and copper materials for over 200 years now. With a high level of customer centricity, its global presence and broad product portfolio, Wieland is “the” reliable partner in the B2B business. Copper is an essential material for many industries and a number of megatrends due to its excellent conductivity, formability and recyclability.



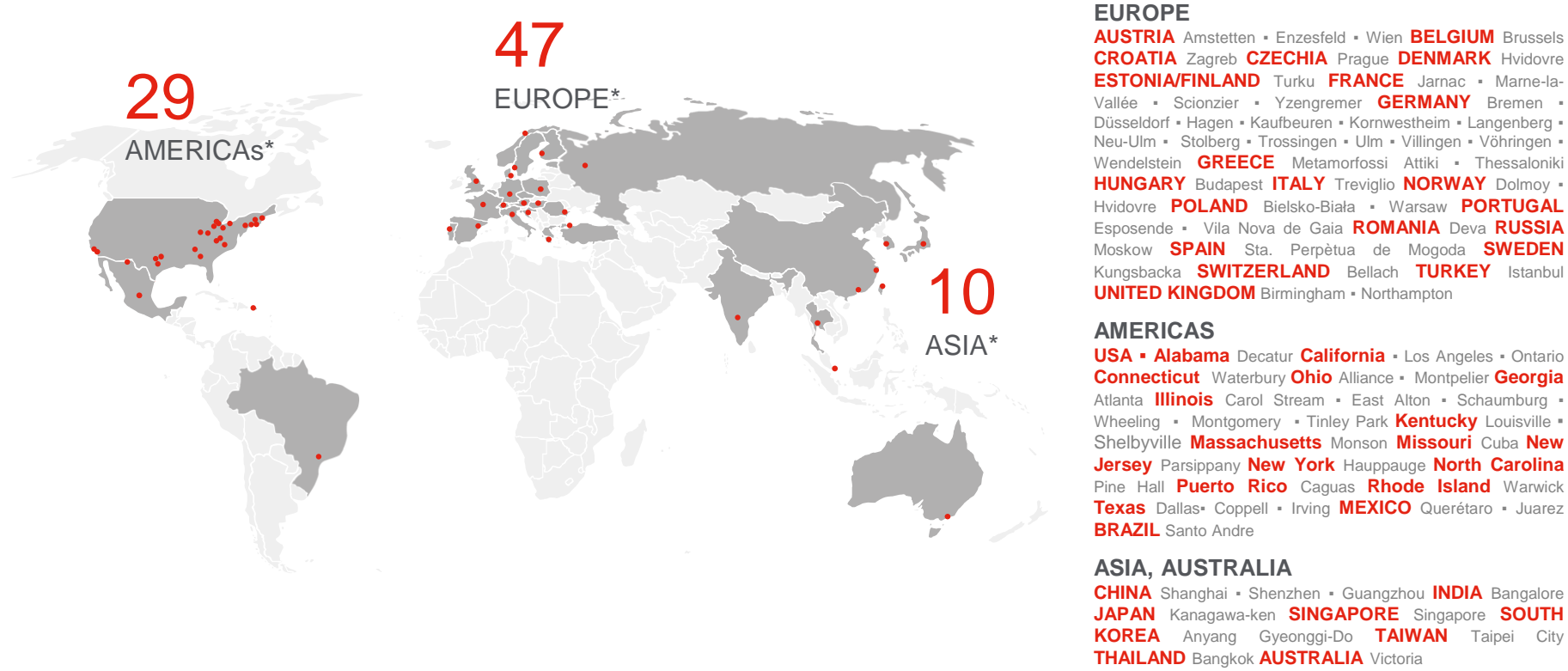
“Ever since, Wieland has been a family-owned business with a long-term orientation of its shareholders.”



A 200-year history of growth

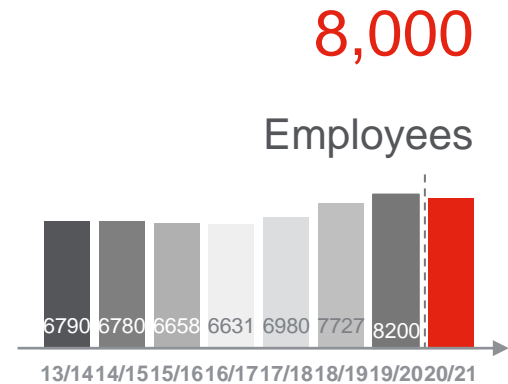
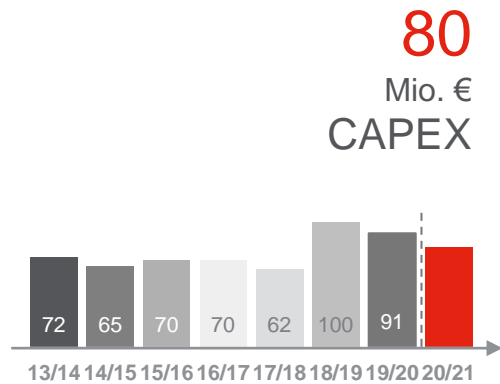
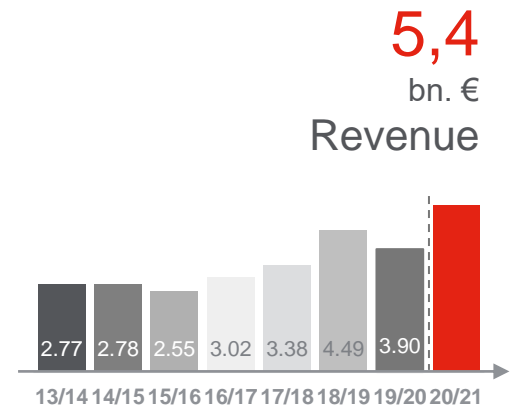
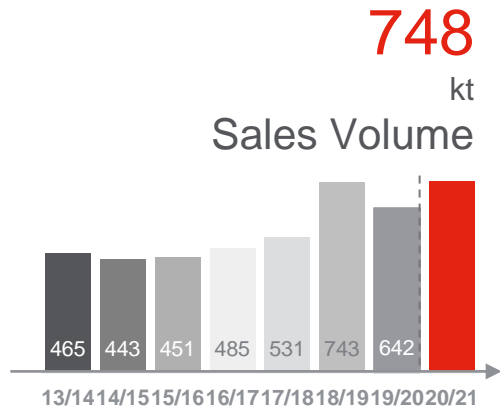


A Global Industry Leader



* Locations of production and service companies including sales offices and sales partners

Performance Overview



Wieland product portfolio

Strip and sheets

- We offer **strip of copper and copper alloys** such as brass, bronze, and high-performance alloys manufactured in a range of grades **from standard to special**, depending on the customer requirements. Surface refining, e.g., tinning and form milled strip, further rounds out our portfolio. In addition, we offer strip **aluminum in mill finish, painted and anodized** conditions.
- We supply customers in the **electronic, automotive, architectural and emerging** sectors.
- Production sites are located in **Asia, the USA, and Europe**



Rolled Products
Rolled Products North America
Wieland Metal Services

Rods, wire and tubes

- We offer a **diversified portfolio of customized extruded products** for various customer applications (e.g., copper wires, tubes, bars, sections)
- **We serve a wide range of focus industries** including automotive, construction, electrical engineering, or trade
- Production sites are located in **the USA and Europe**



Chase Brass
Extruded Products
Rolled Products North America
Wieland Metal Services

Finned tubes and heat exchangers

- We develop and produce **heat transfer solutions**
- We offer an extensive range of **high-performance tubes and heat exchangers** based on various materials (e.g., copper, copper alloys, aluminum, titanium)
- We serve **various applications** such as **air conditioning, refrigeration, heating**, process as well as machinery and plant technology
- Production sites in **Asia, the USA, and Europe**



Thermal Solutions

Slide bearings and components

- We develop and produce **rolled and turned slide bearings, precision turned parts, and roller bearing cages**
- Targets customers in the **automotive, machine construction**, as well as the **agricultural & construction machine industry**
- We develop **components for modern electric automotive drives and innovative battery systems**
- Production sites in **Europe**

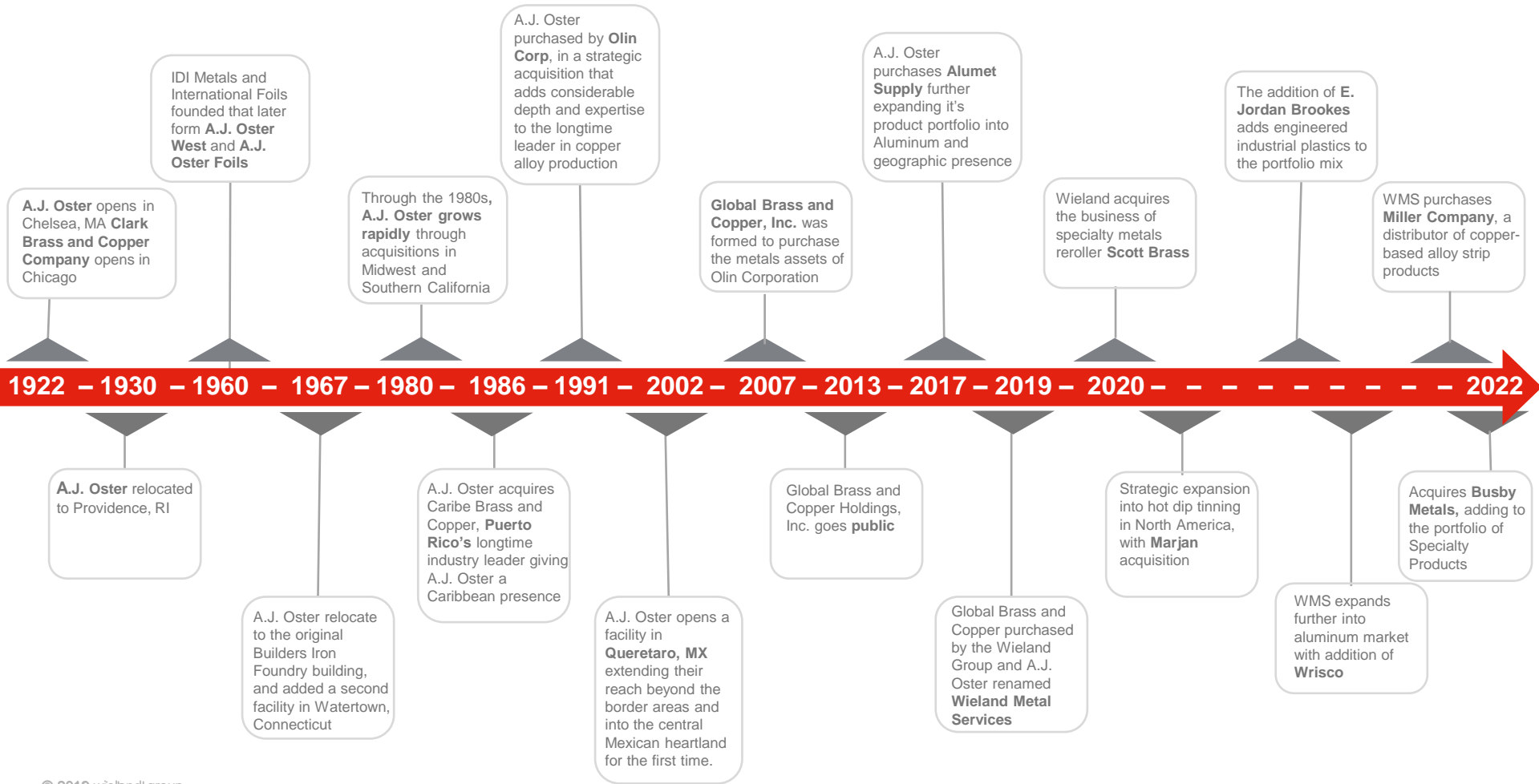


Engineered Products

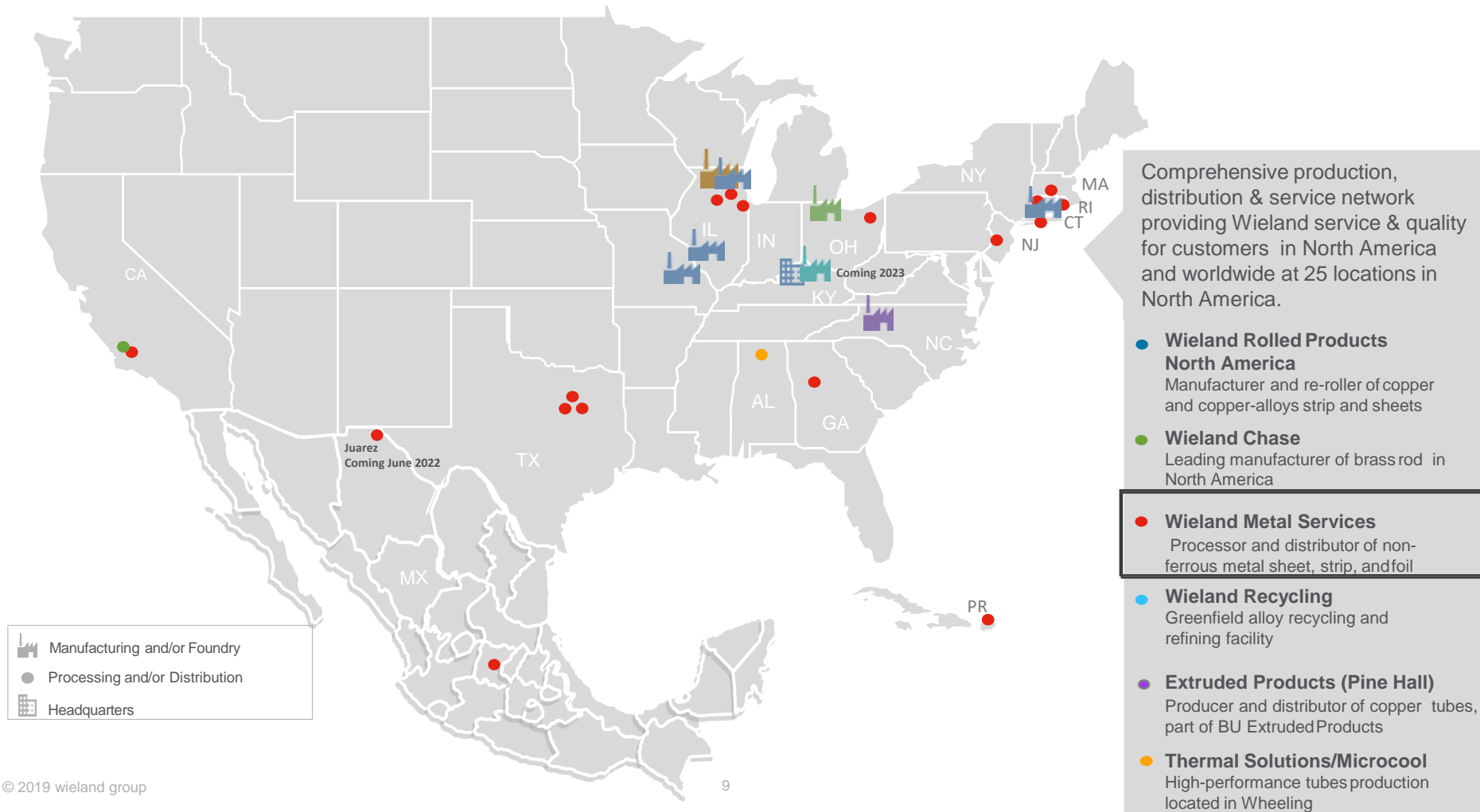


Wieland Metal Services

History Wieland Metal Services



Wieland US Locations



Overview of Wieland Business Units

| Extruded Products | Rolled Products | Engineered Products | Thermal Solutions | Wieland Chase | Wieland Rolled Products North America | Wieland Metal Services |
|------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|---------------------------------------|---|
| Rods, wire and tubes | Strip and sheets | Slide bearings and components | Finned tubes and heat exchangers | Brass rods | Strip, sheets, foil and welded tubes | Non-ferrous metal strip, sheet and foil |
| 1,920 Employees | 1,584 Employees | 396 Employees | 393 Employees | 306 Employees | 1,064 Employees | 448 Employees |
| 1,183 Million € sales | 1,195 Million € sales | 156 Million € sales | 319 Million € sales | 649 Million € sales | 806 Million € sales | 517 Million € sales |
| 23 Thousand tons sales quantity | 197 Thousand tons sales quantity | 6.6 Thousand tons sales quantity | 31 Thousand tons sales quantity | 100 Thousand tons sales quantity | 100 Thousand tons sales quantity | 66 Thousand tons sales quantity |
| 19 Locations | 12 Locations | 4 Locations | 6 Locations | 2 Locations | 5 Locations | 16 Locations |

Common Products

Strip



Foil



Sheet



Painted/Anodized Aluminum



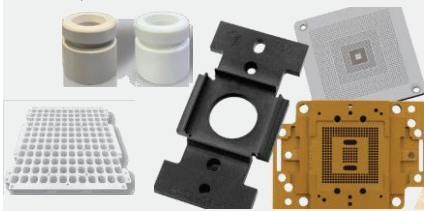
Rod and Bar



Tube



Specialty Polymers



Metals

Copper and Copper Alloys,
Aluminum, Aluminum Bronze/Nickel,
Nickel 400/500, HY 80/100,
Beryllium Copper, Copper Nickel Tin
Copper Silicon/Nickel,
Phosphor Bronze, Stainless Steel,
High Performance Plastics & etc....

Capabilities

Slitting



Tension Leveling



Traverse Winding



Coating/Painting



Bar Cutting



Cleaning



Tinning



Cut-to-Length



Blanking



CNC Machining



Toll Processing



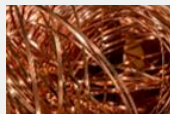
Supply Chain Management



Metallurgical Support



Scrap Buy Back Programs



General Capabilities

| Processing | Gauge | Width |
|--|---------------------|------------|
| Slitting/Coil | .00035”-.156” | .090”- 60” |
| Coating | .0007”-.020” | Up to 42” |
| Cleaning | .002”-.020” | Up to 36” |
| Traverse Winding | .005”-.062” | .2”- 2.5” |
| Cut-to-Length | .006”-.125” | .3”- 60” |
| HALT Tinning | .005”-.072” | .875”-10” |
| | | |
| Bar Cutting (Cu, Ni, Steel, Al-Bronze) | .25” – 24” diameter | |
| High Performance Plastic Cutting | 1.25”-2” diameter | |

HALT– Hot Air Level Tinning

- Commercial Coat 40-80 Micro Inches
- Medium Coat 100-250 Micro Inches
- Heavy Coat 200-300 Micro Inches

Traverse Winding

- Single head & multi-heads
- 500 to 2,000 pounds spool

Common Alloys

| Copper | Aluminum | Stainless | Specialty |
|---|--|---------------------------|---|
| Copper C1XX Series | 1000 Series | 300 Series | High Performance Plastics |
| Brass C2XX Series | 3000 Series - bare, painted or anodized | 400 Series | Metal Rod/Bar/Wire/Profiles |
| Leaded Brass C3XX Series | 5000 Series - bare, painted or anodized | 17-7 PH 41X (Martensitic) | Nickel 400 |
| Tin Brass C4XX Series | 6000 Series | | Nickel 500 |
| Phosphor Bronze C5XX Series | 7000 Series | | HY80 |
| Cupro Nickel/Nickel Silver C7XX Series | 8000 Series | | HY100 bar |
| High Performance | Clad - 3003/4047, 4004/3003/4004, & 4005/3003/4005 | | Beryllium Copper - Strip, Rod, Bar |
| | | | ToughMet® Spinodal (Copper Nickel Tin) |
| | | | Copper Silicon Copper Nickel Silicon |
| | | | Brass/Naval Brass |
| | | | Aluminum Nickel Bronze Aluminum Silicon Bronze |

Global Business Units utilize Wieland Metal Service as North American conduit...

Rolled Products



Engineered Products



Wieland Metal Services



Thermal Solutions



Empowering Success.

