



CASE STUDY

The logo for Alquería, featuring a stylized white cow head silhouette with a splash of milk above the word 'Alquería' in a white, serif font.



About the company

For 60 years, Alquería has specialized in the **processing and commercialization of long-life dairy products** and is now positioned in the top 3 companies in the Colombian Dairy industry. Alquería has always sought **constant evolution** for business processes in its value chain, especially in critical processes such as supply and the optimization of fresh milk collection.

To stay ahead of the market, Alquería made the decision to **digitally transform operations**, using a Digital Business Platform to **achieve real-time control** of their daily processing of 1.2 million liters of fresh milk, integrating many processes including purchasing, milk collection, farm visits and supply to production for the entire company, consisting of 11 collection centers, 3 plants and over 2,500 production associations involving over 13,000 farms.



Company name:
Alquería

Address:
Cajicá - Kilometro 5 vía Tabio
Bogotá, Cundinamarca
(Colombia)

Sector:
Processing and commercialization
of long-life dairy products.

www.alqueria.com.co



“ It has resulted in more efficient management of daily operations and continuous improvement.”



What is AuraQuantic?

It is a platform that offers easy design and execution of even the most complex operational processes without additional programming.

You simply define the process flow diagrams using drag and drop and AuraQuantic organizes the rest, sending tasks to the right people at the right moment.

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Introduction

In order to achieve **excellence and organizational efficiency**, the Alquería team embarked on a business project using a combination of human tasks and the latest technological resources.

The Digital Platform with BPM has empowered Alquería to **control and analyze company performance**. The competitive advantage gained is the ability to control relevant information for price calculations, including the certifications of each farm, analyzing volumes and centralized

information of all the processing to analyze efficiency, pinpoint issues and make calculations to obtain greater margins. It has also resulted in **more efficient management** of daily operations and **continuous improvement**.



Challenge

The process of collecting raw milk involved many people who had to **keep control the amount of milk collected on paper** which was subsequently consolidated into Excel sheets; often generating **delays** that impacted decision making in the supply chain, milk quality analysis (variable with Colombian law regulating the payment of milk), freight payment and application of discounts to farmers and transporters.

Solution

The **AuraQuantic digital platform** is mission-critical, as it operates **24 hours a day**, every day of the year and impacts 100% of the industrial process. It controls the entry of more than one million liters of milk per day at a national level. All operators in each collection center use very efficient capture screens and **integration with industrial devices** (flow meters, scales, etc. which give the company **total control of the process**.

The platform drives hyper automation providing **integration and interaction with other applications**, including:



MOBILE APPLICATION FOR MILK
COLLECTION DRIVERS.



MECHANICAL MEASUREMENT
SYSTEMS FOR SUPPLY CONTROL.



CORPORATE ERP FUNCTIONALITIES TO
KEEP ONLINE INVENTORY CONTROL.



END-TO-END DIGITAL PLATFORM INCLUDES:

- Master data management.
- Livestock advisory visits.
- Collection of raw milk from farms.
- From supply to production plant.

All the **basic parameterization of the dairy farms, stock, routes and vehicles** is collected on the platform, then the waybills are drawn, and another department schedules quality samples. Subsequently a scheduled task sends that information to a mobile platform for the workers to begin the collection work.

When the collectors start their work and register data on the **mobile platform**, AuraQuantic uses the data to control the milk per supplier and consolidates it for each compartment of each vehicle to allow an operator to start the download process, which consists in taking temperatures and quality samples. Once this work is done, it goes to the quality area for analysis with minimum and maximum compliance parameters.

In case of a non-conformity, the system rejects the milk and uses the tools traceability to show the quality operator where the milk was collected and stored, to analyze a counter sample and determine which farm or vehicle caused the non-conformity and automatically charge for the defected milk.

Once the milk has passed the **quality control**, the analyst gives the order to unload each compartment

of each vehicle, at which point the unloading operators receive a task containing all the necessary information for them to empty the vehicle; this data is registered in AuraQuantic to ensure the complete traceability of the process and take an online inventory. From a button on a form, the integrated mechanical pumps are turned on that unload and automatically weigh the milk. The information that is given by the scales is compared with the data collected in the farms and real-time information of losses is reported. The data controlled by the platform is integrated into the ERP to carry out the manufacturing process and process the payments to dairy farmers and transporters.

The system **provides traceability** back to the farm and even the exact silo of milk that is collected, as well as a detailed report of the milk losses and charges to each person; it also controls all the characteristics, pays transportation rates for each vehicle and records the product quality at arrival. At present, the freight rates of more than 120 vehicles are controlled daily with the data managed by the platform and sent to the ERP for their respective payment.



Results

Before the implementation, there were **two premises**: first, to make it simple and practical for users and, second, to automate the controls and ensure they bring great value.

As a result of implementing the no-code Application Platform AuraQuantic, Alquería is reaping multiple benefits, such as **process optimization and standardization** and the complete digitization of information, traceability, **100% reduction in time and costs** involved in the calculation of transportation and farm payments, **accurate real-time information** on inventories and optimal quality control points in all supply and transportation processes.

The people involved in the processes, ranging from operators to area managers, now understand how their work impacts each part of the workflow. In addition, the control points were designed so that the tool detects important variations. In such cases, the process is submitted for review, leveraging the detailed information

collected by the platform.

During the project, normal operations were drawn in diagrams highlighting the critical points that have an important economic or time-related impact.

Also, they can **monitor how each process is flowing** according to the different activities and how each use case or exception behaves, making it easy to pinpoint issues or points for improvement. When **instant changes** are required, the simulation tool can be used to evaluate the impact and determine the best modification. Information can be linked from one process to other, such as visits to farms where there is a **continuous improvement** scheme proposed to each of them. Likewise, the processes undergo continuous optimization to ensure the control points and indicators are put to good use.



THE DATA

AuraQuantic controls the entry of **more than one million liters of milk per day** at a national level.



Impact

Alquería now has the **agility and flexibility to undertake all kinds of changes immediately** with complete control and security. Furthermore, they use the tool's integrated capabilities that empower the **management of all types of cases**, these capabilities include:



Monitoring, control and analysis of the execution of each process and the analysis of each case and the combined results of several cases.



Agile management of documents and content to provide a source of organized information.



Agile creation of management applications to control the different types of cases and elements involved in these cases.



Complete vision of all business activities (in addition to having the option to enter data, make changes or terminate a process at any time).



Integrated tasks and dynamic forms that have the capacity to make items appear when required.



Business Rules Management.

The next stage of the project involves integrating farmers as actors in the digital ecosystem; where they can access information about the conditions of their milk and can make decisions to drive continuous improvement for quality and efficiency.

As the project progresses, the scope of control possibilities and improvements widen, and adoption expands across the company. Currently, after the ERP, **the BPM digital platform is the largest and most fundamental technology for the company**, and its impact has been immense.

Quotes

“Absolutely all the development, processes and controls were carried out in the AuraQuantic tool. We integrate the information provided by the platform with the ERP. This integration is continuous and bidirectional.”

Fernando Trujillo / IT Solutions Coordinator



“Also, we have integrated the AuraQuantic Instant Workflow application with information panels and a mobile platform developed on Android that allows us to collect and leverage information that we never had previously.”

Fernando Trujillo / IT Solutions Coordinator

“After completing a brief training course and a lot of reading and practice, we decided to carry out the development ourselves. One person was responsible for the development and, if a technical question arose, we consulted AuraQuantic partners. The results are very positive.”

Fernando Trujillo / IT Solutions Coordinator





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