TRUSTyFOOD



The Problem

Blockchain is an emerging technology, which has received much attention in recent years. Nowadays many people praise blockchain technology (BCT), but very few have a thorough knowledge of the topic.

On the one hand, academic and general public debates argue that the blockchain is all hype and still hasn't proven its reliability across most industries and that the buzz around this technology has simply been generated to attract investments.

On the other hand, experts in the field declare that BCT is a technology that is almost certain to have profound societal and economic impact in the next five years.

Potentially, BCT is a good candidate to address some of the actual problems related to agri-food supply chains: it can guarantee the transparency, verifiability and immutability of traceable data, thus simplifying the information shared between the supply chain entities often belonging to distinct administrative organizations.

The Approach

The project intends to arrive at draw up a R&I Roadmap for BCT in the Agri-food sector to prepare the way for R&I activities for the decade to come, based on consolidated and balanced stakeholder views and relied on systematic monitoring and reviews of national, European and international R&I pilots/use cases, experiences and best practices.

An exhaustive analysis of the context and an active involvement of users will take place for the identification of needs and use cases, which will be subsequently translated into operational requirements for services in some way generated and co-created together with people who will use them, as direct or indirect users.

The project will investigate and discuss both technical aspects through the involvement of experts as well as non-technical barriers to BCTs deployment, the main focus being on its acceptance from farmers and all the other supply chain players, mitigation of the environmental impact and ensuring finance for adoption.

Other issues fostering BCTs deployment will be considered, such as interoperability, innovative business models, standardisation and regulatory issues.

At the same time, the proposal intends to provide to users some a framework of services (and guidelines) for empowering them in future BCT implementation.

.....

The Project

TRUSTyFOOD intends to support the Strategic Research Agenda of the future joint research program on the subject of Blockchain by shedding light on the current partial and fragmented picture of BCT applications in the agri-food domain, by clarifying the benefits and opportunities which BCT can concretely to stakeholders throughout the food chain offer and by providing the most suitable tool to each targeted stakeholder for prompt, easy and effective implementation in their own context.





Figure 1. Geographical position of project partners.

Figure 2. TRUSTyFOOD Platform.

Institute for Bio-economy &

ibo | CERTH

6th km CharilaouThermi Rd. 57001 | Thermi | Thessaloniki | Greece www.ibo.certh.gr | www.certh.gr

Objectives

To reach this ambitious goal, the following intermediate objectives are identified:

- Mapping and assessing as-is and to-be BCTs applications through primarily public data sources as well as existing use cases from different domains
- Networking of actors and initiatives
- Identification of new business models
- Identification of tools and methodologies BC-based towards transaction costs and administrative burdens' reduction
- Identification of the potential of blockchain in fostering sustainable economic development, addressing climate change, and supporting the New European Green Deal
- Set up of Innovation pathways for agri-food blockchain implementation
- Innovative framework of services for prompt, easy and effective application

Expected Impacts

- An increase in funding for R&I through grants and supporting investments (according to the approach: leaving no one behind)
- Sharing its mid-term key Research and Innovation priorities, R&I Roadmap lays the groundwork for a wider and gradual transition towards an agri-food sector guided by blockchain
- Power distributed along the agri-food supply chain between actors and not anymore in the hands of few big actors; fair and tracked economic returns for farmers
- Reduced transaction costs and administrative burdens
- A new and receptive market for BCTs
- Revision of food system's organization and governance, trust and relationships through new Business Models
- · Legal certainty and a clear regulatory regime in areas relating to blockchain-based applications
- Increased trust of consumer thanks to transparency in operations carried out along the food supply chain
- Safer food supply chain: good health (no frauds, no risks for health)
 - Climate change mitigation and adaptation

The Project Partners

Contact:

Dr. Georgios Banias

g.banias@certh.gr | +30 2311 257650

Researcher



ERTH

HELLAS