

## Valio, Finland



Valio is the leading dairy product manufacturer in Finland. Operations at Valio's new whey powder factory started in fall 2014. When the construction of this site started, the main goal was to build a fully automated warehouse. Valio also needed to maximize the storage capacity in this space, and to be able to adjust the temperature and air humidity.

At the warehouse there are 3 Rocla's automated guided vehicles (AGVs) and mobile racking system in place, which saves a lot of space. Mobile racks also enable easy access of every pallet. At the moment Valio has 2514 pallet places weighing totally 3 million kilos at this factory. There are two shifts working from Monday to Friday. All the production goods are transported with AGVs from the conveyor to be stored in mobile racks. The second task for AGVs is picking. AGVs pick the goods from mobile racks according to customer orders and transport them to shipping area. The warehouse management system (WMS) controls all the pallet locations and informs the AGVs where to pick. Traceability is 100 %.

"We were convinced that Rocla's solution would be the best after a reference visit to their customer. Rocla also convinced us that AGVs would work together with mobile racking system," explains Pauli Väisänen, Production Supervisor at this factory.

"Earlier we worked manually with drivers operating forklifts, which was quite heavy work for them. We wanted to move them to more productive and lighter work, and now they are monitoring the automated system to make sure everything works smoothly," Mr. Väisänen continues.

#### Support within one hour

"All our project goals have been fulfilled on time and the warehouse is already working at 99 % level. In relation to time we have reached our goals. Working with Rocla has been very nice. Rocla's commissioning personnel conducted the project very smoothly and patiently," Mr. Väisänen compliments.

Maintenance is done once a year by Rocla, and some smaller tasks are also done by Valio's own personnel if needed. "We have a service contract with Rocla, which means we get help from them, if, for example, there is a software thing we cannot solve ourselves. We get a response within one hour when needed," he describes.

Mr. Väisänen sums up the automation project and co-operation with Rocla:

"It is important to have the information right when starting the project on both sides. Patience is also needed so that every detail is considered before implementing. Co-operation with Rocla works really well. We get support when needed, either on site, by phone or through remote connection. From our experience I would definitely recommend Rocla's solution and service".

"We wanted to save costs compared to manual operation. Rocla's automation solution is one of the most successful solutions in this factory."  
Antero Ylitalo, Production Manager, Valio Lapinlahti



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Valio is the leading dairy product manufacturer in Finland, and the Haapavesi plant processes and packs one of Scandinavia's favourite cheese brands Oltermanni. Inside this factory in northern Finland is something a little bit special. It lives and sleeps on the warehouse floor, weighs four and a quarter tonnes and has a top speed of 7 kilometers an hour. It has a name but the staff here know it simply as Number 1.

Number 1 is an Automated Guided Vehicle designed and manufactured by Rocla who have been developing AGVs for more than 30 years. The key difference is Number 1, alongside its factory partner, Number 2, has no human operator.

Instead it's bristling with the very latest navigation and sensor technology. The AGV receives its instructions by wifi and carries them out using a rotating laser which bounces off a series of discreetly placed reflective strips. The unit can calibrate its exact position to within a centimeter. And it's safe too. Sensors at both ends, in the side rails, above the AGV and in the forks themselves means that if anything comes too close, it stops!

### Part of the team

These AGVs have been customised with the Oltermanni branding and have quickly become part of the team. "Of course forklift drivers are true professionals. But these guys (AGVs), they don't have bad days", mentions Jarno Pajula, Valio's Planning Manager, Warehouse Logistics.

By replacing manual operators the amount of damage to vehicles, stock and site has reduced by 90 %. The number of forklift operators Valio employs on this site has fallen from 8 to 4 and manual shifts have fallen from 3 to 2. These AGVs can run unattended through the night.

Crucially these machines don't require track installation or wholesale changes to the existing design of a warehouse. The AGVs know their jobs and get on with them and when they are running low on power they automatically roll themselves onto floor-mounted charging contacts.

The AGVs are moving around in areas where there are also manual forklifts and people, and they get along with everybody.



"People are often afraid of new things but nowadays everybody says they wouldn't give them away."  
Marko Palosaari, Plant Manager, Valio Haapavesi

