sedApta group
smart manufacturing made easy

CASE STUDY FOOD & BEVERAGE
CAMPARI

Campari Group is one of the major global players in the spirits industry, with a portfolio of over 50 brands spreading across global, regional and local priorities. Global priorities include: Aperol, Appleton, Estate, Campari, SKYY, Wild Turkey and Grand Marnier.

Campari was founded in 1860 in Milan, when Gaspare Campari created the famous red aperitif with a medium alcohol content. Since 1888 the development of an expansion policy has already been implemented, alongside a winning marketing strategy. Already in the 60's the Group's distribution power reached over 80 countries. In the second half of the 90's, Campari started growing not only through an organic increase, but also through external lines, shifting from a mono-brand company to an enterprise with a solid portfolio of brands able to expand internationally.

Today it is the sixth-largest player worldwide in the premium spirits industry. It has a global distribution network trading in over 190 countries worldwide, with leading positions in Europe and the Americas.

The Group's strategy aims to combine its organic growth, through strong brand building, and external growth, through selective acquisitions of brands and businesses. The spirits are the Group's core business where acquisitions are focused.
Headquartered in Sesto San Giovanni, Italy, Campari Group has 22 plants worldwide, and its own distribution network in 22 countries. The Group employs approximately 4,000 people.

ANALYSIS

In order to expand production as a consequence of a series of new acquisitions, Campari has decided to automate the monitoring process of production lines in the Group's main plant. The high level of automation of the new Crodino bottling line in Novi Ligure has created the right conditions for the implementation of a "Manufacturing Performance Monitoring" solution integrated with the management systems.
The project is a model for subsequent extensions both to the further lines of the same plant, and to the main Italian and foreign production sites of the Group, so as to constitute a standard for monitoring Campari bottling processes.
From a technical point of view, it was therefore required the need to communicate with recent machines from different suppliers (leaders in the sector) and also the versatility to integrate machinery that is not necessarily of the latest generation.
Furthermore, given the evolution of internal management processes, the ability to adapt to future solutions in the field of traceability present in Campari's evolutive Road Map was foreseen from the first phases of analysis.

Particular attention was given to the formalization and development of process indicators (KPIs), defined according to industry DIN standards (8782, 8783, 8743) that constitute the main specifications of the monitoring reports.
Also, in terms of IT architecture perspective, the solution was designed to be easily implemented in the main Group plants respecting Campari's Security constraints using a "hybrid" cloud solution, based on Azure "Paas" services.
At last, the integration between the ticketing systems of Campari and sedApta has also been developed in order to have a single Point of Contact in case of system anomalies.

SOLUTION

The project involved the implementation of the following sedApta application modules:
- Shop Floor Monitor
- Suite O.S.A. - Analytics
- Communication Manager

COMPANY
CAMPARI GROUP

SECTOR
FOOD & BEVERAGE

SIZE
22 MARKETS
22 PRODUCTION PLANTS
4.000 EMPLOYEES

TURNOVER
1.772 MLN € (2020)

SEDAPTA MODULES
SHOP FLOOR MONITOR
SUITE O.S.A. - Analytics
COMMUNICATION MANAGER

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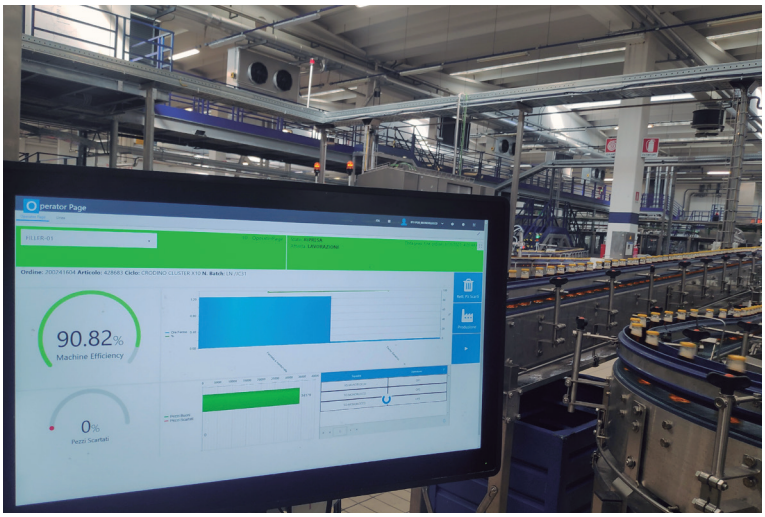

The solution, currently in the roll-out phase, models the line as a set of individually monitored machines, of which the filling block determines the overall plant performance. The production progress system automatically acquires two classes of information from the machines:

- Machines status, quantities produced, randomized scraps, downtimes and reasons
- Significant process variables

For the machines certified according to Industry 4.0, a bidirectional flow of information exchange with the management system was also implemented, as required by the certification.
The information collected is displayed in real time directly on the PCs on the line through performance indicators that show, both at line level and at individual machine level, line OEE, machine Efficiency, Quality Index, Pareto diagram of downtimes and quantities produced in the shift.

Thanks to the complete integration between the data collected from the field and the reporting tools, the sedApta solution has implemented all the KPIs required by the customer, making available a collection of reports oriented to:

- line performance monitoring
- quality control relating to incoming materials (bottles) and creation of scraps generated during the process
- control of the main process variables, especially for Pasteurizer, Mixer, and CIP.

BENEFITS

From the earliest start-up phases, the solution immediately highlighted the main benefits that an automatic monitoring system can bring, in particular:

- Punctual control of the main inefficiencies due to machine downtimes, with immediate indication through Pareto diagrams of the incidence of the different stop types
- Control of the defects of the input materials (bottles) through Pareto diagrams of the defects found by EBI and their correlation with the supplier lots used
- Control of the main process parameters (e.g. CIP) with the indication of the correct outcome of the process acquired by the machines even in the absence of supervision
- Accuracy in the declaration of the produced quantities through a step by step control of the generation of scraps during the passage of the product between one machine and another (conveyor belts)
- Accurate setup time management for the calculation of the line OEE through setup matrices implemented in the system.

CAMPARI GROUP