



**Rocla**

**MetRo Warehouse Management System**

**Maximize  
your** **logistic**  
**performance**

*MetRo WMS means intelligence*

# MetRo WMS

**Rocla MetRo is a software package for warehouse management.** Warehouse Management System, WMS, is used to control and optimize the movement and storage of materials within the warehouse, process and production.

**The objective** of latest generation Rocla MetRo is to handle material movements and locations with the help of today's modern information technology. MetRo models and manages the logical representation of the physical storage facilities, i.e. racking, conveyors, floor storage, etc. MetRo can be integrated to existing control systems such as order processing, logistics management and other corporate level systems.

**The WMS can control** different material handling technologies. These technologies can include forklifts, automated guided vehicles, cranes, shuttles, conveyors and many others. MetRo is the seamless link between various material handling technologies and control systems. It can be customized for different customer needs with dynamic and scalable system design. MetRo can easily be updated on top of the old system.

## WMS in short:

1. Controls locations and product placement
2. Automatic system with intelligence
3. Controls transport resources
4. Tracks the movement of products and materials
5. Maintains up-to-date inventories

Are you  
ready for

..... performance boost? .....

# Features / Functions

**MetRo features** are created with versatile functions. These functions are the core of a successful logistic operation. MetRo brings a collection of different functionalities to one optimal package. Needed features that support operations are fully included on demand.



# Technology

## State of the art

MetRo uses robust Microsoft Windows servers and Microsoft SQL database. The server features, mirroring, etc. are agreed in seamless co-operation with customer to support customer's operations.

WMS examines different alternatives based on set of rules and parameters for storing the goods. According to a heuristic analysis WMS selects the optimal storage location. Rules can be a combination of availability when picking, restrictions, transport time, ABC analyze, etc. The system is self-learning from the accrued events. MetRo is in normal operation fully automatic warehouse management system.

### Location optimization

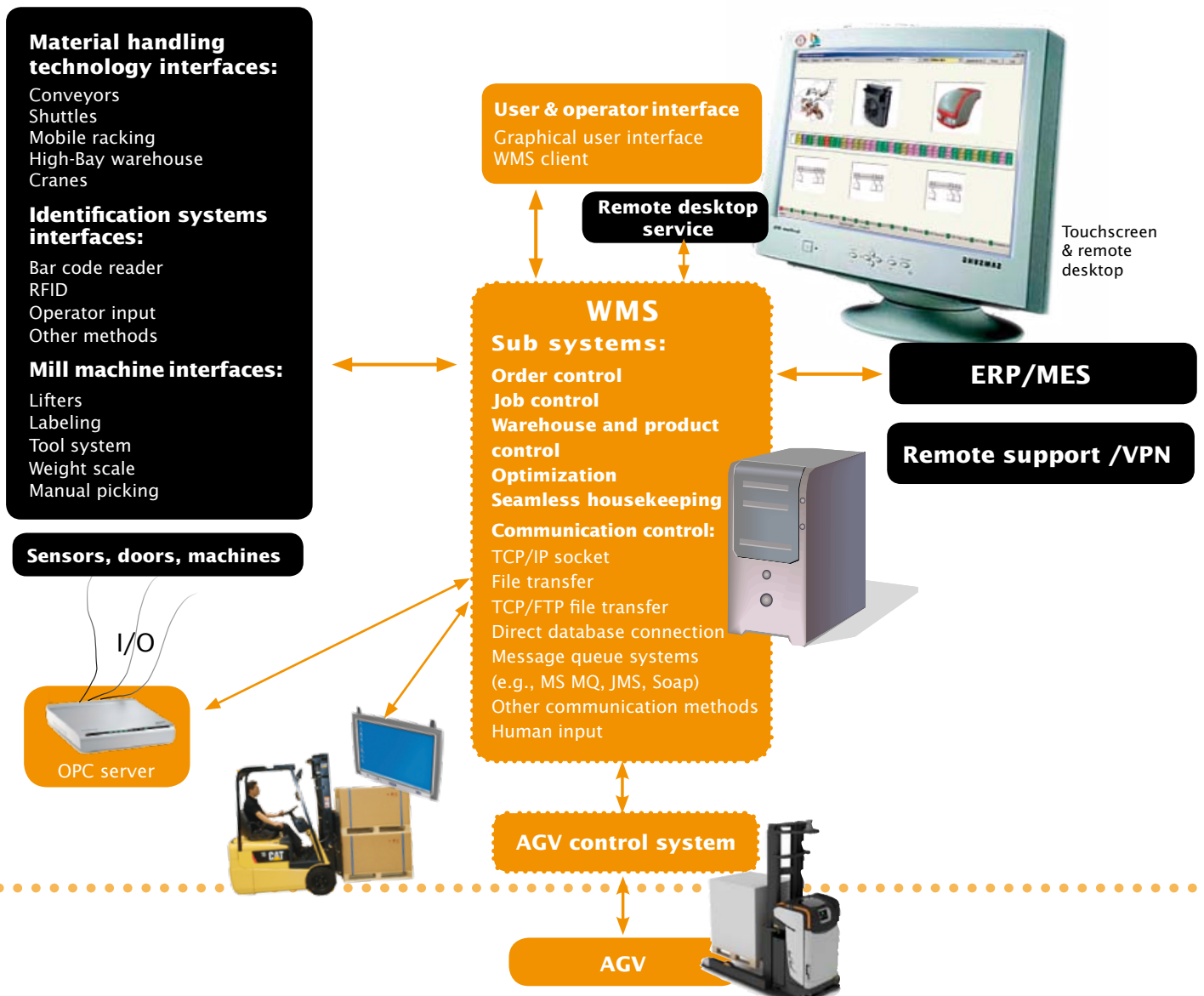
Location optimization is realized as calculated advantage factor. Calculation is based on handling standards and is influenced by the warehouse filling degree and guide parameters.

### Housekeeping

Housekeeping is based on same advantage factor as location optimization. Function calculates advantage factor for every goods location in warehouse and analyzes if better location can be found. If housekeeping finds better location the goods are moved to that location. Housekeeping starts automatically after defined AGV idle time.

### Job control

Job control hands out jobs to AGV system and other material handling technologies according to orders, priorities and optimal execution order. It makes sure that these jobs and orders are done according to the set parameters and rules. It also keeps track on job status and job buffers and controls them.

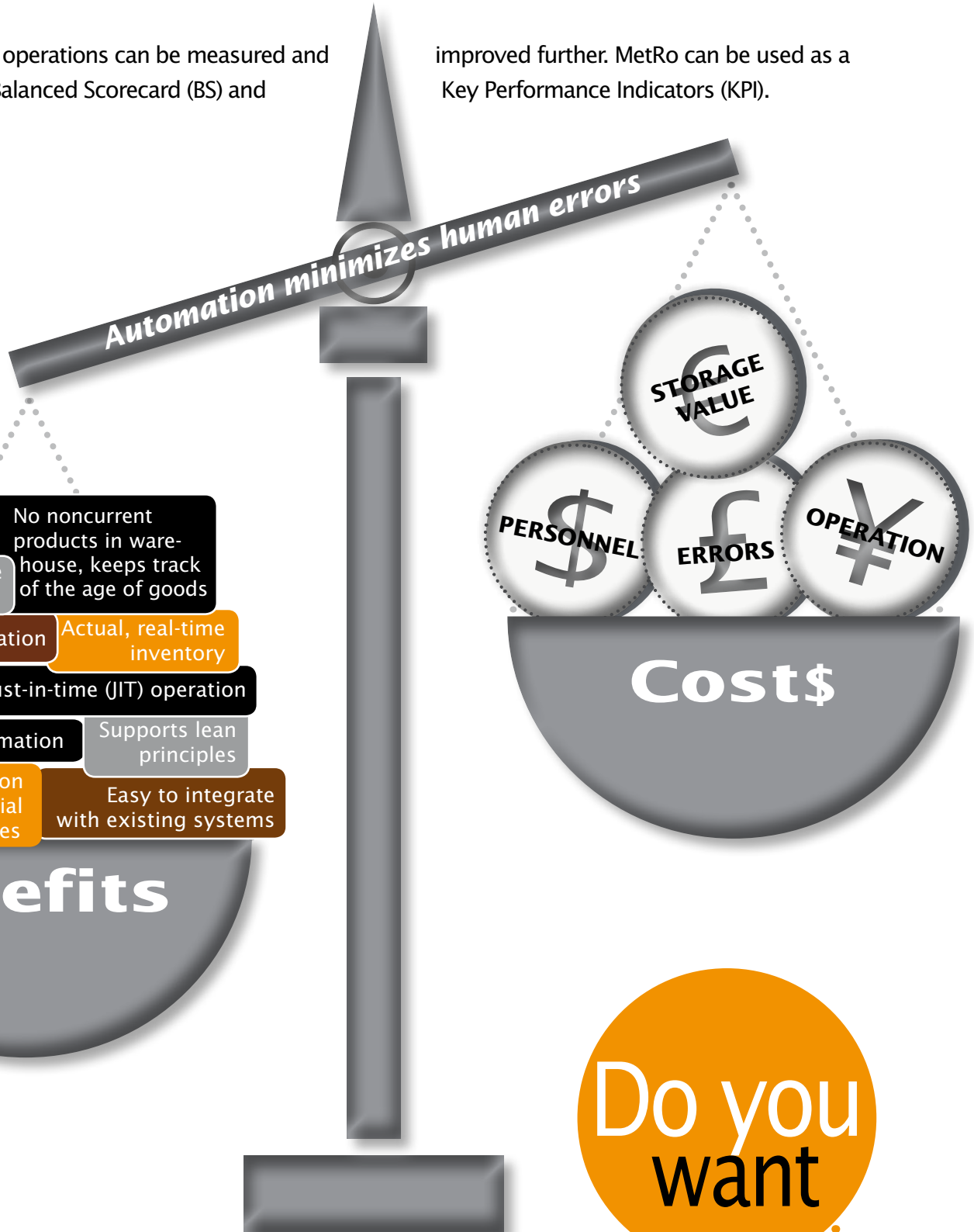


# Benefits

Considerable benefits and savings can be achieved with MetRo's technology-enabled features.

With MetRo operations can be measured and source for Balanced Scorecard (BS) and

improved further. MetRo can be used as a Key Performance Indicators (KPI).



*order in chaos?*

*Balancing production, flexibility and minimized buffer stock were important issues why Valtra chose an automatic truck solution*



## Valtra, Inc.

part of Agco Group, in Suolahti, Finland, manufactures tailor-made tractors. In the first phase Valtra automated the component feeding on the assembly lines in production with 2 AGVs, WMS and warehousing solutions. Secondly they added pick-to-AGV and pick-by-light applications with two more AGVs and an updated WMS to axle manufacturing and parts assembly.

*Machine running time increase lead Cascades to automate reel movements inside the reel handling process*



## Cascades la Rochette

in la Rochette, France, produces coated foldable cardboard. Cascades automated the transport of reels from the paper machine to intermediate warehouse operated by an automated crane and from the warehouse to winder, sheet cutters and to wrapping. The reels in between are moved by conveyor and 3 AGVs.

*Operation reliability and trustworthiness were the biggest motives for Mondi to automate indoor logistics in two warehouses*

## Mondi Merebank

paper mill in Durban, South Africa, produces mainly office paper for worldwide markets. Mondi automated the paper transport from a roll conveyor to two intermediate warehouse operated by 7 AGVs and hence to a range of A4 sheet cutters. WMS controls the intermediate warehouses and selects reels to sheet cutter needs.

## WMS features

- Seamless link between the conveyors, automatic cranes, AGVs and forklifts
- Creates and optimizes picking list
- Controls pick-to-AGV and pick-by-light applications just-in-time
- Sheet cutter orders made on WMS and best reels selected to the order
- Real time communication with the ERP

## WMS benefits

- Production and process transparency
- Human errors minimized
- Easier implementation and improved communication
- Optimization of the reel location inside the warehouse
- Sheet cutter input reel length optimization
- Automatic housekeeping in the warehouse
- Reel quality management and waste reel handling

Shall we  
take the  
first step  
today?