IOF2020 DAIRY TRIAL EXPERIENCES

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IoF2020 Solutions for Farmers: How IoT helps your Farming Activity? (LSP)
IoT week Aarhus: June 19th 2019
Short introduction of IoF20 Dairy Trial

Complex (inter)national food production chains

IoF2020 – Large Scale Pilot

Overall concept for 4 year, 30M€ project
Expected SYNERGY between USE CASES
Overall methodology

- Technology chair
  - Improvements
  - Fine tuning

- Ecosystem chair
  - End User Feedback
  - Involvement & co-creation

- Business chair
  - KPI Evaluation
  - Measurement & monitoring
The goal of the DAIRY trial is to implement, experience and demonstrate in some EU-countries the use of real-time sensor data from ‘grass to glass’ to create value in the dairy chain by applying the FAIR (Findable, Accessible, Interoperable, Reliable) principle. It will benefit health, welfare, environment and resource efficiency.
IoF20 Dairy Trial Status in 2019

- UC oriented
- Between MVP1 and MVP2
- Implemented on first farms
- In open call 3 use cases added

Data platform (365Farmnet)
(app, real time sensor data cow centric, chain oriented)

Findable, Accessible

Reliable
Remote Milk Quality
(UC2.4)
(food processing, quality systems)

Grazing Cow Monitor (UC2.1)
(location of cows in a free grazing environment)

Interoperable
Happy Cow
(UC2.2)
(cloud based service, feed efficiency, early warning)

Interoperable
Silent Herdsman
(UC2.3)
(cloud based service, feed efficiency, early warning)

UC2.5: Lameness Detection through Machine Learning
(Ireland, Waterford Institute of Technology)

UC2.6: Precision Mineral Supplementation
(Denmark, Organe Institute ApS)

UC2.7: Moonsyst Smart Monitoring system for dairy and beef cattle
(Hungary, Moonsyst)
Key performance indicators:

- **Economic**
  - Productivity increase
  - Efficiency improvement
  - Cost reduction
  - Quality improvements

- **Environmental**
  - Lower input
  - Lower impact

- **Social**
  - Ease of work
  - Public health
Use Case 2.2. Happy Cow Impact

FARM 1: Netherlands

FARM 2: Belgium

Expected calving interval

Estrus has shown improvement in Farm 1, while results are inconclusive on Farm 2.
Discussion points

▪ IoT implementation in products and services is:
  1. Easy
  2. Complicated
  3. (hardly) Impossible

▪ Implementation of IoT-products and services in practice and show benefits is:
  1. Easy
  2. Complicated
  3. (hardly) Impossible

▪ Building an IoT community to share knowledge and experiences is:
  1. Easy
  2. Complicated
  3. (hardly) Impossible
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