



IoT Week Smart Farming Track

IoT deployment and business challenges for the Agri-Food sector: what lies ahead?

Date & Time: Wednesday, 19 June 2019 at 11:15 – 12:30

Setup of the session:

- Introduction by moderator: 5min
- Presentation by each speaker: 7,5min x 4 = 30min
- Panel discussion: 30min
- Q&A with audience: 10min

IMPORTANT REMARK: Even so the programme foresees 10min of individual presentations, I recommend from earlier experiences at the IoT week to shorten the presentation time a little bit to 5-7min and reserve more time for the discussion and questions from the audience.

Format of presentation: Powerpoint or PDF (Chair will integrate the presentations into one)

REMARK: The session chair will create a framing presentation that introduces the topic as well as the speakers. Furthermore, the presentation will contain the questions to the panel and will also make use of mentimeter or slido. So please send any questions that you would like to point to the audience in your presentation or throughout the panel discussion to the chair in advance.

IoT Deployment and Business Challenges for the Agri-Food sector: what lies ahead?

The second pillar finds its roots in the first one and would aim at highlighting the different impacts that are expected to be delivered by integrating IoT in the agri-food chain. IoT technologies in the agri-food sector address a set of economic, societal and environmental challenges. The potential for the sector is huge, but the implementation of such disruptive technology faces many challenges such as interoperability of the data, certification and standardisation, re-usability of the components, etc...

How is IoF2020 dealing with these technical challenges? How is IoT implemented in the IoF2020 trials, how is data handled and what are the benefits for the agri-food sector?



Objectives of the panel and end-results:

- Identify challenges that are still holding back the uptake of IoT in the Agrifood sector
- Present IoF2020 activities like IoT catalogue, Sector Discussion Groups, Webinars, Policy Recommendations etc. that help counter these challenges
- Invite and motivate partners to join the IoF2020 movement like other initiative (EIT Food, SmartAgriHubs, Nefertiti, DataBio, Sweden etc.)

Order and structure of the session:

In this session, I would like to focus the audience a bit on the potentials of IoT services in the next 5 years ahead and show the disruptive possibilities precisely with IoF2020 use-cases as an example (but clearly not limited to it). So even so the session is on challenges, I clearly don't want to make it a series of problem descriptions.

By the composition of the panel we are approaching the deployment and business potentials of IoT quite a lot of different angles and would like to suggest the following distribution of topics:

- **Vision of the potential disruptive impact of IoT solutions on the agrifood sector**
Grigoris Chatzikostas, BioSense Institute
 - Draw a vision of the agrifood sector in 2050 throughout the full value chain
 - Indicate our current position in the development cycle and maybe identify breaks and accelerators for development
 - Showcase some impactful solutions from IoF2020 that have disruptive potential for their sector
- **How to enable seamless access to data from farm equipment from various manufacturers**
Claus Grøn Sørensen, Aarhus University
 - Key vision enabler is that data from different equipment manufacturers is easily accessible for service providers that the farmer intends to use on the farm
 - Present concept of the UC1.4 common API and the common data model (Adapt or already next version)
 - How can other manufacturers learn from the progress among arable machine manufacturers?
 - What is the vision for easy access to data from various machines on diversified farms (dairy, arable, meat etc.) with the various manufacturers (CNHi, Fancor, Big Dutchman, Lely etc.) in terms of technical implementation, but also data business models and data governance by the farmer



- **How to enhance the speed of development and validation of new IoT services and hardware**

Harald Sundmaeker, ATB

- Show how reusable components can reduce the development time of IoT solutions, enhance the interoperability and also increase the security of IoT application

- **Role of digital governments and FMIS service marketplaces**

Klaus-Herbert Rolf, 365FarmNet

- Future distribution of EU agricultural subsidies by ecological and social factors and not anymore by pure size of the farm
- Responsibility of governmental authorities in all member states to act digital role models and offer regulative data in standardize digital way, allow digital reporting and apply better controls by IoT
- Present your vision on future distribution of IoT service in the agrifood sector (Will it stay a fragmented market or will few FMIS prevail and function as platform providers in specific sectors)

Questions for the panel:

- Interoperability & data standard challenges
 - Give us an impression of the current data standard landscape and mention a sector in agrifood that in your opinion is currently offering the best data availability today.
 - How is the big issue of integrating legacy systems tackled in the agrifood sector?
 - In the future machine learning algorithms are predicted to be the source of knowledge creation and automation. With this idea in mind how is the agrifood sector addressing the challenge of providing data in high quality and accuracy to not fail train future algorithms?
- Technology validation & Impact
 - The current market for IoT services is vastly crowded and the end-users have very limited possibilities to objectively compare services and make an informed purchase decision. How can this issue be tackled?



- Business challenges
 - With the move to a more connected industries also dependencies grow among different actors in the value chain. How can service providers in the future assure that their business models are not jeopardized by ambitions of data providers like equipment manufacturers?
 - IoT is seen as a potential gamechanger that distributes parts of the bargaining power and margins back to the value producers rather than the logistical providers and retail. Do you see this happen somewhen soon?

Question to panel & audience:

- Still in preparation
- Please provide your questions to the chair as well