

# Metso

Asia Pacific

## Regional capability statement

Minerals and metals



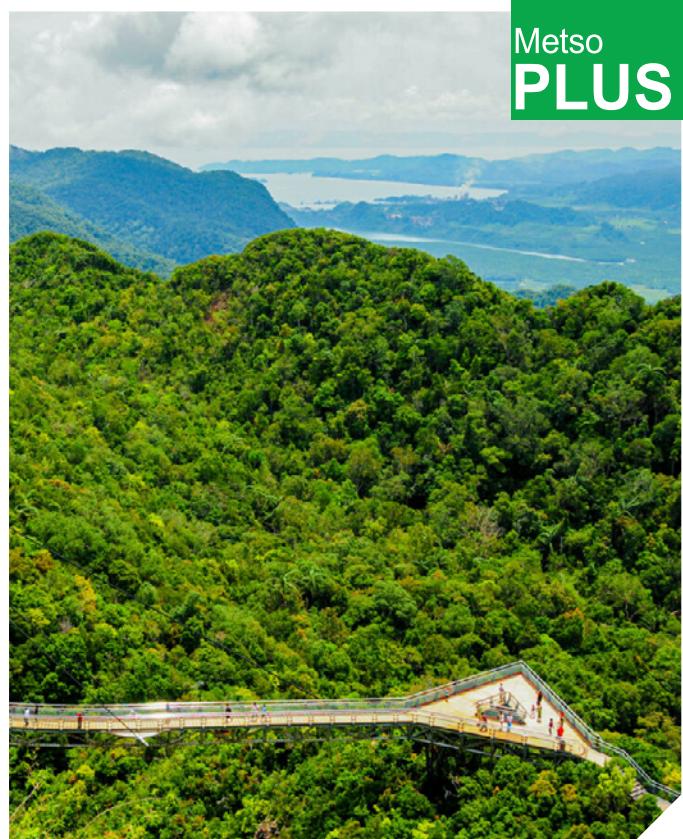
## Global leader with extensive local presence

Metso is a frontrunner in sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally.

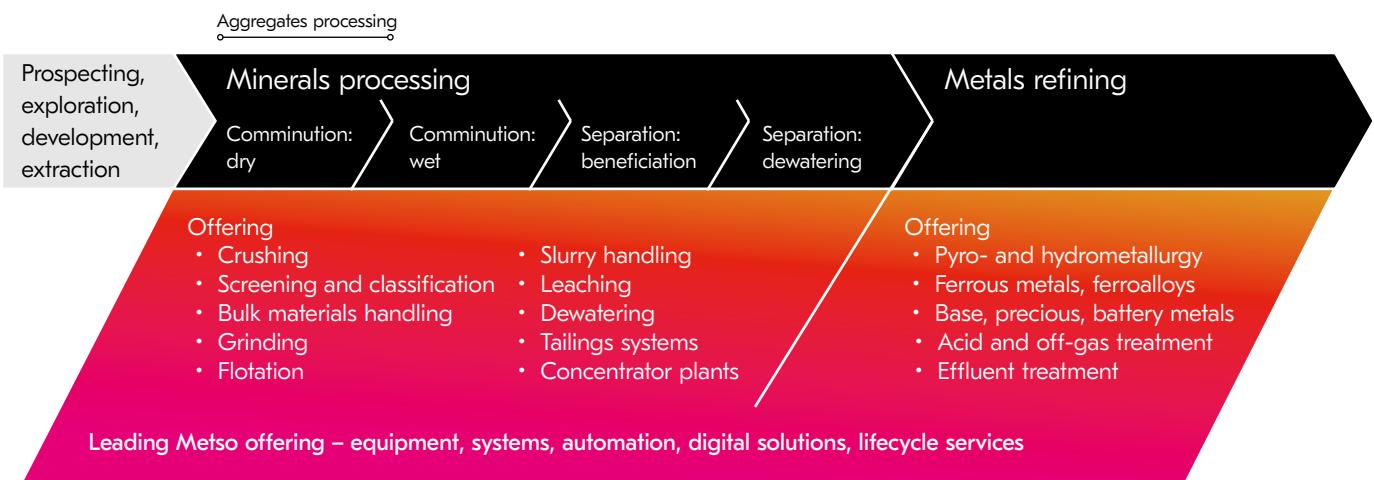
Metso's vision is to be our customers' number one choice for sustainable use of earth's natural resources.

Metso in Asia Pacific covers the whole value chain from ore to refined metals. We supply not only individual equipment and technologies, but all integrated solutions to design, deliver, maintain and service complete plants through all stages of their lifecycle.

Every day, more than 900 processing plants in Asia Pacific rely on Metso technologies.



# Full offering from ore to metal



## Our people

For well over 60 years in Asia Pacific, we have worked resolutely to earn our reputation. Our people will always go the extra mile to ensure we meet and exceed expectations. We have some of the best minds in the business here and we understand exactly what it takes to optimize customers' equipment, plants and processes.



## Our solutions

We are proud of our rich and long heritage in minerals and metals. We have an extensive presence in Asia Pacific and have been providing our customers with leading-edge equipment, plants and services since the 1950s. Our solutions can range from studies and testwork to equipment procurement, process islands, plant engineering and delivery, through to site services, spare parts, and full lifecycle support.



## Our sustainability commitment

We aim to be a sustainability leader in our industry. By sharing knowledge and combining forces with our customers, partners and communities, we can significantly accelerate sustainable development and change.

One of our key targets is our commitment to the 1.5 °C journey, with targets validated by the Science Based Targets initiative. Today several Metso technologies are industry benchmarks. A significant share of our revenue comes from technologies that directly address some of our customers' key challenges, such as energy and water efficiency, reduction of emissions, circularity and safety.

Central to our sustainability efforts is our Metso Plus portfolio. These specific products and services - which already consists of over 100 products - address our customers' sustainability needs by being demonstrably more energy or water efficient than the industry benchmark.



## Our QEHS commitment

We are committed to the health, safety and wellbeing of our employees, customers and partners in our operations. Our commitment is simple – wherever we work, we strive to ensure people are safe, injury-free and with a minimal impact on the environment. Over the years, we have developed a strong safety culture across all work sites by training, reinforcing and continuously improving our safety performance. We are committed to consistent high ambition and quality in our operations, products and services. We protect the environment in all our activities and by delivering sustainable products and services to our customers.

Metso maintains ISO 9001 (quality), 14001 (environment) and 45001 (safety) certification. In Asia Pacific, this certification applies to major Metso locations in Perth, Sydney, Melbourne, Jakarta and Surabaya.



## Our coverage in Asia Pacific

We are committed to providing an excellent service network throughout Asia Pacific to ensure we stay close to our customers who comprise all major mining houses, mid-tiers, juniors and EPCMs.

Our local footprint comprises service centres, test centres (including one smelting pilot plant), manufacturing facilities, a foundry, regional offices in all major locations, as well as warehouses and distribution centres.

We are your  
partner for positive change

# Minerals processing



## Crushing & feeding

- Gyratory crushers
- Jaw crushers
- Cone crushers
- Horizontal & vertical impact crushers
- Mobile & portable crushers
- Crushing stations
- Belt feeders
- Pan feeders
- Apron feeders
- Grizzly feeders
- Wobbler feeders
- Vibrating pan feeders
- Modular crushing plants

## Screening & classification

- Single, double & triple deck screens
- Banana screens
- Horizontal screens
- Elliptical screens
- Inclined screens
- Ultrafine screens
- Mobile & portable screens
- Hydrocyclones

## Grinding

- AG & SAG grinding mills
- Ball & pebble mills
- Rod mills
- Scrubbers
- High pressure grinding rolls
- High intensity grinding mills
- Vertimills
- Stirred media detritors
- Relining machines

## Slurry handling

- Mill discharge pumps
- Slurry pumps
- Sump pumps
- Froth pumps
- Tank pumps
- Induced flow pumps
- Dredge pumps
- Valves
- Hoses



## Beneficiation

- Ore sorting
- Conventional mechanical flotation
- Flash flotation
- Pneumatic flotation
- Modular flotation plants
- Magnetic separators

## Dewatering

- Thickeners
- Paste thickeners
- High compression thickeners
- High rate thickeners
- Clarifiers
- Industrial Water Treatment
- Inclined plate settlers
- Spiral concentrators
- Spiral dewaterers
- Agitators
- Pressure filters
- Dry stack tailings plants
- Capillary filters
- Vacuum filters
- Polishing filters
- Screen filters
- Tube press

## Material handling

- Haul truck bodies
- Chutes
- Reciprocating conveyors
- Stackers & reclaimers
- Railcar dumpers, pulleys & positioners
- Overland conveyors
- Railcar pullers

## Digital solutions

- Elemental analyzers
- Particle size analyzers
- Advanced process control and optimization
- Data analytics
- Process simulation and modelling
- Sensors and intelligent instruments
- Asset monitoring
- Customer portal
- Process control systems
- Virtual training services
- Samplers
- Metallurgical digital twin

# Hydrometallurgy and metals refining



Hydrometallurgy

- Leaching and precipitation
- Oktop reactors and agitators
- Solvent extraction and electrowinning (SX-EW)
- Tankhouse solutions
- Pressure oxidation (POX)
- Biological oxidation (BIOX)
- Activated sludge tailings effluent removal (ASTER)
- High-temperature caustic conditioning (HiTeCC)
- Cooling towers
- High Pressure Acid Leach (HPAL) Autoclaves



Iron ore agglomeration and reduction

- Travelling grate pelletising
- Grate kiln pelletising
- Sintering
- Direct reduction inc.
- Circored H<sub>2</sub> process



Sulphuric acid and gas cleaning solutions

- Sulphur burning or metallurgical acid plants and equipment
- Full gas cleaning capabilities



Light metals

- Alumina calcination and tube digestion plants
- Security filtration
- Red mud treatment



Fluid bed technology for zinc, copper, gold, pyrite and other materials

- Circulating and bubbling fluid bed applications
- Dead, sulphating, partial (arsenic removal) roasting



Smelting technologies for base metals, precious metals, recycled materials & ferroalloys

- Flash smelting and converting
- Ausmelt Top Submerged Lance
- Kaldo and TROF
- Electric furnace
- Anode furnace and casting



Thermal processing for battery metals, limestone, petroleum coke. Drying & cooling equipment.

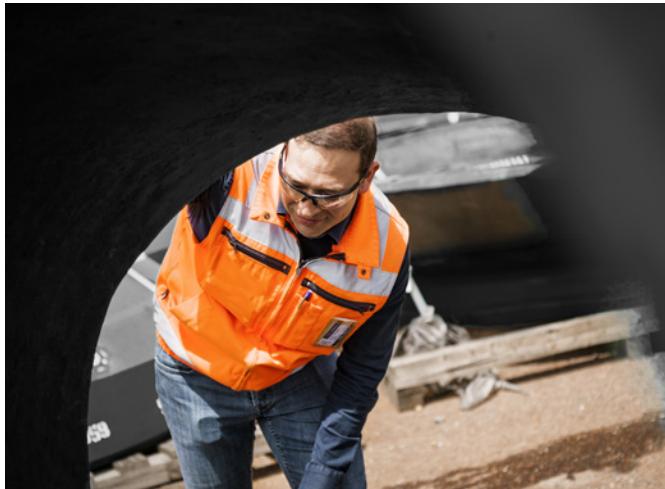
- Rotary kilns – direct and indirect heaters
- Rotary dryers, heaters and coolers
- Fluid bed dryers, heaters and coolers
- Holo-Flite thermal processors



Digital solutions

- Data analytics
- Process simulation and modeling
- Virtual training services
- Process control systems
- Sensors and intelligent instruments
- Advanced process control and optimization
- Asset monitoring

# Comprehensive parts and services



## High quality parts

### Reliable OEM spare parts

- Genuine standard parts
- Comprehensive distribution network
- Engineered-to-order parts to meet your specific needs, utilizing new fabrication and material options

### Wear lining solutions for any application

- Mill lining: Metallic, Poly-Met™, Megaliner™, Rubber and Orebed™ liners for all mill types, from feed head through to discharge system
- Crusher liners: High-quality crusher liners for Metso crushers, heritage brands and third party crushers.
- Chamber optimization program and O-Series for affordable cost.
- Loading and hauling: truck body and truck liners
- Wear linings for all applications, chutes, spouts, hoppers, transfer points and other. Metallic, rubber, ceramic, polyurethane liners. Sheetings and coatings



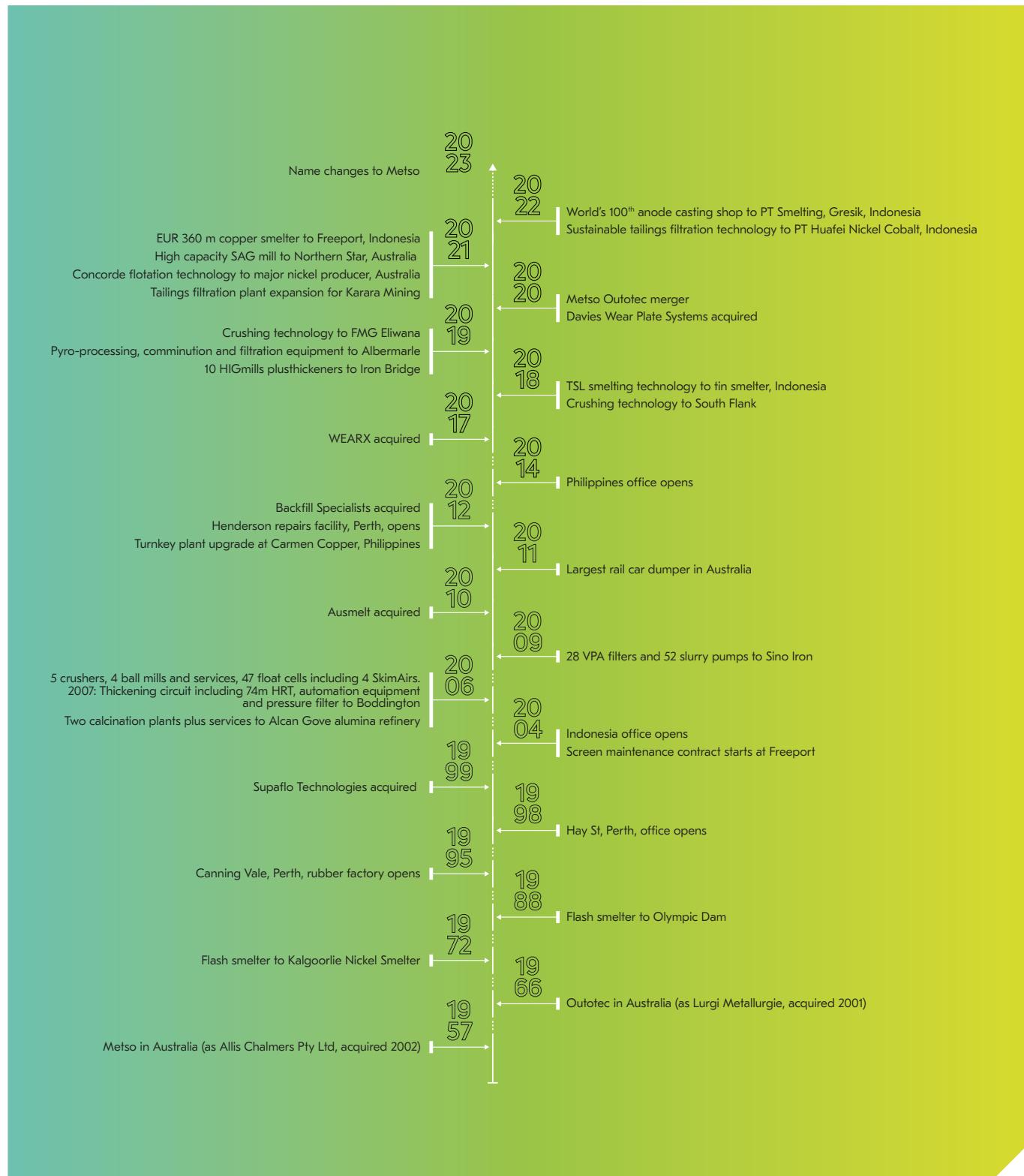
## End to end services

### Comprehensive services

- Expert advisory services including research, testing, inspections, assessments, feasibility and engineering
- Field services and technical support for installation and commissioning, maintenance, shutdown and repairs
- Shutdown planning, execution, and optimization services
- Retrofits, upgrades, and modernizations
- Process optimization and remote connected services focused on improving bottlenecks, downstream impact
- Life Cycle Services (LCS): Customizable service agreements for performance monitoring, maintenance management, and production optimization. LCS offers long term solutions to help our customers exceed their performance targets through partnership agreements.

Available for Metso legacy brands  
and third-party equipment

# Metso in Asia Pacific timeline



Your partner for positive change in Asia Pacific

# Our local footprint

|  |   |                                   |   |  |   |
|--|---|-----------------------------------|---|--|---|
| <b>38</b><br>countries                       |  | <b>1150+</b><br>employees         |  | <b>30</b><br>locations                             |  |
| <b>900+</b><br>sites with<br>Metso equipment |  | <b>250+</b><br>service<br>experts |  | <b>100</b><br>service<br>agreements                |  |
| <b>3</b><br>manufacturing<br>facilities      |  | <b>1</b><br>foundry               |  | <b>7+</b><br>service<br>centres                    |  |
| <b>1</b><br>smelting pilot<br>plant (TSL)    |  | <b>3</b><br>test<br>centres       |  | <b>3</b><br>warehouses and<br>distribution centres |  |

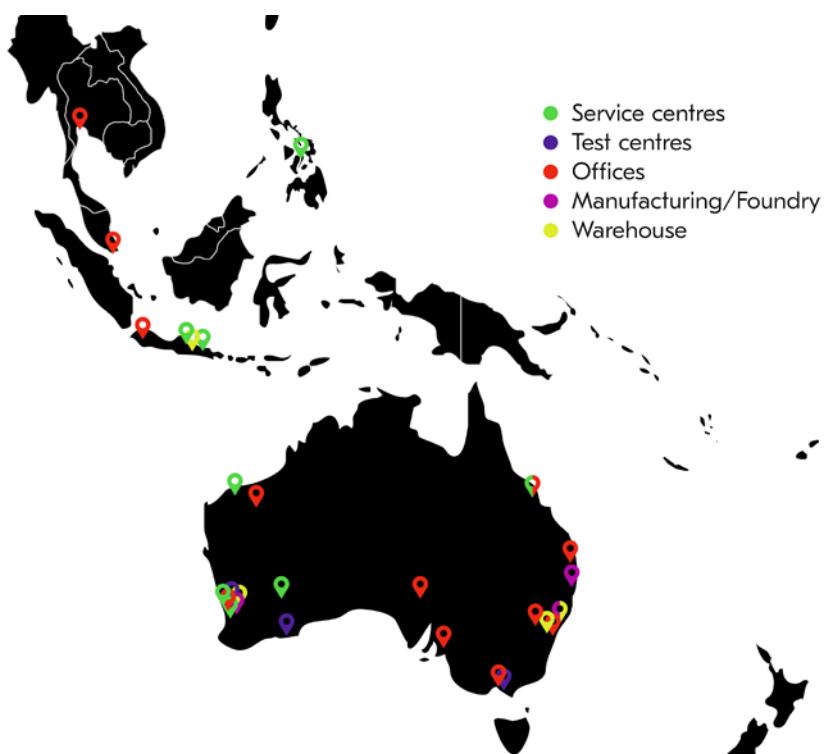
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Metso is a frontrunner in providing sustainable technologies, end-to-end solutions and services for the aggregates, minerals processing and metals refining industries globally. By helping our customers increase their productivity, improve their energy and water efficiency and environmental performance with our process and product expertise, we are the **partner for positive change**.

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