**CHALLENGE**

The biggest challenges in yard management at metallurgical plants include determining material availabilities, optimizing resources, managing the material handling equipment, developing lower cost storage strategies, collecting fill-level information, and avoiding "lost material" caused by insufficient position tracking. Plus the yard team also has to handle all shipping and delivery processes in time and in line with the defined quality standards.

Given the complexity of yard management and the ongoing need to reduce costs and optimize inventory and storage space, sophisticated software solutions are required to achieve the necessary performance levels. Expertise in metallurgy, logistics, production management, and IT—in terms of software architectures and the integration of software into existing IT infrastructures—is therefore critical.

**SOLUTION**

Primetals Technologies’ Yard Management Solution automatically and continuously tracks the physical location of materials, plans transportation routes, and manages all involved resources, such as material handling equipment, storage space, etc. The Yard Management Solution:

- Tracks each material relocation
- Delivers intuitive guidance and instructions to the yard operators
- Automatically works out the best destination for any material, depending on the current storage situation and production requirements
- Automatically calculates the best route, depending on current material location and logistical constraints such as the availability of material handling equipment

**MAIN BENEFITS**

- **Cost Reduction**
  - Up to 20% thanks to improved logistics processes
  - Reduced rental costs for rail waggons
- **Reduced Inventory**
  - Through integration of production planning and logistics
  - Through improved shipment processes
- **Reduced Storage Space**
  - Better usage of available yard areas
  - Increase shipment yard throughput by up to 25%
- **Improved Material Tracking**
  - 100% material location and identification

Yard management solutions optimize handling and shipping processes.
PRODUCT FEATURES

• Shipment planning and execution
• Calculation of optimal material routes
• Material controlling and tracking
• Transport order management: defines the entire transport chain and manages different restrictions for material handling equipment
• Storage strategy management: material storage optimization, restrictions/sequence optimization, material sorting
• Dynamic slot management: merging of stocks

SERVICES

• Integration engineering
• Integration of existing cranes
• Integration and/or upgrade of product marking and tracking systems
• Interface coordination
• Advisory service and commissioning
• On-site training for operation and maintenance staff

ENHANCE KPI’S IN YARD MANAGEMENT

• Transport flexibility [%]
• Stock turnover rate
• Utilization rate [%]
• Coverage range [t]
• Lost material [t]
• Fill grade [%]
• Shelf warmers [t]
• Internal movements [No.]
• Outgoing movements [No.]
• Incoming movements [No.]
• Inventory [t]

SUMMARY

In combination with smart cranes, a yard management solution can reduce intralogistics costs, minimize inventory, achieve 100% material location identification, and optimize the usage of available yard areas, thus minimizing tied capital.