Enhancing Supply Chain: Implementing Blockchain, IoT, and AI for Optimal Traceability and Control at Alianza Team

Challenge organisation

Alianza Team is a multi-latinamerican organization, leader in the world of lipids, nutrition and frozen bakery, wishing to contribute with experience in the production of food products for a better tomorrow with value-added solutions, generating a positive impact on our customers and consumers as well as on the environment. We have 4 lines of business which help us meet the different needs of our consumers and consumers, always anticipating the market: BredenMaster, Team Solutions, Team Caribe and Team Foods.

Full description

Alianza Team, a leader in food solutions in Colombia, Chile and Mexico, initiates a key transformation focused on the traceability of raw materials. The strategic challenge is to implement digital technologies - blockchain, Internet of Things (IoT), Sensorica, data analytics and artificial intelligence-to achieve comprehensive control and accurate monitoring of quality and processes at each stage of the production chain, from raw materials to the final product.

The main objective is to improve the quality of the final product by early identification of possible failures in the production processes. Detailed traceability will enable Alianza Team to recognize the origin of errors or inputs that may affect quality, thus raising standards of excellence throughout the supply chain.

The challenge proposes a pilot approach, prioritizing one product and its respective raw material suppliers. The implementation of a comprehensive raw material traceability system is essential for a thorough understanding of each stage of the production chain. The technological solution is intended to know the specific origin of each component, from its origin to its arrival at the production plant.

Upon arrival at the plant, traceability systems may be employed to meticulously document the conditions of each incoming raw material. Variables like temperature, humidity, and storage times are recorded, ensuring the maintenance of quality and safety throughout their tenure at the facility.

This traceability extends to the final production phase, where the integration of each raw material is closely monitored. The objective is to comprehend its interactions with other ingredients, the proportions in which they are mixed, and how these factors influence the quality and characteristics of the end product.

Beyond ensuring the quality of Alianza Team's products, this traceability approach serves to proactively identify anomalies or inputs that could adversely affect the final result.

Comprehensive information on the origin and handling of raw materials enhances transparency in the production chain, upholding the company's high standards of excellence.

This project not only aims to develop a validated technological solution tailored to Alianza Team's needs but also lays the groundwork for future expansion to other products and suppliers.

This initiative not only represents a technological evolution, but also a commitment to continuous improvement and transparency in the production chain. Alianza Team, through this transformation, seeks to consolidate its position as a benchmark in the industry, standing out for its ability to offer superior quality products and promote sustainable practices throughout its production chain.

What we are looking for

Alianza Team is looking for a technology solver who can successfully meet the challenge of implementing a comprehensive raw material traceability system throughout our production chain. The ideal technological partner must meet the following requirements:

- Experience in Traceability Technology Implementation: The solver must have proven experience in the successful implementation of traceability technologies in the supply chain, preferably in the food sector or similar industries.

- Emerging Technologies Competency: Solid experience in dealing with emerging technologies such as blockchain, Internet of Things (IoT), Sensorica, data analytics and artificial intelligence, critical for effective traceability implementation, is required.

- Adaptability and Scalability: The proposed solution must be highly adaptable and scalable to meet Alianza Team's specific needs. It must be able to grow as the traceability implementation expands across multiple products and suppliers while being economically competitive and supporting the business model.

- Systems Integration Capability: The solver must demonstrate experience in effective systems integration, ensuring a seamless connection between the technologies used and our existing systems.

- Focus on Security and Data Protection: Information security and data protection are critical. The solver must ensure that robust measures are in place to protect the integrity and confidentiality of traceability data.

- Ability to Integrate Complex Data: The candidate company must demonstrate skills in complex data integration and analysis, with the ability to work with data sets from a variety of sources and formats.

- Commitment to Collaboration and Knowledge Transfer: Willingness to collaborate closely with the Alianza Team and transfer knowledge is crucial. The solver must be open to sharing best practices and training internal staff on effective traceability management.

By meeting these requirements, the solver will demonstrate their ability to be an effective technology partner in the implementation of raw material traceability, contributing significantly to the success of the project and the achievement of Alianza Team's strategic objectives.

What we offer

Alianza Team is committed to providing the solver with a collaborative environment and benefits that will support joint success in the implementation of commodity traceability. The key offerings are highlighted below:

- Access to Exclusive Production Data and Conditions: We will provide full access to our proprietary operational data and production conditions. This includes detailed information on our processes, raw materials, and the specific conditions in which we operate.

- Active Participation in the Pilot: Alianza Team commits to actively participate in the pilot phase of the project, prioritizing a product and its key suppliers. This will allow for an effective implementation tailored to our operational needs.

- Continuous Feedback and Joint Evaluation: We will provide continuous feedback during all phases of the project. We will work hand in hand with the solver to jointly evaluate the performance of the proposed solution and adjust it as needed.

- Visibility and Recognition: The solver will be recognized as a strategic partner in our communications and industry events. We will highlight the solver's contribution to our pursuit of traceability excellence.

- Potential for Long-Term Collaboration: If successful, we will explore opportunities for long-term collaboration. This could include expansion of the traceability solution to other products and suppliers, as well as participation in future technology innovation projects.

By taking advantage of these offers, Alianza Team seeks to establish a strong and mutually beneficial collaborative relationship with the solver, ensuring that the project achieves its strategic objectives and contributes to joint success in the implementation of commodity traceability.
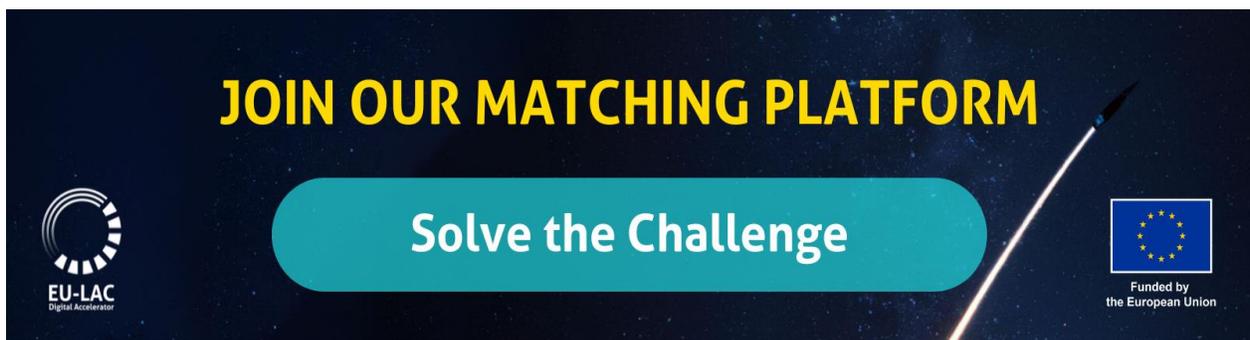
Other

Opportunity area	Smart production
Looking for partners in	Europe; Caribbean
Specific Areas	Food & Beverage
Technologies	Blockchain; Big Data Analytics; Modelling & Digital Twin; Artificial Intelligence; Machine learning

This is a challenge identified by the EU-LAC Digital Accelerator team in the frame of the Call for Challenges. The mission is to connect challenges from corporates with solutions from startups to boost digital transformation in Europe, Latin America and the Caribbean. If you are interested to learn more about us, visit our website.

If you are a startup with a digital solution willing to explore collaboration opportunities with this corporate, **join our matching platform and let the open innovation game start!**

If you are called by this challenge but have questions, do not hesitate to contact us.

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