

**Food industry**

**MES, System Platform**



ERP ja automaatio liittyvät nopeaksi kokonaisuudeksi

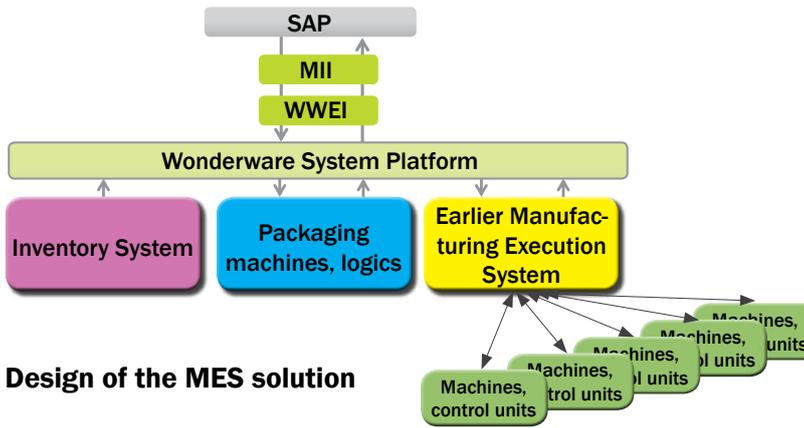
# Wonderware MES unifies and boosts production



*Arla Foods is one of the leading global dairy companies. In Europe alone Arla serves more than 250 million consumers. In Finland, Arla Foods took over the dairies and production plants of Ingman Foods in 2007 and 2008. In line with the goals of Arla Group, the target was to integrate the procured Ingman production plants with the group level automation and reporting concept of Arla as soon as possible.*

The Ingman production plants obtained by Arla had various automation systems (Honeywell DCS, different logics, etc.) ready installed, and their own local far advanced tailored Manufacturing Execution System with databases. Instead of replacing the functioning automation units, Arla's aim was to join the data received from these with one and the same production IT system, which became the grounds for launching the MES project for the factories.

When the MES project and the data involved were specified, special attention was paid to the environmental targets of the Arla Group, incl. cutting the CO2 emissions of the Group by 20 per cent by the year 2020 in production, transportation as well as packages.



**Design of the MES solution**

Wonderware MES program family was selected for the MES solution due to the following essential selection criteria:

- Wonderware can be easily connected to various automation and data systems of the factory
- Wonderware MES modular programs in a standard form
- Services of Wonderware trained project management units in project outlining and execution
- ERP connection to SAP data system in compliance with ISA95 standard
- Connection of existing databases and the data included to the same Wonderware system.

**Completely automatic and transparent interface of SAP ERP and automation**

Wonderware MES is based on the Archestra System Platform, which can be installed as a MES level that is connected to the inventory and production level as well as their different databases, machines and production automation. At this the Wonderware MES also offers one standard interface for the SAP ERP connection, facilitating connecting to the ERP level. The SAP connection to the SAP/Mii level was executed by means of database spreadsheets and web interfaces.

The connectability of quick packaging machines was in special focus, so that the various production orders arriving from the SAP system could be run with the most appropriate packaging machines, which would render maximum production output. The aim with these connections was to obtain fully automatic data

transfer that would minimise processing failures and hindrances.

Earlier, the work orders of packaging machines were optimised in the ERP manufacturing execution and were delivered to the packaging machines once a day, which made production planning rigid and hard to predict. With the new Wonderware MES interface, work orders are run from the ERP system to packaging machines in real time, which significantly increases the production capacity.

Wonderware MES also provides for the synchronisation of production data, delivering KPI reports according to the meters specified by Arla. Due to the SAP interface, the key performance indicators are suitable for direct comparison with other Group plants of similar type, and production can also be developed, utilising the common group reports and the information included.

**Whole MES project in six months - easy maintenance**

After careful specification, the Arla-Ingman application was configured with the Wonderware MES modular programs in around three months, followed by testing and implementation of the application. The training provided to users and operators ensured easy implementation and gaining of the benefits of the system right from the start. The whole project took less than six months, keeping it well within the original approved cost budget.

The Wonderware MES solution allows remote operation and specification, and thereby the use of the best experts for the analysis and interpretation of various data and production information throughout the whole Group. Remote terminals feature the advanced data protection and security functions of Wonderware MES.

Wonderware MES and System Platform offer a ready platform for the further development of the reporting and automation of production plants. Any new key indicators specified by the Group can be implemented immediately as a common measure in different production units, contributing to the development of the operations of the whole Group on the basis of the best common information.

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