

More sustainable, resilient, and competitive food systems through the development of intermediate food value chains



PRACTICE ABSTRACT No: 34

Blockchain traceability for Feta cheese

A FAIRCHAIN blockchain-based traceability platform for Greek PDO Feta cheese has been developed and it is in pilot phase. The platform monitors collection of the raw materials (milk), cheese production processes, and final product packaging. Quantitative data (pH and temperature, time, lab analysis results) are registered in the blockchain through monitoring of relevant processes, without inflicting disruptive changes to the food product .

Through blockchain we have achieved:

- Immutability as data registration is permanent,
- Decentralisation of the platform,
- Controlled level of transparency between stakeholders and consumers.

The combination of public and private chains overcomes the challenge of handling large and/or dynamically changing volumes of data in the blockchain. By design, the data-intensive transactions are performed in the private chain (based on Quorum), using the public infrastructure (Ethereum) for registering the Merkle roots to allow public access anchoring the private to the public chain.

This anchoring strategy

- Optimises the utilisation of blockchain resources
- Enhances transaction speed and
- Limits the number of transactions that involve costs.

In addition to memory rationalisation, efficient data coding techniques are employed. The risk of faulty data input at the edge of the infrastructure is mitigated through a verification mechanism involving supply chain actors, with potentially different interests.

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End Users

Consumer, Technology
provider

Country

Greece



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Links for additional information

FAIRCHAIN ([HTTPS://WWW.FAIRCHAIN-H2020.EU/](https://www.fairchain-h2020.eu/))

SYNELIXIS ([WWW.SYNELIXIS.COM](http://www.synelixis.com))

STYMFALIA ([HTTPS://STYMFALIA-SA.GR/](https://stymfalia-sa.gr/))

 www.fairchain-h2020.eu

 [FairchainEU](https://twitter.com/FairchainEU)

 [FAIRCHAIN EU](https://www.linkedin.com/company/fairchain-eu)

All Practice Abstracts prepared by FAIRCHAIN can be found [here!](#)

ABOUT FAIRCHAIN

The FAIRCHAIN project launched in 2020 and coordinated by INRAE, is developing intermediate food value chains in the fruits and vegetable and dairy sectors. Through technological, organizational and social innovations and by developing business models FAIRCHAIN will enable small and mid-size stakeholders to scale up to supply fresh, sustainable and high-quality food products to consumers at a regional level.

FAIRCHAIN PARTNERS



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