



LOCATION



Serbia, Slovenia and Montenegro

PARTNERS

DNET Labs



5.4

Transparent Supply Chain in the Poultry Industry

CHALLENGE

The supply chain in the poultry industry is well developed with several stakeholders involved. However, there is a lack of information about chicken wellbeing, medical treatment, feeding patterns etc., which is required by stakeholders, especially consumers. Even if some of this information is available, it is isolated and lacks an integrated overview of the complete supply chain, from the breeding process to retail and consumers.

Providing insights into the whole meat production process including information from all the involved stakeholders is a key challenge. Information about each step of chicken production, from feed intake, medical treatments, conditions provided during the production, resources used, feed origin etc. must be collected and recorded, enabling a transparent supply chain.

AIM

This pilot focuses on the supply part of the poultry industry. It will enable information sharing about animal wellbeing and resources used during production, thus creating the basis of a transparent supply chain.



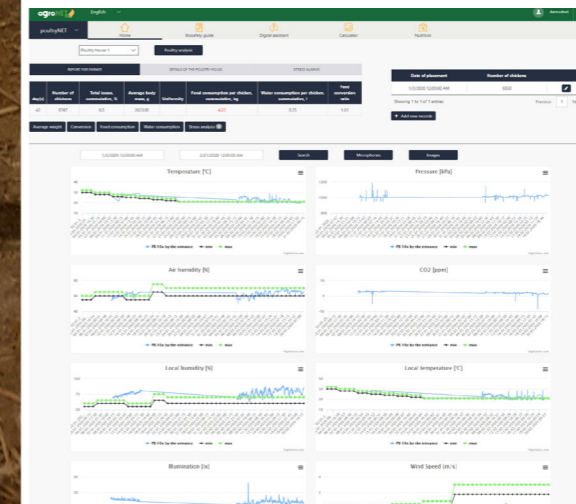
HOW

DNET's poultryNET platform will be used for gathering data from the breeding process perspective, including the amount of feed. Inputs and feedback from the farmer will be used to improve and validate the functionality. The outputs of poultryNET will be combined with information provided by fleet management systems from transport companies delivering the feed and transporting chicken.

The pilot will investigate the required granularity of data to be collected, its lifespan, as well as technical implications of processing such potentially large amounts of data. A blockchain-based data exchange protocol (OriginTrail) will be used to ensure trust and transparency between actors and integrity of the data exchanged in the value chain.

BENEFIT

The pilot will deliver increased transparency of the complete supply chain, providing trustworthy information to consumers about the production process.





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DEMETER Integration

Pilot 5.4 integrates various solutions to address the challenge of limited information across the poultry industry's supply chain. Key technologies employed include poultryNET platform for data collection, fleetNET for animal transit information, Product passport for standardized production batch identities, and OriginTrail DKG for trust, transparency, and data integrity. By utilizing OriginTrail DKG, the pilot enhances the trustworthiness and transparency of data exchanged in the value chain. Integration efforts focus on elements and parameters that represent production batch quality and leverage the AIM standard for data collection and processing. The product passport solution, with unique item-level identifiers and Knowledge Assets on the OriginTrail DKG, enables traceability and consumer access to supply chain information.



Feedback From Farmers

Pilot 5.4 engaged with farmers through Multi Actor Approach (MAA) activities, including meetings, workshops, and farm field days. Farmers expressed their satisfaction of the solution and even decided to expand the application of the solution on their farms. Their input highlighted the importance of monitoring environmental conditions during chicken transportation one day and ensuring data transparency throughout the supply chain. The solution helped them to decrease losses during transportation and provide transparency to relevant stakeholders.

Farmers found the solution to be very useful when sharing specific data gathered through the production line to relevant stakeholders. They see it as a tool to outline their skillset and also as a means to improve their production and transportation process.

Outcomes

The main outcomes include validated solutions that ensure transparency in the supply chain and automate activity recording, making reporting to stakeholders easier. With these solutions, consumers can now access crucial information about the breeding process, resource usage, and the treatment of chickens. Moreover, farmers can efficiently manage the entire process, providing transparency to important stakeholders such as broiler producers, slaughterhouses, and consumers. Moving forward, further plans involve expanding user adoption, continually improving based on feedback, and utilizing the solution's adaptability and compliance with industry standards.

