PROJECT REPORT

WIISE CHAIN

THE PUBLIC BLOCKCHAIN
FOR AGRI-FOOD TRACEABILITY

WORKABLE IDEAS & INITIATIVES
for a SUSTAINABLE ECONOMY

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THE PUBLIC BLOCKCHAIN

FOR AGRI-FOOD TRACEABILITY

THE PROJECT CHALLENGE:

In the global agrifood market, transparency and authenticity have become essential for consumer trust. However, many existing traceability solutions rely on "private blockchains" that function more as internal databases than true proof of integrity. For SMEs and "Made in Italy" producers, the hurdle was twofold: the need for an immutable "digital notarization" system that cannot be altered by the platform owner, and the requirement for a solution that is cost-effective and easy to integrate with legacy IT systems without the high overhead of complex tech migrations.

OUR CONTRIBUTION:

WIISE independently developed WIISE Chain, a proprietary technological asset designed to provide authentic, decentralized traceability. Moving beyond simple data entry, our team defined a system that leverages the Bitcoin protocol to record incorruptible data. We acted as the technical and legal architect, ensuring the solution met international standards for supply chain sustainability and food law.

WIISE contribution focused on:

- **Immutable Digital Notarization:** Implementing a public blockchain system where data, once recorded, is timestamped and unchangeable, providing absolute proof of origin and processing.

- **Interoperability:** Designing a technology-agnostic architecture that links with existing ERP systems (such as SAP or AS 400), allowing companies to implement blockchain utility without replacing their current files.

- **Legal & Ethical Frameworks:** Identifying legal requirements for traceability (ISO 22005) and defining KPIs for social sustainability, such as fair hourly pay and LCA (Life Cycle Assessment) data.

- **Strategic Market Education:** Publishing e-books and technical insights to educate operators on how blockchain can reduce "Operator Rating" in official controls and establish "trusted status" with authorities.

THE OUTCOME:

The WIISE Chain initiative has successfully established a robust proof of concept, demonstrating how high-level blockchain technology can be made accessible to micro-enterprises and SMEs. By designing a system that minimizes marginal implementation costs, the project lays the groundwork for small-scale virtuous operators to eventually showcase their integrity on an international stage. This initial phase proves that "Made in Italy" can move beyond a mere label toward a verified digital reality, where transparency is positioned as a measurable marketing asset and a tool for building long-term consumer trust, rather than just a regulatory obligation.

WHY PARTNER WITH WIISE?

Our development of the WIISE Chain asset demonstrates that we are the essential partner for digital transition and sustainability consortia requiring:

- **Technological Neutrality:** Proven expertise in developing neutral IT solutions that work with partners' current data formats, ensuring smooth integration in multi-actor EU projects.
- **Digital Integrity Mastery:** Unique experience in utilizing public blockchains for digital notarization, providing an incorruptible layer of trust for project data and supply chain claims.
- **Legal-IT Mediation:** The ability to translate complex technical protocols (Web 3.0, DLT) into robust legal frameworks that meet EU food safety and traceability standards.
- **Strategic Dissemination:** Direct access to established networks like **Great Italian Food Trade (GIFT)** and **Foodtimes.eu** to promote virtuous digital practices and ethical consumerism.

DIRECT CONTACT FOR PARTNERSHIPS:

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DETAILS ON THE WIISECHAIN WORK-IN-PROGRESS

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I. FACT SHEET

- **Full Project Title (Acronym):** WIISE Chain (The Real Made in Italy Blockchain)

- **Project Description:** WIISE Chain is an innovative IT architecture designed to provide an authentic public blockchain system for the agribusiness supply chain. Based on the Bitcoin protocol, it acts as a "digital notary" to record incorruptible data regarding product origin, safety, and sustainability (ESGs). The system is specifically designed to be interoperable with existing ERP systems (like SAP or AS 400), making high-level traceability affordable and accessible for SMEs and micro-enterprises.

- **Funding:** WIISE S.r.l. Benefit Company (Self-funded / Independent R&D)
- **Project Budget:** Private Investment.

- **Duration:**
    - **Launch Year:** 2019
    - **Status:** Active / Continuously evolving

- **Consortium:**
    - **WIISE S.r.l. Benefit Company** (Lead / Concept)
    - **ChainForFood** (Innovative Startup / Technical Partner)

- **Geographical Scope:**
    - **Origin:** Italy ("100% Made in Italy")
    - **Potential Reach:** global reach for B2B e-commerce (distributed via nodes across 5 continents)

    - **Application Areas:** "From seed to fork" traceability across Italian agri-food supply chains, including organic production, sustainable procurement, and circular economy validation.

II. MISSION AND OBJECTIVES

- **PROJECT SCOPE:** To consolidate trust in the "Made in Italy" brand and physical retail by providing a transparent, immutable system of integrity that validates ethical, social, and environmental sustainability efforts throughout the supply chain.

- **SPECIFIC OBJECTIVES:**

  1. **Digital Notarization:** Create a system where data is "digitally notarized" and cannot be changed without leaving a trace.

  2. **SME Accessibility:** Provide competitive costs to allow micro-enterprises and SMEs to access high-level blockchain technology.

  3. **Interoperability:** Ensure the system can merge data from existing ERPs (SAP, AS 400) and simple files (PDF/Excel) without needing new "IT cathedrals."

  4. **Regulatory Alignment:** Use the blockchain to simplify official public controls (Reg. EU 2017/625) by providing auditors with tamper-proof HACCP and traceability records.
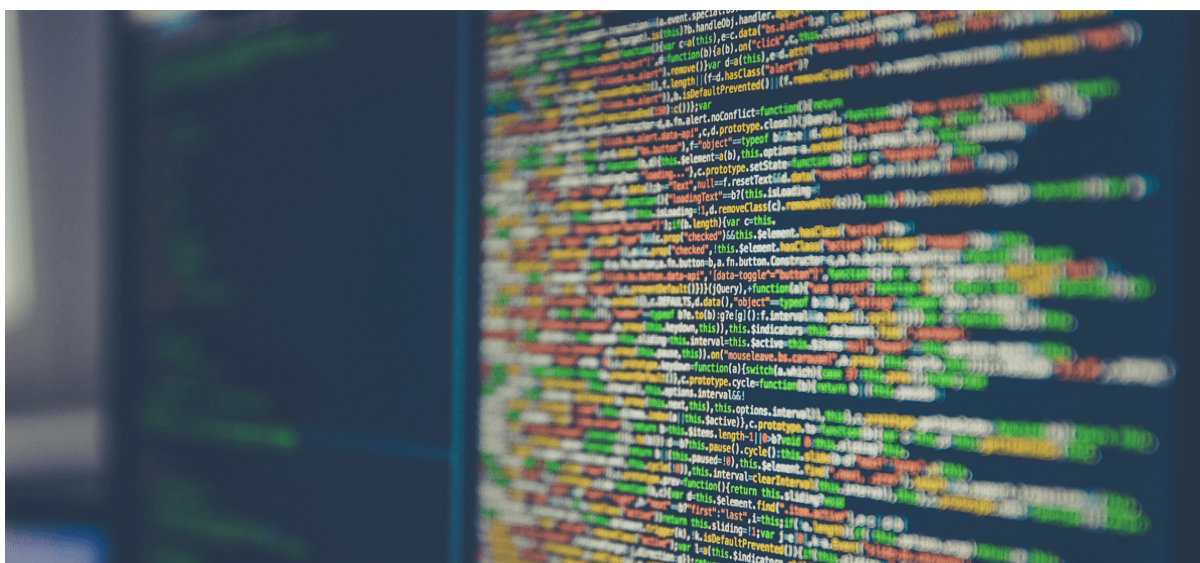
III. PROJECT RESULTS AND IMPACT

- **Key Project Outputs:**

  - **WIISE Chain DLT Platform:** A functional concept of a **Public Blockchain platform** based on the Bitcoin protocol.

  - **API Interoperability Layer:** An **inter-operation architecture** that links legacy registration ERP systems with the blockchain ledger.

  - A **multilingual B2B ecommerce showcase** tested in integration with the online platform GreatItalianFoodTrade.it

  - **"Sustainable Procurement" Framework:** A set of KPIs based on ISO 20400 for environmental and social impact assessment.

- **Expected Project Outcomes:**

  - **Increased Competitiveness:** Contributing to showcase how Made in Italy brands can objectively prove sustainability claims (LCA, Fair Pay, Organic origins).

  - **Optimized Official Controls:** Reduction in the frequency and intensity of audits for operators due to "notarized" self-control records (HACCP).

  - **Consumer Empowerment:** Enabled bottom-up pressure from consumers to reward ethical and sustainable supply chains.

IV. PROJECT ACTIVITIES

Activity	Activities Performed by WIISE
Analysis	Gap-analysis of supply chain KPIs and identification of "critical points" in traceability for Bitcoin protocol recording through regulatory mapping (ISO 22005, Reg. 2017/625) and sustainability KPI identification (ISO 20400).
R&D	Development of the integration between online portals of Made in Italy product (GIFT), and technical DLT protocols; Preliminary implementation of the interoperability layer for ERP systems.
Implementation	Technical-legal advice for supply chains to identify which data to record (from seed genetics to shelf rotation).
Engagement	Promotion of the "Cash Mob" ethics and "Buycott" campaigns to drive consumer demand for traced products.
Evaluation	Comparison of Proof of Work (Bitcoin) against centralized systems to ensure maximum security/incorruptibility.
Exploitation pilot	Concept and testing of a multilingual B2B e-commerce showcase for traced and ethical supply chains.

V. OPPORTUNITIES CREATED AND POTENTIAL VALUE FOR FUTURE PROJECTS

- **Applications:** Provided a blueprint for future Horizon Europe projects (like WASTELESS), proving that WIISE can deliver "digital notarization" for any environmental or social claim.

- **Value Proposition:** WIISE is the only partner capable of combining **Deep Food Law Expertise** with **Bitcoin-protocol DLT implementation**, ensuring that sustainability data is not just "recorded" but "legally robust."

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