Becoming more focused and agile

João Ney Colagrossi
President, Minerals business area

Metso Capital Markets Day 2014

November 26, Amsterdam
Content

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2. Market outlook and drivers
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This is Minerals
A leading, full-scope supplier of sustainable technologies

Metso Capital Markets Day
2014

November 26, Amsterdam
# Metso Minerals business area today

A leading, full-scope supplier of sustainable technologies for the mining, aggregates and metal recycling industries

<table>
<thead>
<tr>
<th>Minerals Processing Solutions</th>
<th>Crushing and Screening Equipment</th>
<th>Metal Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Product offering and systems deliveries for efficient minerals processing</td>
<td>• Products and systems that cover the entire aggregates production process</td>
<td>• Integrated products and services for metal recycling</td>
</tr>
<tr>
<td>• #1 in grinding mills and mining crushers</td>
<td>• #1 in aggregates crushing and screening</td>
<td>• #1 in metal recycling equipment</td>
</tr>
<tr>
<td>• 60% of Minerals business area’s net sales</td>
<td>• 32% of Minerals business area’s net sales</td>
<td>• 8% of Minerals business area’s net sales</td>
</tr>
</tbody>
</table>

Net sales 2013: EUR 1,563 million
Personnel ~4,000
Metso Minerals serves globally mining, aggregates and recycling customers


- **Net sales by customer segment**
  - Aggregates: 33%
  - Mineral / Copper: 22%
  - Mineral / Iron: 20%
  - Mineral / Gold: 6%
  - Mineral / Other: 11%
  - Recycling: 8%

- **Net sales by business type**
  - Equipment: 80%
  - Systems: 20%

- **Net sales by geographic area**
  - Europe: 26%
  - North America: 13%
  - South America: 25%
  - Asia-Pacific: 10%
  - Africa and Middle East: 2%

- **Employees by geographic area**
  - Europe: 36%
  - North America: 22%
  - South America: 26%
  - Asia-Pacific: 17%
  - Africa and Middle East: 2%
Mining, aggregates and recycling segments are somewhat different but synergistic

<table>
<thead>
<tr>
<th></th>
<th><strong>Mining</strong></th>
<th><strong>Aggregates</strong></th>
<th><strong>Metal Recycling</strong></th>
</tr>
</thead>
</table>
| **Customers**         | • 100’s with top 10 majors  
                          • Make dust from big rocks and extract minerals | • 1000’s, only a few global ones  
                          • Produce aggregates (shape and size) | • 1000’s, only a few global ones  
                          • Recover metals |
| **Technology trends** | • Energy and water efficiency  
                          • In-the-pit processing / ore sorting  
                          • Automation / simulation / optimization | • Continuous development to stay ahead “pirates”  
                          • Products for mid-market segment  
                          • Smart equipment | • Sorting and recovery of many metals  
                          • Smaller sized machines  
                          • Emission controls |
| **Operating model**   | • Direct sales, key accounts, engineering companies  
                          • Engineering  
                          • Sourcing and Project mgmt | • Direct sales, distribution  
                          • Engineering  
                          • Assembly | • Direct sales, distribution  
                          • Engineering  
                          • Assembly |
| **Synergies between the segments** | • Common assets-light supply chain for crushers, screens, shredders  
                          • Common crushing and screening knowledge base  
                          • Global footprint and global capabilities (incl. Distributors) | | |

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Our product and systems offering for Mining customers

Grinding mills

Mining crushers

Process equipment

Bulk material handling

Pyro processing

Mining systems
Our product and systems offering for Aggregates customers

- Crushers
- Screens and feeders
- Lokotrails
- Portable plants
- Mid-market products
- Aggregates systems
Our product, systems and services offering for Recycling customers

<table>
<thead>
<tr>
<th>Metal shredders</th>
<th>Metal shears</th>
<th>Metal balers</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Metal Shredder" /></td>
<td><img src="image2" alt="Metal Shears" /></td>
<td><img src="image3" alt="Metal Baler" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Waste recycling</th>
<th>Recycling services</th>
<th>Recycling systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image4" alt="Waste Recycling" /></td>
<td><img src="image5" alt="Recycling Services" /></td>
<td><img src="image6" alt="Recycling Systems" /></td>
</tr>
</tbody>
</table>
Decline in major mining project orders, aggregates flat

Mining and Aggregates capital orders received

EUR million

Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4
---|----|----|----|----|----|----|----|----|----|----|----|----
2012 | 2000 | 1800 | 1500 | 1400 | 1300 | 1200 | 1100 | 1000 | 900 | 800 | 700 | 600
2013 | 1500 | 1400 | 1300 | 1200 | 1100 | 1000 | 900 | 800 | 700 | 600 | 500 | 400
2014 | 1200 | 1100 | 1000 | 900 | 800 | 700 | 600 | 500 | 400 | 300 | 200 | 100

Capital orders received, aggregates, rolling 12 months
Capital orders received, mining, rolling 12 months
Retaining GP-%* despite lower volumes

Mining and Aggregates capital net sales and GP-%

- Improved sales mix: less systems, stable development in aggregates
- Results through global procurement initiatives
- Successful monitoring and management of global pricing
Market outlook and drivers
Long-term outlook solid for all customer industries
Short-term mining outlook somewhat challenging, long-term outlook solid for all segments

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</thead>
<tbody>
<tr>
<td>Aggregates</td>
<td>4 %</td>
<td>4-6 %</td>
<td>🟡</td>
<td>🟡</td>
<td></td>
</tr>
</tbody>
</table>
|                       |                           |                           |                           |                           | • Growth driven by infrastructure spending  
|                       |                           |                           |                           |                           | • China and other emerging markets as drivers  
|                       |                           |                           |                           |                           | • USA also picking up  
|                       |                           |                           |                           |                           | • Unused capacity limiting short-term growth |
| Metal recycling       | 3 %                       | 3 %                       | 🟡                        | 🟡                        |          |
|                       |                           |                           |                           |                           | • Global steel production still growing  
|                       |                           |                           |                           |                           | • China and other emerging markets as drivers  
|                       |                           |                           |                           |                           | • Regulations key in Europe and N. America |
| Iron ore mining       | 7 %                       | 2 %                       | 🟡                        | 🟡                        |          |
|                       |                           |                           |                           |                           | • Small uncompetitive miners exiting  
|                       |                           |                           |                           |                           | • Domestic Chinese production reducing  
|                       |                           |                           |                           |                           | • Large seaborne suppliers still growing |
| Copper mining         | 3 %                       | 2 %                       | 🟡                        | 🟡                        |          |
|                       |                           |                           |                           |                           | • Demand growth expected to continue  
|                       |                           |                           |                           |                           | • Copper mine utilization at a high level  
|                       |                           |                           |                           |                           | • Copper deficit expected by 2017 |
| Gold mining           | 5 %                       | -1 %                      | 🟡                        | ?                         |          |
|                       |                           |                           |                           |                           | • Small gold miners have been hit hard  
|                       |                           |                           |                           |                           | • Supply driven mainly by fast grade erosion  
|                       |                           |                           |                           |                           | • Demand driven partly by speculative needs |
Global aggregates production expected to grow ~5% p.a. driven by emerging markets

Crushed stone production output value (USD bn)

- Rest of APAC: 5%, 7%
- China: 25%, 11%
- Africa and Middle East: 1%, 6%
- Europe: -4%, 4%
- Latin America: 18%, 10%
- North America: -3%, 7%

Source: Construction Intelligence Center, Sep 2014

Global aggregates production expected to grow at a CAGR of 4-6% from 2007 to 2018, driven by emerging markets. North America and Europe show a CAGR of 7% and 4% respectively, while Rest of APAC, China, Africa and Middle East, and Latin America show a CAGR of 5%, 25%, 1%, and 18% respectively.
Global metal scrap production expected to grow ~3% p.a. driven by emerging markets

Metal scrap recovery by region (Mt)

- Rest of APAC: 4% (2007-12 CAGR), 3% (2012-17 CAGR)
- China: 6% (2007-12 CAGR), 4% (2012-17 CAGR)
- Africa and Middle East: 2% (2007-12 CAGR), 7% (2012-17 CAGR)
- Europe: 1% (2007-12 CAGR), 2% (2012-17 CAGR)
- Latin America: 1% (2007-12 CAGR), 4% (2012-17 CAGR)
- North America: 1% (2007-12 CAGR), 2% (2012-17 CAGR)

Metal Bulletin Research, October 2013
Global mining production expected to grow ~2% p.a. but dynamics is different by commodity

Global ore production by commodity (000 Mt)

  - 2007-14 CAGR: 5%
  - 2014-17 CAGR: 3-4%

  - 2007-14 CAGR: 3%
  - 2014-17 CAGR: 2%

  - 2007-14 CAGR: 7%
  - 2014-17 CAGR: 1%

Source: Raw Materials Group, March 2014
Iron ore: Chinese steel production is still growing, China replacing domestic iron ore with imports

Chinese production of steel (Mmt)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (Mmt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>626</td>
</tr>
<tr>
<td>2011</td>
<td>683</td>
</tr>
<tr>
<td>2012</td>
<td>717</td>
</tr>
<tr>
<td>2013</td>
<td>775</td>
</tr>
<tr>
<td>2014e</td>
<td>815</td>
</tr>
</tbody>
</table>

Chinese imports of iron ore (Mmt)

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports (Mmt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>619</td>
</tr>
<tr>
<td>2011</td>
<td>687</td>
</tr>
<tr>
<td>2012</td>
<td>746</td>
</tr>
<tr>
<td>2013</td>
<td>820</td>
</tr>
<tr>
<td>2014e</td>
<td>860-970</td>
</tr>
</tbody>
</table>

Chinese steel production still expected to grow 5% in 2014

How much domestic iron ore supply imports will replace still uncertain
Iron ore: 30% of iron ore production unprofitable at USD 100/ton price level
Iron ore: seaborne market will balance in 2016, if Chinese demand will increase at least 5% p.a.

Seaborne market for iron ore (Mmt)

Source: Management estimates
Copper: stable demand growth expected, mine utilization already high, deficit expected by 2017

Copper demand: stable 4% growth expected in the coming years

Copper supply: Capacity utilization already high, deficit expected by 2017
Gold: demand is partly hard to predict, future supply outlook flat but grade erosion high

Gold demand: Investment demand has been and will be hard to predict

Investment demand

Fabrication demand

Gold supply: Future supply outlook flat, but grade erosion requiring capex

Gold mine production

Source: Morgan Stanley
Efficiency is the biggest challenge for miners

Metso is transforming itself to be better able to help the miners in this challenge

Past: 2009-2012

- Boom
  - Surge in projects
  - Race for growth
  - High cost inflation
  - War for talent

Present: 2013-2015

- Downturn
  - Projects put on hold
  - Cost, cash, dividends
  - Rising cost pressure
  - New CEOs and more active shareholders

Future: 2016-2020

- Recovery
  - Even larger role of service capabilities
  - Focus on process efficiency, energy & water
  - Continued cost pressure on equipment and parts
  - Further consolidation and centralization

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Future: 2016-2020

- Recovery
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Transforming Minerals
For being better able to help our customers with the efficiency challenge
New operating model

Less cyclical and more robust to market volatility

- Right-sized to market activity
- Agile and simpler organization
- Asset-light operating model
- Re-focused systems business
- Renewal of key product offering
Minerals strategic priorities

Transforming us to provide even better solutions to our customers

**New operating model**
- Global procurement
- Factory footprint simplification
- From 3 to 12 market areas
- Performance culture
- Job rotation

**Customer focus**
- Mid-market segment
- Key account management
- Pricing excellence

**Future solutions**
- Hydraulic rolls crusher range
- Vertical grinding mill range
- Next generation Lokotrails
- In-pit crushing plants

**2013 – 2014**

**2014 – 2017**
- Right-sized to market activity
- Agile and simpler organization
- Asset-light operating model
- Re-focused systems business
- Renewal of key product offering
- Africa and Oceania coverage
- Global distribution management
- CRM and analytics
- Next generation concentrator
- Embedded intelligence
- Next generation unit crushers
- Complete in-the-pit solutions
**Right-sized, agile and simple**

Several initiatives already completed and on-going

<table>
<thead>
<tr>
<th>Right-sized to market activity</th>
<th>Agile and simpler structures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Completed</strong></td>
<td>Completed</td>
</tr>
<tr>
<td>• Headcount reduced by 940</td>
<td>• Recycling business re-structuring</td>
</tr>
<tr>
<td>• Factory closure in New Zealand</td>
<td>• From 3 to 12 market areas</td>
</tr>
<tr>
<td>• Factory closure in Germany</td>
<td>• Major organization de-layering</td>
</tr>
<tr>
<td>• Factory closure in India</td>
<td>• 65% of senior management rotated</td>
</tr>
<tr>
<td>• Engineering resources</td>
<td>• Project excellence program</td>
</tr>
<tr>
<td>• Purchased services</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>On-going</th>
<th><strong>On-going</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Factory closure in Canada</td>
<td>• Recycling business turnaround</td>
</tr>
<tr>
<td>• Further evaluation of factories</td>
<td>• Technical center consolidation</td>
</tr>
<tr>
<td>• Sales force and sales support</td>
<td>• Sales office consolidation</td>
</tr>
<tr>
<td>• Project delivery organization</td>
<td>• Systems business re-structuring</td>
</tr>
<tr>
<td></td>
<td>• Support function simplication</td>
</tr>
</tbody>
</table>
Assessing asset-light model in Aggregates
Preparation to cope with the changes in the market activity

<table>
<thead>
<tr>
<th>Current model in Aggregates</th>
<th>Example of asset-light model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component fabrication</td>
<td>Component fabrication</td>
</tr>
<tr>
<td>In-house</td>
<td>Outsourced</td>
</tr>
<tr>
<td>Component machining</td>
<td>Component machining</td>
</tr>
<tr>
<td>In-house</td>
<td>Outsourced</td>
</tr>
<tr>
<td>Assembly, testing and painting</td>
<td>Assembly, testing and painting</td>
</tr>
<tr>
<td>In-house</td>
<td>In-house</td>
</tr>
</tbody>
</table>

Improved asset-efficiency, flexibility and cost competitiveness
Asset-light model in Mining and Recycling

Preparing to cope with the changes in the market activity

Current model in Mining

- Component fabrication: Outsourced
- Component machining: In-house / outsourced
- Assembly and commissioning: In-house

Future asset-light model

- Component fabrication: Outsourced
- Component machining: Outsourced
- Assembly and commissioning: In-house

Improved asset-efficiency, flexibility and cost competitiveness
# Re-focused systems business

**Equipment, process circuits and process islands in scope**

<table>
<thead>
<tr>
<th>Go-to-Market Model</th>
<th>Equipment delivered</th>
<th>Process circuit</th>
<th>Process island</th>
<th>Complete plant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical scope</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Metso equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Process engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Other equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Detailed engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Structures and piping</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Civils and mine infra</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Typical order</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Net sales</td>
<td>0-40 EUR Million</td>
<td>20-50 EUR Million</td>
<td>40-100 EUR Million</td>
<td>100-200+ EUR Million</td>
</tr>
<tr>
<td>• Share of Metso technology</td>
<td>Very high</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>• Risk exposure</td>
<td>Low</td>
<td>Medium</td>
<td>Medium/High</td>
<td>Very high</td>
</tr>
<tr>
<td>• Add on service potential</td>
<td>Medium</td>
<td>Medium/High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td><strong>Business role</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strategic focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Very limited use only</td>
</tr>
</tbody>
</table>

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Global procurement

We are raising the annual procurement savings target further

Savings target for 2014:
1.7% of total spend

Achieved so far:
1.9% of total spend

Savings target for 2015:
3.2% of total spend

• **Savings achieved through:**
  - Continued category sourcing projects
  - Product renewals and design-to-cost activities
  - Focus towards internal / external supply chain options
  - Increased use of best-cost country suppliers
Customer focus: Mid-market

Two acquisitions made to enable us to serve mid-market customers

<table>
<thead>
<tr>
<th>Shaorui acquisition</th>
<th>Joint venture with LiuGong</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Shaorui Image" /></td>
<td><img src="image2.png" alt="LiuGong Image" /></td>
</tr>
</tbody>
</table>
| • Completed in September 2013  
• A leading local market position and a well-known brand in South China  
• Ongoing actions to improve Sharouï’s product offering and manufacturing  
• Good level of new orders in 2014 | • 50 / 50 joint venture in late 2013  
• Metso: technological know-how  
• LiuGong: extensive distribution and manufacturing capabilities  
• First Chinese-made tracked jaw plant is ready for delivery in Q1/2015 |
Future solutions: 2012-2014 highlights

Sustainable profit improvements for our customers every day

In-pit crushing plants reducing the need for trucks

Vertical grinding mills limiting the need for water

Hydraulic roll crushers improving energy efficiency significantly

Next generation Lokotrails integrating crushers and screens
Future solutions: Next generation concentrator

Research program to make step-change in minerals processing

- Metso and JKTech to work with leading Chilean mining companies at their existing mines
- Target to develop the next generation minerals concentrator
  - **Research themes**: primary grinding, ball mill grinding, classification and coarse particle flotation
  - **Objectives**: Developing knowledge, operational methods, new equipment and novel circuit designs in mineral processing
- Targeting a step change in performance by reducing:
  - Capital cost
  - Operating cost
  - Embedded energy
  - Flotation plant footprint and operating costs
  - Net water usage
Future solutions: Embedded intelligence
Enabling remote control and optimization of process equipment

Fleet or Installed base level Intelligence

Plant level Intelligence

Machines level Intelligence
Conclusions
Capital Markets Day 2014

Market outlook and drivers

Short-term mining outlook somewhat challenging, long-term outlook solid for all customer industries

Emerging markets growth driving aggregates demand

Metal recycling offers great potential for product and services businesses

• Efficiency is the biggest challenge for our customers.

This is Minerals

• A leading, full-scope supplier of sustainable technologies
• Customer industries: Mining, Aggregates, Metal recycling
• Strong product offering
• Able to retain GP-% despite lower volumes

Minerals Transformation:

• Becoming more focused, asset-light and agile to cope with changes in the market activity.
• Product focused and more selective with systems
• Metso is transforming itself to be better able to help the miners with the efficiency challenge