



Agriculture

16 February 2023 - 09:00-11:00

DIGITAL TECHNOLOGIES UPTAKE IN ORDER TO SUPPORT THE FUTURE OF THE FOOD SYSTEM



A range of digital technologies in the food system are already leading to better informed and engaged consumers and producers, smarter farms and improved public services. These technologies range from simple off-line farmer advisory digital videos to complex systems such as distributed ledger technologies for value chain traceability and forms of precision agriculture. This masterclass will showcase how blockchain technology provides traceability, security and decentralization when dealing with data around food and how farm management systems help farmers optimize production activities and operations on their farms.

Topics to be covered:

- **Blockchain traceability system in the supply chain**
- **Decision support system for farm management**

Programme

09.00 **Welcome and Introduction** by Darja Kukovic, Project manager, ITC Cluster

ITC Cluster aims at fostering cross-sectoral innovation, based upon novel technologies and ICT, while bringing together SMEs and other institutions from different sectors and turn them into being "Smart". Their DIH AGRIFOOD represents a One-Stop-Shop providing services to target groups (farmers, food producers, associations, SFSCs) through a Multi-Actor cooperation. ITC Cluster is partner in GLOBAL FOODTURE project.

09.05 **General presentation of the blockchain traceability system (15 min)**

Prof. Muhamed Turkanovic, University of Maribor – Blockchain Lab:UM:
Digitalising traceability systems using blockchain technology as the natural technology go to

Blockchain Lab:UM is a multi-disciplinary R&D team of researchers, developers and consultants that design, develop and evaluate blockchain-based solutions and services. Their activities are aimed at promoting, encouraging and fostering the adoption of blockchain technologies in the development of innovative information solutions and services supporting new and disruptive business models. Their mission is to assist companies in their digital transformation initiatives by supplying with high quality, modern and applicable knowledge enriched with good BC-related development & business practices. A special emphasis is on providing high quality blockchain solutions.

09.20 - 9.50 **Presentations of use cases (10 min)**

- Mateja Dermastia, ANTEJA: Use applications of blockchain in biovalorization

Anteja is a sustainability consultancy, specialized in design and implementation of innovation strategies and circular business models. Anteja provides advice and develops disruptive solutions to accelerate the transition to circular economy and bioeconomy on a global scale. Backed by blockchain, their solutions boost transparency and traceability of existing supply chains, helping companies become more sustainable and efficient.

- Tomaž Levak, Trace Labs - OriginTrail Core Developers: Trust and transparency of data in food supply chain using OriginTrail DKG

With its Web3, ORIGINTRAIL represents the next phase of the Internet, and the world's physical and digital assets are transitioning to this decentralized blockchain-based

ecosystem. With assets being organized, verifiable and interconnected, everyone is able to transact and claim ownership to these assets. Trace Labs is building crucial infrastructure for the omniverse of technologies and data sources existing in Web3, transforming raw data into connected knowledge.

- Gary Loh, DiMuto: AI-Powered Global AgriFood Trade with Visibility & Finance

DiMuto simplifies every step of global trade – from produce, trade to market, provision of sales, marketing, operations, financing and insurance tools so businesses can trade better. By capturing the data, we can demystify global trade, simplify operations for greater efficiency and establish winning outcomes for all stakeholders.

09:50 **End of Master Class 1 and start of Master Class 2**

09.55 **Introduction to masterclass 2 by Darja Kukovic, Project Manager, ITC**

10.00 **General presentation of decision support systems for farm management (15 min)**

- Antonija Šošćarić, AGRIVI: Focusing on sustainable business with AGRIVI

The AGRIVI approach to solving the global food problem is through the digitalization of agriculture, that is, by switching the farmer's decision-making reliant on traditional practices and historical knowledge to the new data-driven and fact-based decision-making empowered by best-growing practices and real-time agronomic insights available using technology. They have built a comprehensive suite of digital agriculture solutions for farms, food companies, agribusiness banks, ministries of agriculture and other important stakeholders of the agri-food value chain to support them in adopting the change and empower their digital transformation projects.

10.15 - 10.45 **Presentations of use cases (10 min)**

- Senka Gajinov/Srdjan Krco, DUNAVNET: agroNET: from optimizing farm operations to monetizing farm data

DunavNET is a provider of turnkey solutions based on IoT and ML/AI technologies for several industrial sectors, of which the most important ones are agriculture and manufacturing. Their portfolio of solutions is built using standardized, enterprise-grade technologies, and components, leveraging the established collaborations and partnerships with the leading global cloud, IoT and AI platform provider companies. They actively work with and contribute to the international research and innovation community and support young researchers and innovators.

- Zoltan Tarr, CUBILOG: Data based precision livestock farming

CUBILOG provides data collection and processing services for livestock farms and industrial plants with their own developed tools and software application and an experienced professional team. With this, they support energy savings, cost efficiency, production optimization, damage prevention and labor management.

- Takanori Nagano, Graduate School of Agricultural Sciences, Kobe University: Design of an agricultural information system for the Asian Monsoon region

Rice is a staple food of many Asian countries. Productive rice cultivated areas are often situated in deltas which are subject to increased occurrence of severe flood damage and saltwater intrusion due to climate change today. The project MARWAM-Asia (2021-2023) is a scientific project among three countries (Japan, Vietnam and Indonesia) to develop a common water management platform, to mitigate flood damage during the rainy season and saltwater intrusion during the dry season to realize sustainable rice production in low lying areas.

10.45 **End of Master Class 2 and Q & A - Wrap & Closing by Darja Kukovic, Project manager, ITC**

11:00 **End of Thematic Workshop**