



Beer production meets 21st century blockchain technology

In October 2020, AB InBev launched a pilot in Europe to give full transparency and traceability of its supply chain of barley, from consumer to the farm for one of its brands, Leffe. This pilot is an important episode in the journey to 2025, by which AB InBev pledges to have used its research knowledge, technology, and financing to transform 100% of its direct farmers with skills, connectivity, and financial empowerment.

About the customer

AB InBev (Euronext: ABI) is the world's leading brewer with brands including Stella Artois and Budweiser. From its headquarters in Leuven, Belgium, it employs 175,000 people across nearly 50 countries, with an annual turnover of more than \$50 billion. AB InBev is at the forefront of the global supply chain transformation age through innovation to achieve its 2025 goals for smart agriculture, water stewardship, circular packaging, and climate action.



Industry: **Manufacturing**



Location: **Belgium**



People: **175,000**



Web: **ab-inbev.com**



Challenge

To produce a data set and platform delivering a decentralized, immutable, and real-time environment.

Solution

- New private, permissioned blockchain solution
- Integration of applications, corporate SAP ERP, and external 3rd party environments
- Consumer mobile application for interacting with the blockchain solution

Outcomes

- Pilot success represents a milestone in building the digital capability to help achieve AB InBev's environmental and sustainability goals
- It gives consumers transparency into what goes into making their beer

Tracing the history of the beer we drink

Beer is found at the heart of many aspects of life, culture, and tradition. Leffe beer from Belgium can trace its roots back to the year 1240 when it was first prepared as an invigorating beverage for pilgrims to the abbey of Notre-Damme de Leffe. With diseases like the plague running rampant through the region at that time, the boiling of water during the top fermentation process of the Leffe beer killed all germs.

Fast forward to the present day and consumers remain interested to know what goes into their beer so one of the world's biggest brewers, AB InBev, has given them a way to find out.

AB InBev places importance on ensuring the quality of the raw ingredients it uses and promoting the efficient use of natural resources. It recently embarked on a pilot project linking barley farmers in northeast France with a malthouse in Antwerp and to the brewery in Leuven.

The project is designed to give full transparency of the barley supply chain from the farmers to consumers, and for the pilot, QR codes were added to one million beer packs in France.

By scanning the codes, consumers can see where the barley in their beer was grown, reaped, and malted, giving them more insight than ever before.

One of the largest buyers of barley globally, AB InBev works directly with 60% of its farming base, but this latest project is designed to highlight the other 40% of indirect farm suppliers.

Data is gathered from each part of the brewing process and includes environmental impacts. It provides a full end-to-end view of the supply chain and it can also help to advance agricultural development by improving growers' yields, water, and energy efficiency, as well as soil health.

Specialist technical skills for platform development

The success relies on the trustworthiness of the data and its secure storage ensured by blockchain technology. Blockchain is a ledger of transactions that guarantees authenticity.

Specialist knowledge is required which is why AB InBev turned to Fujitsu and its Blockchain Innovation Center, working in collaboration with its partner, SettleMint. Both companies have deep experience in the deployment of track-and-trace technology for complex supply chains.

Fujitsu's multi-disciplinary approach was also vital because the project involves integrating blockchain with the company's existing SAP and supply chain management systems.



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Erik Novaes, Vice President of Procurement & Sustainability, AB InBev

1 million

beer packs printed with traceability QR codes for pilot project

Support for sustainable crop production

Using Agile and DevOps methodologies, the Fujitsu project began with a four-week initiation phase involving deep-dive workshops which analyzed the requirements and designed the blockchain solution. The SettleMint platform was configured to deliver the blockchain components, and then the track and trust solution was fully deployed to a production environment.

Erik Novaes, Vice President of Procurement & Sustainability, Europe at AB InBev explains: “Beer is made of simple, natural ingredients: barley, water, hops, and yeast, so it’s important that we, as a company, and our consumers know that the ingredients we use are of the highest quality and grown sustainably. This new barley blockchain pilot is the latest initiative in our focus on smart agriculture: using new technology, data, and insights to improve our farmers’ use of natural resources, crop yields, and livelihoods. We’re excited about the potential to bring this project to our European growers, and to show beer drinkers where the barley in their Leffe is from.”

Pieter Bruyland, CIO for Europe at AB InBev adds: “For the first time in our European operations, this project will create a fully transparent, indirect supply network all the way to the end consumer. By connecting players across the beer supply chain – from farmers, malting cooperatives, breweries, warehouses, and carriers – to one secure, decentralized platform we can increase traceability and gather data that will help us to continue to grow the finest ingredients for our beers sustainably. What’s more, this blockchain technology can link beer fans all the way back to the farm – from the barley field to the beer drinker.”

As stated in its sustainability goals, AB InBev has pledged that by 2025, 100% of its direct farmers will be skilled, connected, and financially empowered. Supporting the traceability of the indirect supply chain with this pilot is a big step towards making those ambitions a reality.