

FORGING VALUES

IMPROVEMENT PASSION
COURAGE GROUP SPIRIT
PEOPLE CUSTOMER SUCCESS

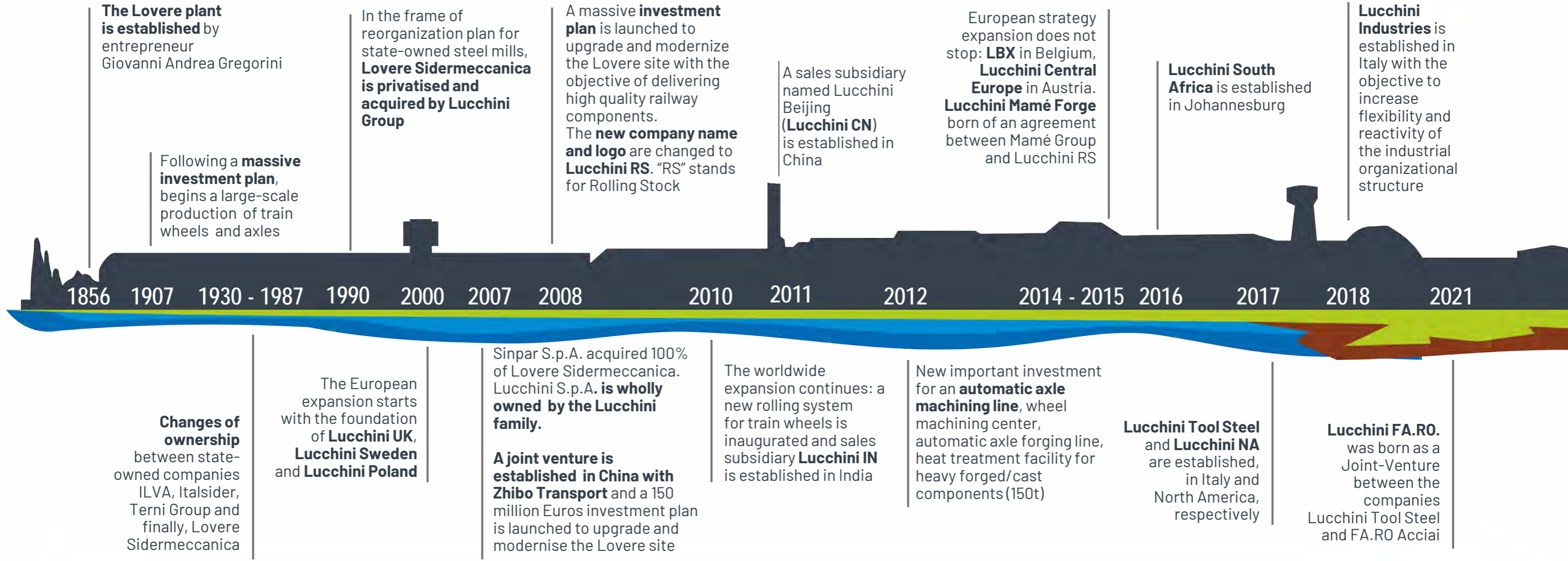


GROUP
LUCCHINIRS

LOOK BEYOND



THE GROUP: MILESTONES



THE GROUP: OUR VISION

The global and reliable **Partner** for the sustainable progress of mobility and industry. **Passion**, talent and creativity for advanced **Customer-orientated solutions**.

ALLinONE

Integrated production from furnace to final products



~2,500 people globally



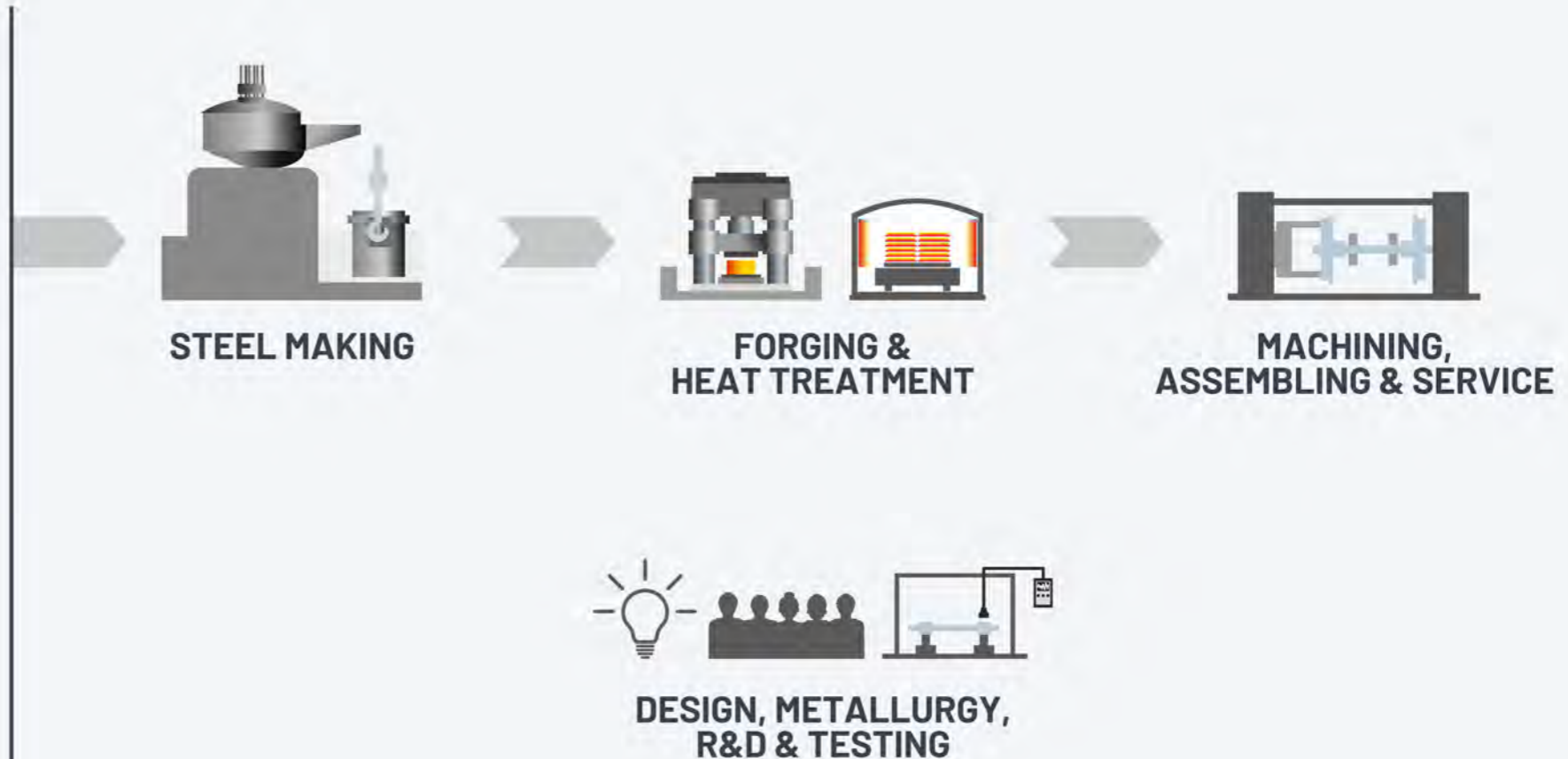
20 operation and maintenance facilities

IRONCLAD SUPPLY RESILIENCE



The Lucchini RS Group integrated production facilities guarantee:

- full product traceability
- OTD adherence
- production flexibility
- shorter lead times
- buffer stock availability.



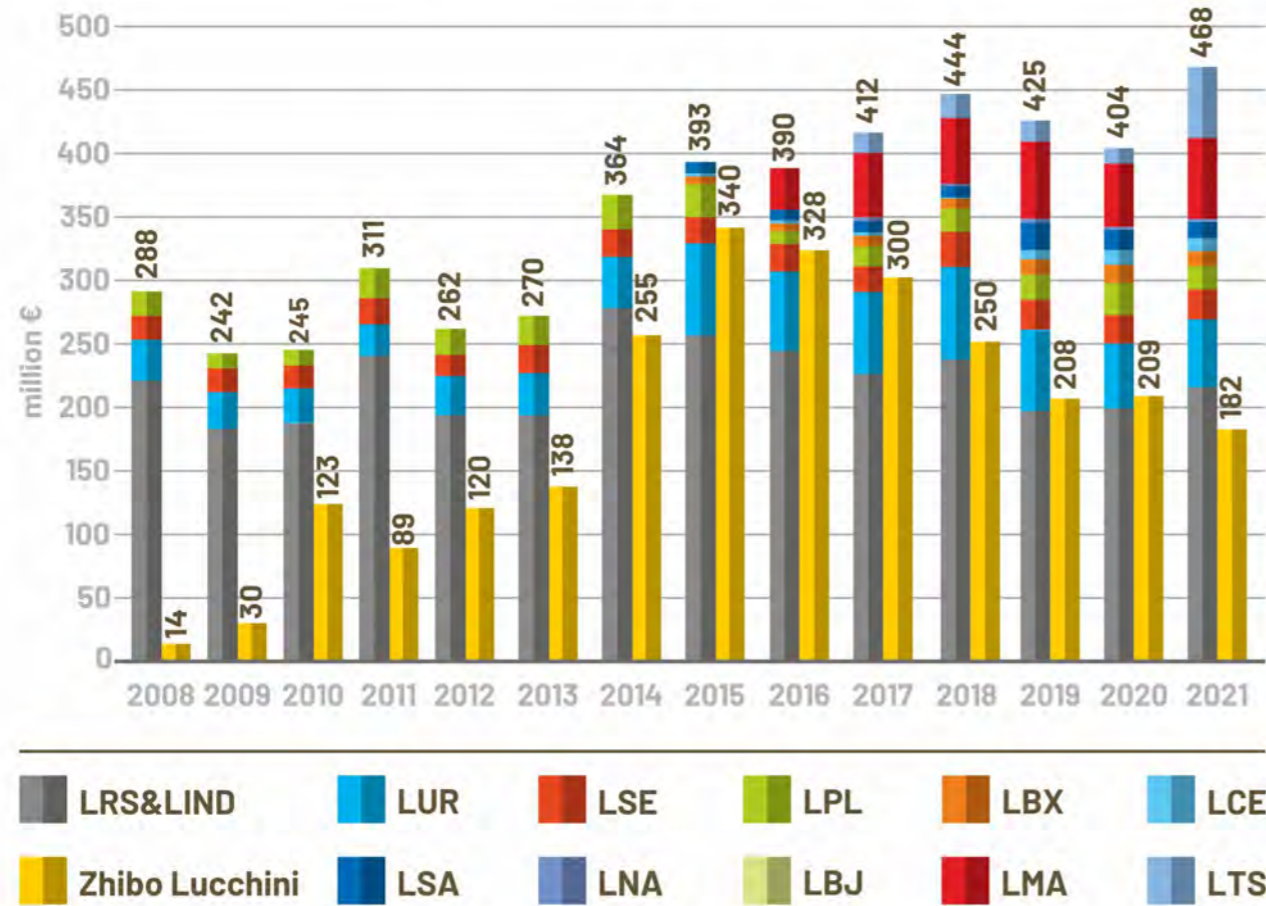
THE GROUP: MAIN DIVISIONS



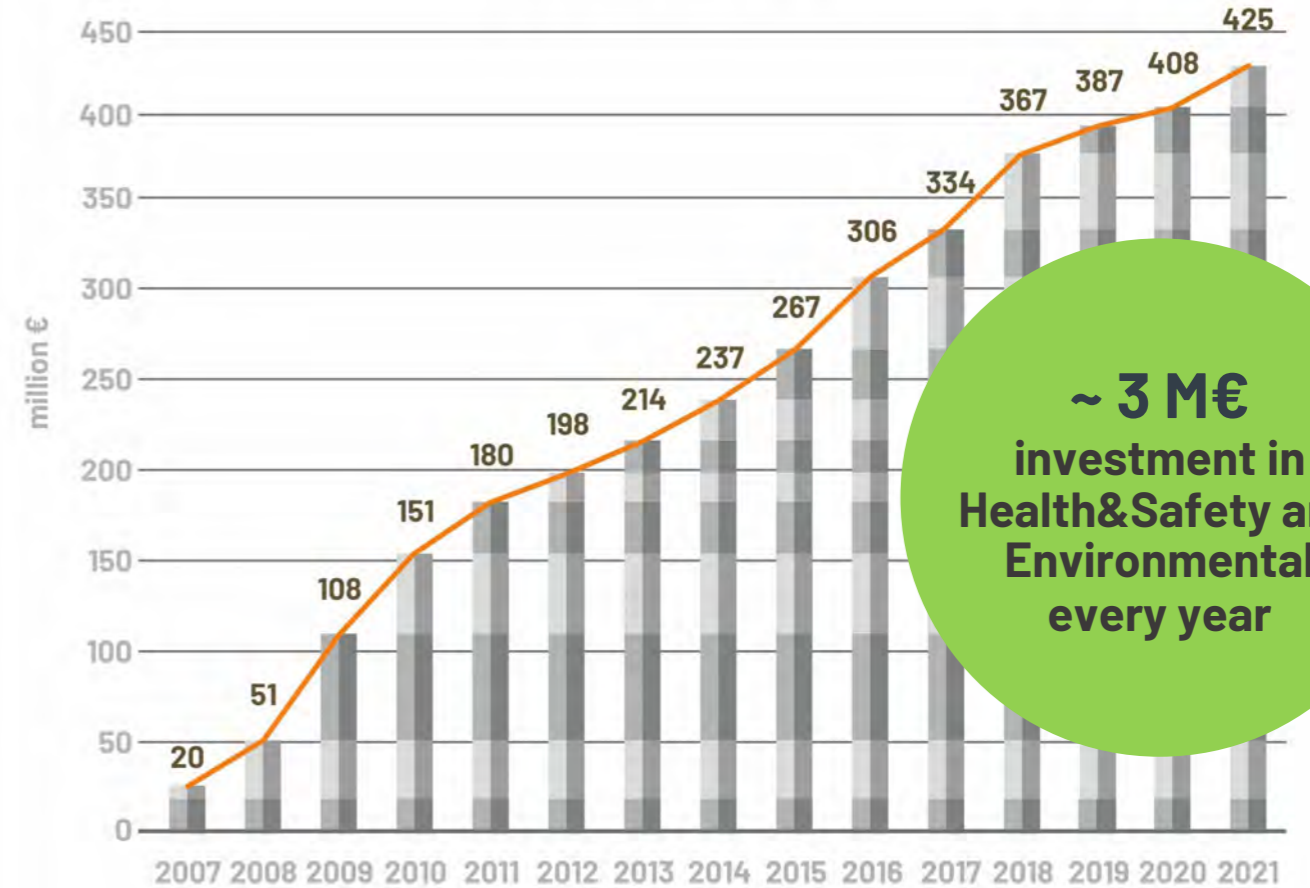
THE GROUP: FINANCIAL KEY DATA



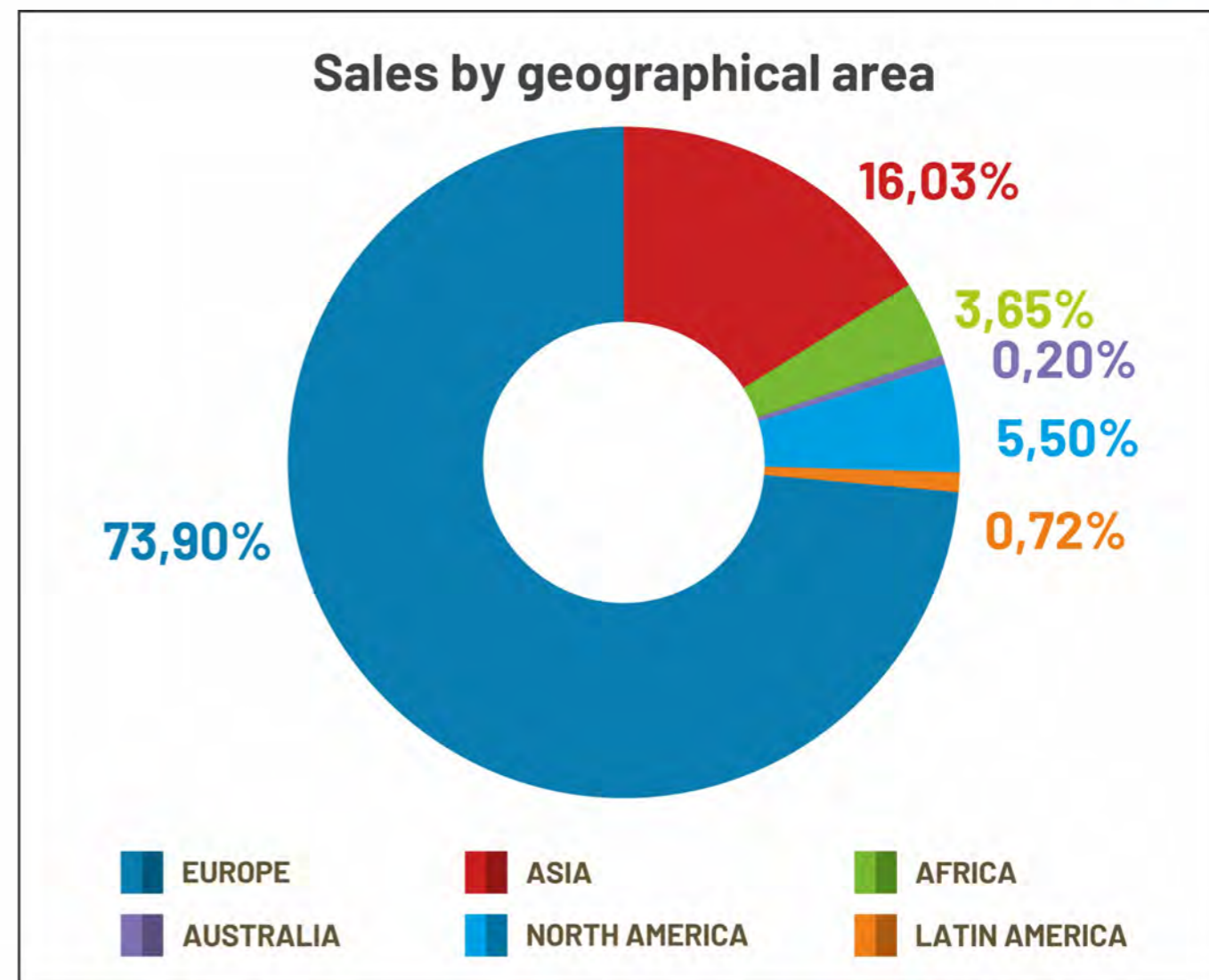
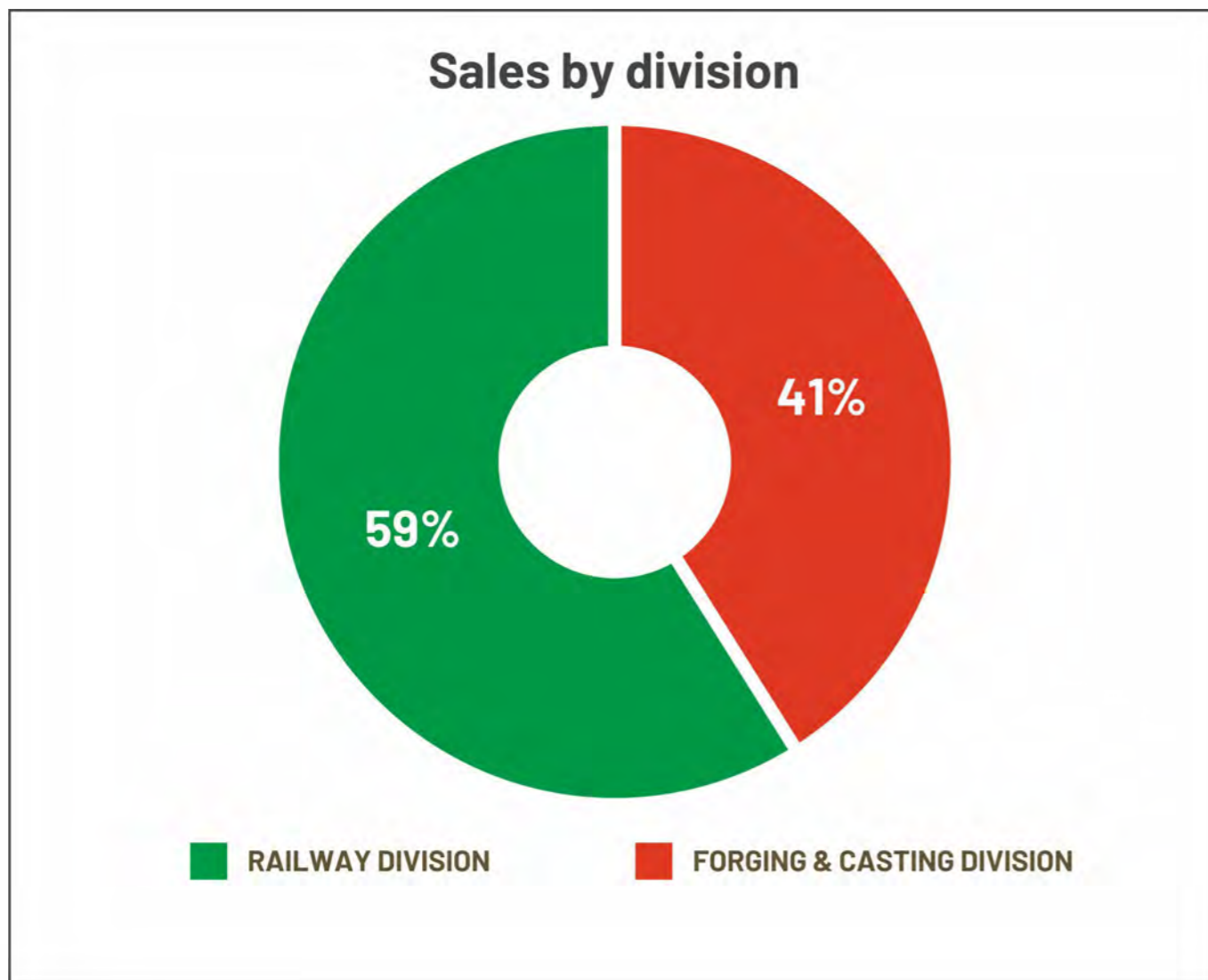
Consolidated Turnover



Investments



THE GROUP: FINANCIAL KEY DATA



FORGING VALUES IN RAILWAY SOLUTIONS

IMPROVEMENT PASSION
COURAGE GROUP SPIRIT
PEOPLE CUSTOMER SUCCESS

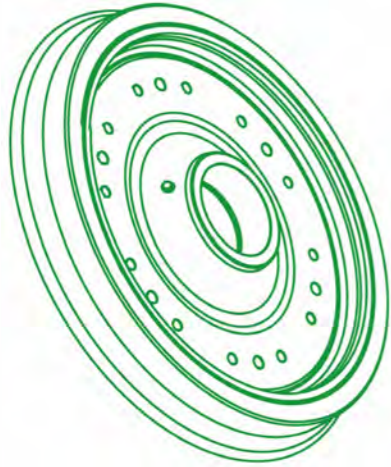


GROUP
LUCCHINIRS

LOOK BEYOND

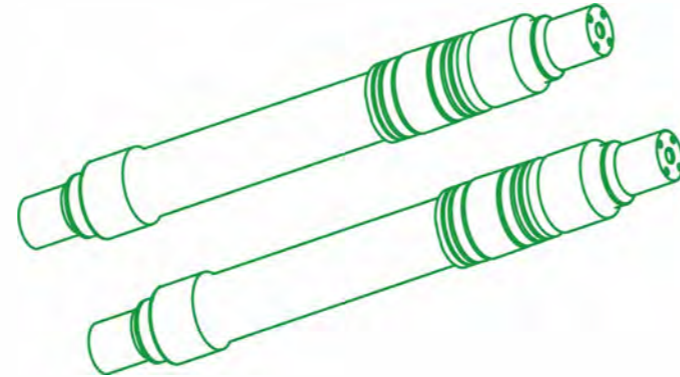
WHEELS THAT KEEP THE WORLD ON TRACK

WHEELS



Up to
260,000
per year

AXLES



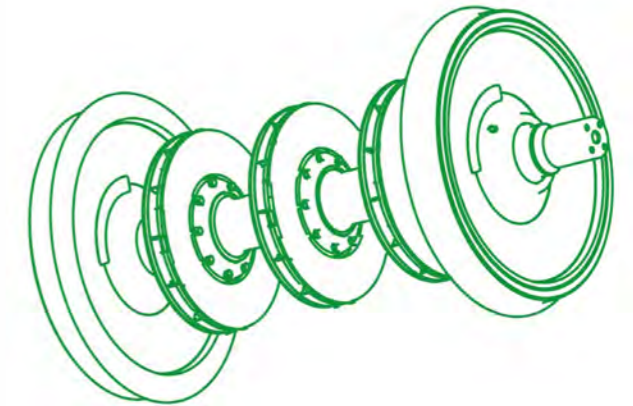
Up to
40,000
per year

TYRES



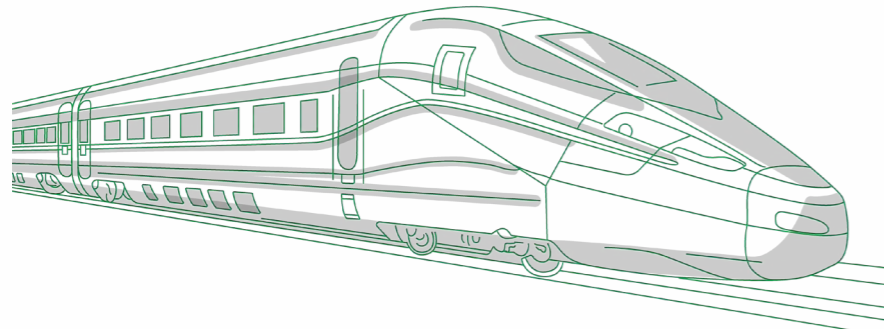
Up to
15,000
per year

WHEELSETS

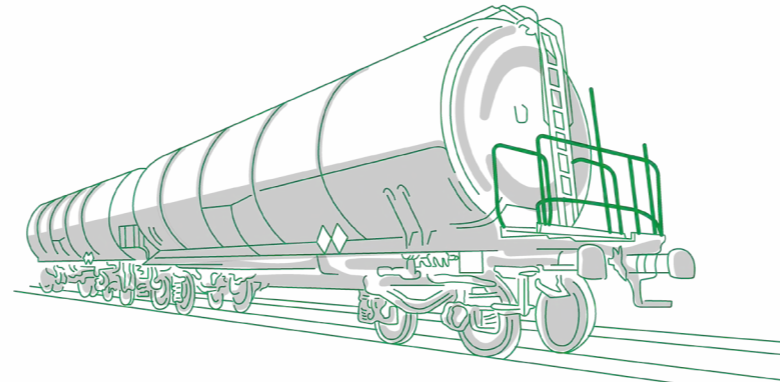


Up to
12,000
per year

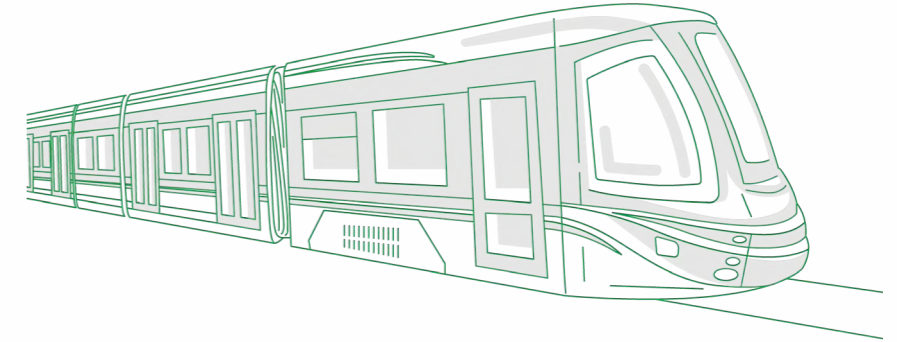
WHERE WE MAKE THE DIFFERENCE



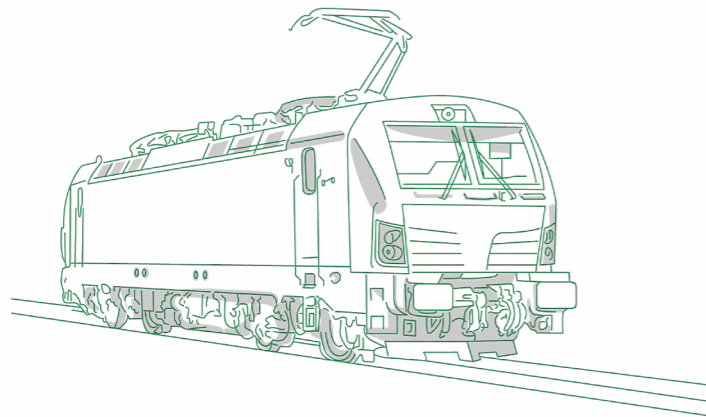
HIGH SPEED



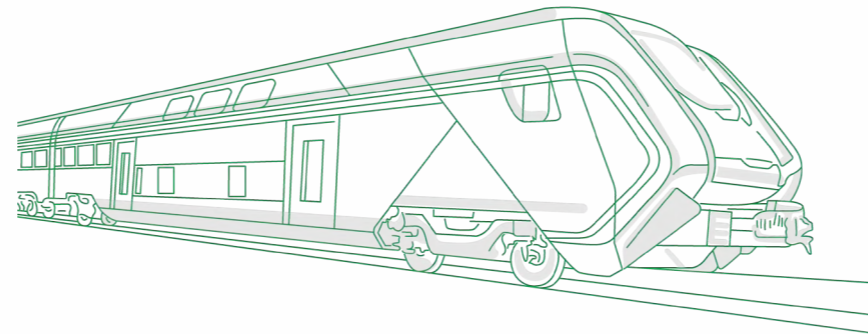
FREIGHT



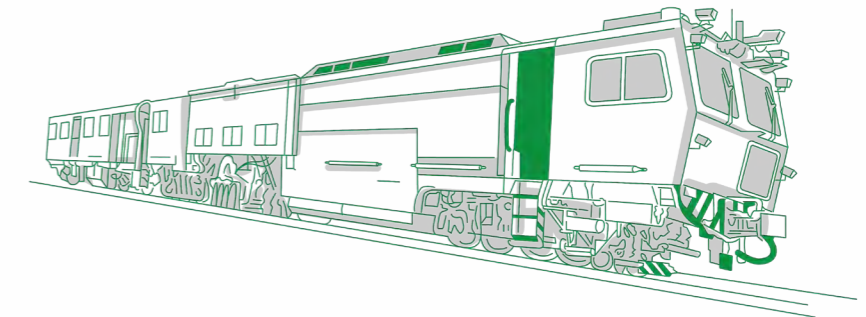
LIGHT RAIL & METRO



LOCOMOTIVE

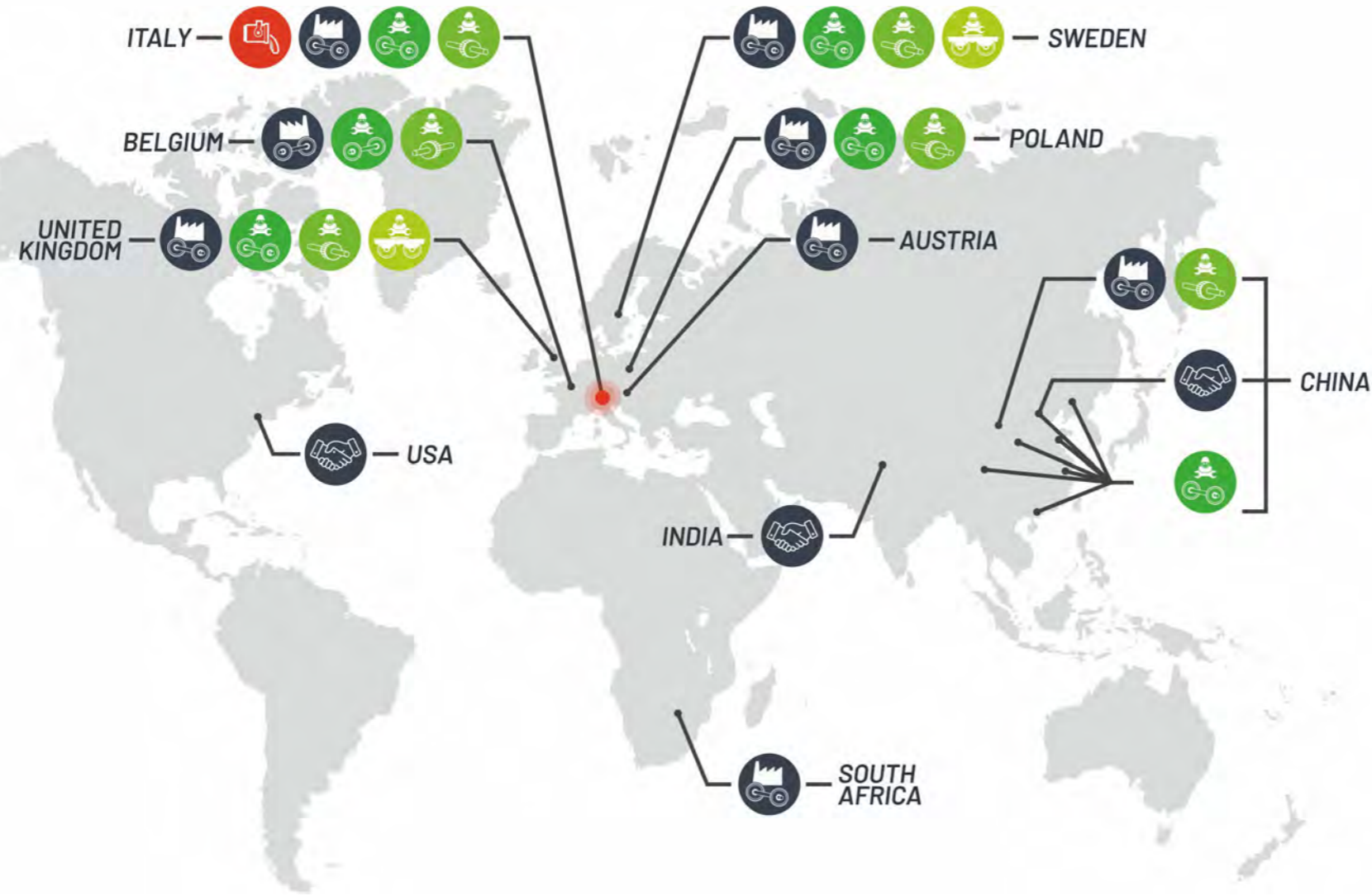


PASSENGER









ON-TRACK MACHINE

SERVING GLOBALLY



Legenda

-  Steel mill and hot works
-  Production site
-  Commercial branch office
-  Wheelset maintenance center
-  Gearbox maintenance center
-  Bogie maintenance center



CONDITION BASED MAINTENANCE

Our AI-powered Smartset[®] Diagnostic solutions allow OEMs and train operators to **identify the suitable NDT inspection intervals** based on the unique characteristics of the service condition, bringing down maintenance stoppages. Load spectra can also be used for **wheelset design validation**.

SMARTSET LOAD[®]



REDUCE
MAINTENANCE
COST



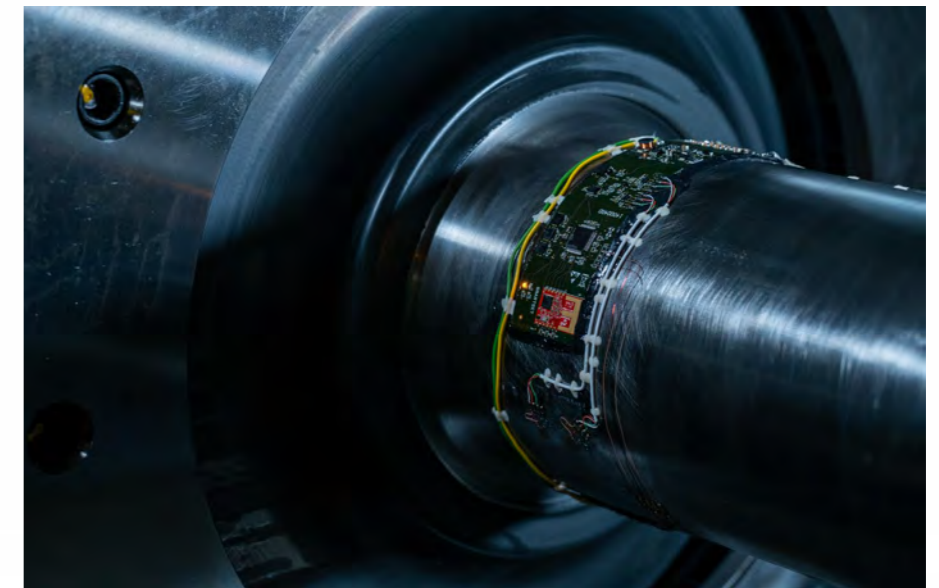
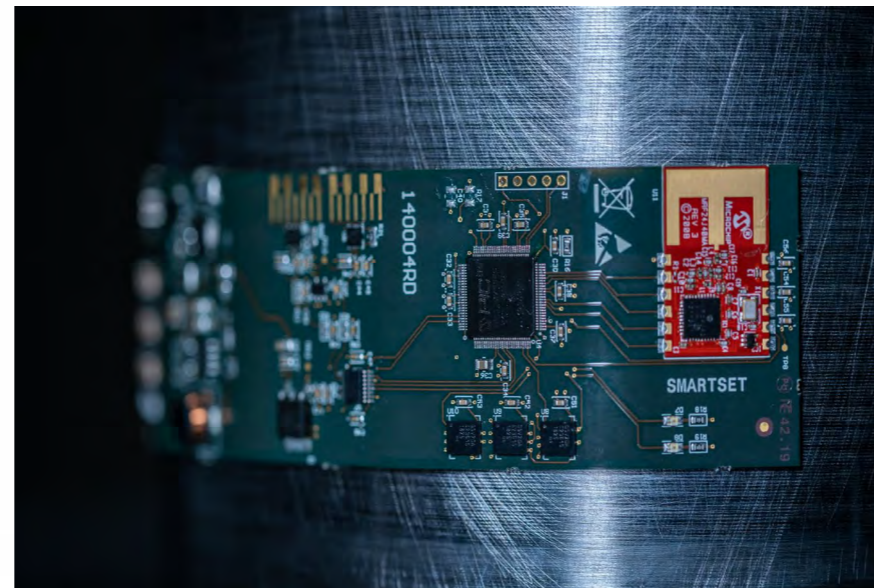
BOOST
ROI



IMPROVE
RAILWAY
SAFETY



TRACK
INSPECTION
ALERT





| VALUE IN

DURABILITY

SUPERIOR MATERIAL

Complete range of proprietary steel grades with specific features to improve wheel performance and properties.

UPLOS[®]

BEST FOR

Improvement within current standards

MARKETS

Freight Wagons,
Mass Transit,
Light Rail Vehicles
Metro, Locomotives

REF. STANDARDS

EN, AAR, JIS, GOST

SUPERLOS[®]

BEST FOR

Severe environmental and loading conditions

MARKETS

High Speed,
Heavy Haul

REF. STANDARDS

EN, BS, High Speed in China

ARCTICLOS[®]

BEST FOR

Applications for Nordic and freezing environments

MARKETS

High Speed,
Heavy Haul

REF. STANDARDS

EN

SANDLOS[®]

BEST FOR

Applications for desert environments

MARKETS

High Speed,
Heavy Haul

REF. STANDARDS

AAR

HYPERLOS[®]

BEST FOR

Applications with tread-braked wheels

MARKETS

High Speed,
Freight wagons

REF. STANDARDS

EN



| VALUE IN

SAFETY BOOSTING SAFETY



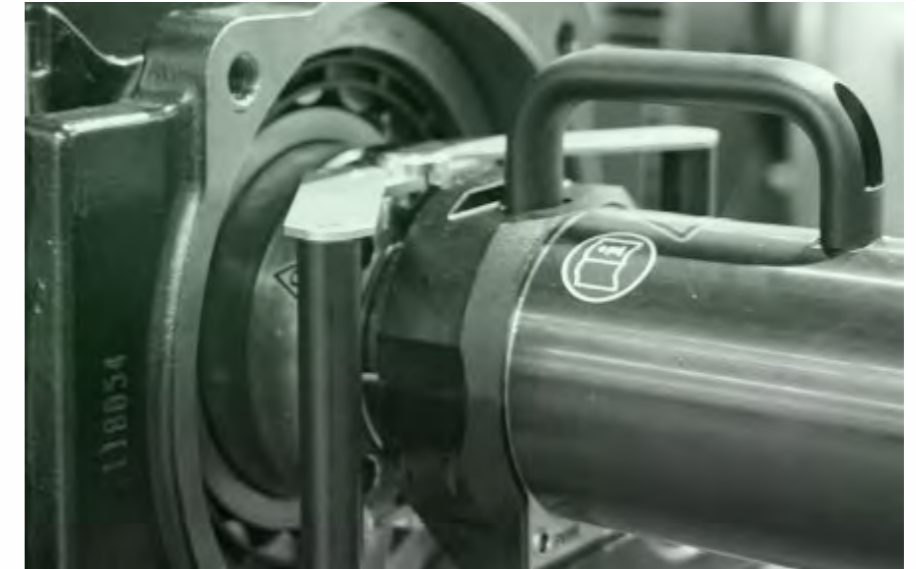
LURSAK®

Special coating system to protect the railway axle against corrosion and damage from ballast impact



LURSHELL®

Anti-impact shell for the axle, easily removed and remounted during periodical inspections



SAMT PROBE

Ultrasonic inspection probe for solid axle. The blind hole allows

- automatic and reliable inspection
- to reduce inspection time - no need to disassemble the wheelset from the train



| VALUE IN

DESIGN ADVANCED DESIGN



RESILIENT WHEEL

- Modular rubber components to meet customised design requirements
- Simplified maintenance and improved comfort
- Tyre steel grades are optimized to reduce wear and RCF



LIMOSET®

- Innovative portal axle design for low floor LRVs
- Modularity grants easy assembly, disassembly and inspection
- Total Life Cycle Cost is reduced



SURA®

Thermostable (i.e. “low-stress”) wheels to limit deformations and internal stresses caused by thermal loads during tread braking



| VALUE IN

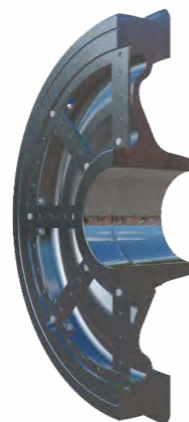
SILENCE NOISE REDUCTION



REDUCE TOTAL ROLLING NOISE



ELIMINATE CURVE SQUEAL



SYOPE SPOKES[®]

- Reusable
- Easy to assembly
- Able to withstand high temperatures (500°C) caused by excessive braking



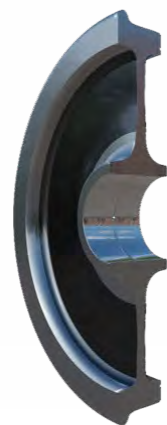
SYOPE RING[®]

- No screws for damper fixing
- Low weight
- Cost-effective solution



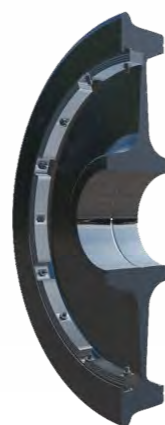
SYOPE LAYERS[®]

- Reusable
- Easy to assembly



SYOPE PANEL[®]

- No modification of the wheel original geometry
- No screws for damper fixing
- Low weight



SYOPE BLOCKS[®]

- Reusable
- Easy to assembly



SYOPE BRAW[®]

- No modification of the wheel original geometry
- No screws for damper fixing
- Low weight
- Efficient against curve noise



| VALUE IN

RELIABILITY TOTAL WHEELSET CARE





| VALUE IN

TRACEABILITY

SUSTAINABLE AND RESILIENT SUPPLY CHAIN



G-Local support with service centers all over the world.



Green ID document to report the Data of the exact Carbon Footprint of a product in accordance with ISO Standard 14067:2018.



Reduced lead time thanks to a local buffer stock creation and just in time delivery service.



| VALUE IN

TESTING

TESTING AND VALIDATION



FULL-SCALE VALIDATION

- Full-scale fatigue test on wheels and axles
- Crack propagation tests
- Structural tests on wheels
- Residual stress measurements on wheels and axles
- Modal and acoustic tests on wheels

“BU300”

- A full-scale roller rig for railway wheelset
- The closest simulation to real-life service of the train (able to reproduce straight and curving rolling conditions up to a speed of 300 km/h)

ACCREDITATION

- UNI CEI EN ISO/IEC 17025.

MAIN COMPANY CERTIFICATION



1. IRIS
2. AAR M-1003
3. ISO 14001
4. ISO 45001
5. ISO 50001
6. ISO 9001
7. RISAS
8. VPI
9. ECM EU 2019/779
10. ISO 3834-2 + EN 15085-2
11. Regulation (UE) 333/2011

FORGING VALUES

IMPROVEMENT PASSION
COURAGE GROUP SPIRIT
PEOPLE CUSTOMER SUCCESS



www.lucchinirs.com

LOOK BEYOND

