



PRESS RELEASE

Torre Pallavicina Dairy signs on for blockchain and smart contracts, bringing innovative traceability to the Grana Padano PDO supply chain.

Grana Padano is the most popular PDO cheese in the world.

We have arrived at the intersection of digital identity and the renowned dairy production of the Grana Padano PDO by Torre Pallavicina. Thanks to the inclusion of blockchain, the story of the Grana Padano will now be chronicled in full detail and in real time, from field and farm prior to production, to its arrival on tables all over the world. Blockchain technology has made this ambitious goal a fact, allowing the entire supply chain of the main Italian PDO dairy product to be recorded in a precise, secure, and immutable way. The Torre Pallavicina dairy, a cooperative of 21 milk-producing companies, is the first to guarantee the traceability of the Grana Padano PDO supply chain via the use of blockchain.

The Torre Pallavicina project is substantially different from other traditional projects, including those that involve some form of blockchain. Among the differences is the Torre Pallavicina use of ChoralChain digital compliance platform on the Algorand blockchain. ChoralChain technology embeds ten "smart contracts" along the supply chain, starting with the fodder and feed used in farms, continuing through the transfer of milk by tankers, then onto production inside the dairy, ending with the storage and aging of the wheels of Grana Padano. As the product evolves, a smart contract automatically receives data from electronic sources, in real-time, and performs checks on data validity. Should these not comply within set parameters, the system sends an alert notification.

ChoralChain also incorporates a simple app for use by dairy farmers to enter animal feed data into the system, GPS devices on tankers' track routes, timetables, and journeys of the daily milk round. Within the dairy, each individual production lot is identified and mapped. All information for each single wheel is associated with a casein plaque or plate (a disk with an alphanumeric code) provided by the Grana Padano Protection Consortium. And while the cheese wheels age within a warehouse, AI-based technology allows for viewing of the casein plaque, distinguishing each wheel of Grana Padano.

Each smart contract creates an NFT digital certificate on the Algorand blockchain. Consequently, ten NFT digital certificates are associated with each wheel of Grana Padano which are identified with the casein plate. ChoralChain also creates two NFTs, which Torre Pallavicina makes available to customers and consumers. This approach also ensures interoperability with other blockchains.

"It is a guarantee for all our customers," explains Gianmaria Bettoni, President of Torre Pallavicina. "We have created the digital identity card of the product: the complete digitization of the supply chain. The use of blockchain makes it possible to trace all the sensitive data of the supply chain on an immutable register, guaranteeing access to all parties in the supply chain, including consumers.



We are therefore able to ensure the highest levels of transparency, especially for the origin and quality of our production, generating trust and therefore value and distinction of our Grana Padano. In our solution, no alterations or modifications can be applied and the simple reading of the casein plate allows to identify each single product, associating it with its own digital certificate. It is also an open blockchain, able to communicate and interconnect with other blockchain ecosystems both downstream and upstream of the supply chain."

To carry out the Torre Pallavicina project, we chose the best partners on the world market today: Euranet, Algorand and CSQA. The model was developed using Euranet's ChoralChain platform on the Algorand public blockchain. Euranet is one of the top technological partners in the field of digital compliance and a leader in recognizing the intrinsic value of the blockchain as a potential source for digital transformation both for companies and processes.

"The use of ChoralChain helps to enhance traceability and to protect the certified production of the Torre Pallavicina dairy," states Gianpaolo Sara, President of Euranet. "It protects territorial authenticity and helps the consumer make an informed choice through NFTs generated on the Algorand blockchain. ChoralChain surpasses the manual and semi-manual information collection systems already used, which have proven to be time-consuming and vulnerable to tampering attempts."

Cosimo Bassi, Solutions Architect at Algorand adds, "It is quite significant that as an early adaptor, Torre Pallavicina has taken the lead in recognizing the transformative power of blockchain for its business via the use of the Euranet ChoralChain traceability solution. Algorand technology is open source and designed to be transparent, secure and fast: key components for any modern supply chain".

"For CSQA, a leading certification body in the agri-food sector, this is a pilot project," offers Michele Zema, CSQA Manager of Sales. "It focuses on the digital innovation of the supply chain of the first Italian PDO product, presenting as a model for the enhancement and excellence of all things 'Made in Italy'."

The project was presented on Friday, September 30th, as part of the B2Cheese in Bergamo, the B2B exhibition for the dairy industry.

Bergamo, 30 September 2022



PROFILES

CASEIFICIO TORRE PALLAVICINA

The Torre Pallavicina Dairy is located in the green fields of the Po Valley, in the Oglio Valley at the intersection of the provinces of Bergamo, Cremona and Brescia. The cooperative was founded on 7 June 1936 to protect the economic and moral interests of the members. In recent years, a substantial investment plan has allowed a modernization of the plant, technological and managerial innovation, equipping the dairy with modern and functional production units. It currently has 21 contributing member farms, two processing plants and is specialized in the production of Grana Padano PDO with the serial numbers BG 506 and BS 620, with a production of about 110,000 wheels per year. It holds all the main quality certifications including ISO 22005, BRC, IFS, DTP 122, ISO 50001. www.caseificiotorrepallavicina.it

EURANET

Euranet is an international consulting firm founded in 1997 specializing in compliance management. Euranet is also a leader in the supply of technological systems for digital compliance, having developed the blockchain solution ChoralChain 4.0. For more information, visit www.uranet.com and www.choralchain.com

ALGORAND

Algorand Inc. is a technology company dedicated to the development of the Algorand blockchain protocol. The Algorand blockchain represents an institutional level infrastructure for the representation and exchange of value, capable of achieving uncompromising decentralization, scalability, security, and is ecologically sustainable. Algorand Inc. has built a new generation of tools, products and services for the digital and fintech world, bringing assets on-chain and providing reliable privacy models. The Algorand blockchain protocol is open source, permissionless, based on a consensus algorithm called “pure proof-of-stake”. It was conceived by Professor Silvio Micali, winner of the Turing Award for his work in cryptography. For more information, visit www.algorand.com

CSQA

CSQA is a leading certification body in the agri-food sector, carrying out certification, inspection, assessment and training activities, active in the sectors of Agro-food and Packaging, Sustainability, Life Sciences, Health and Health, Training and Personal Services, IT Security, Public Administration, Educational, Technical, Tourist, Public Services, Forests, Wood and Paper. CSQA is the main certification body in Italy in the agricultural and food sector, with 71 controlled PDO, PGI, TSG products, and tens of thousands of companies certified voluntarily. www.csqa.it