VISION OF THE POTENTIAL DISRUPTIVE IMPACT OF IoT SOLUTIONS ON THE AGRI-FOOD SECTOR

IoT deployment and business challenges for the Agri-Food sector
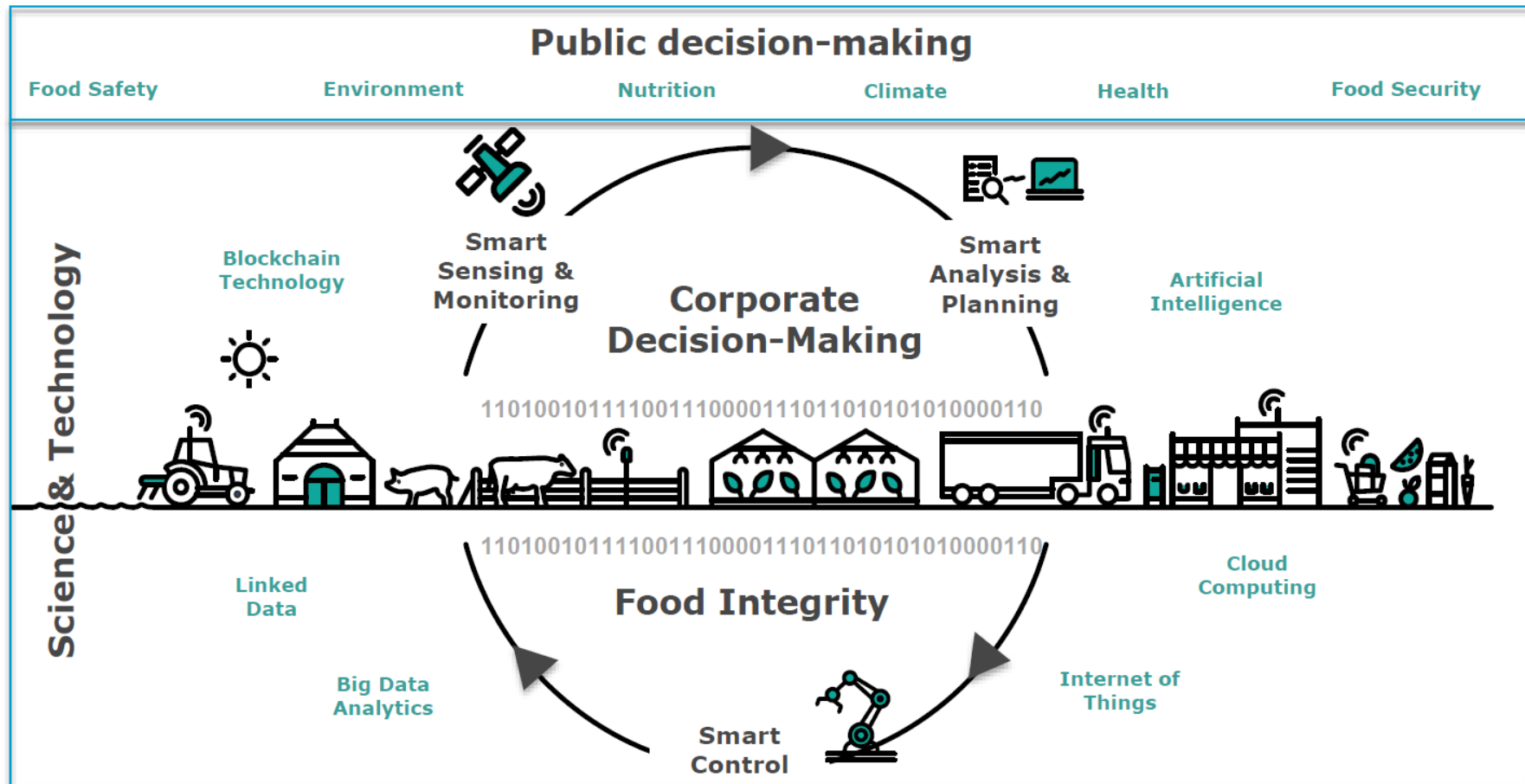
GRIGORIS CHATZIKOSTAS

June 19, 2019

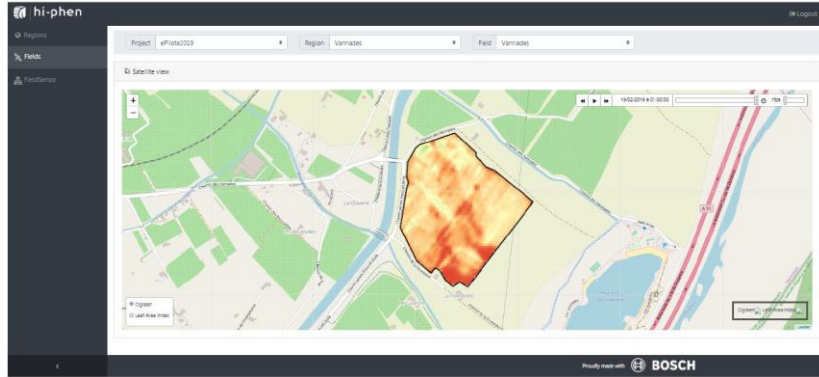# A VISION OF THE AGRI-FOOD SECTOR IN 2050 THROUGHOUT THE FULL VALUE CHAIN

The Digital Transformation of Agri-Food

Image source: SmartAgriHubs - Connecting the dots to unleash the innovation potential for digital transformation of the European agri-food sector, presentation of Sjaak Wolfert, SmartAgriHubs kick-off meeting, March 2019
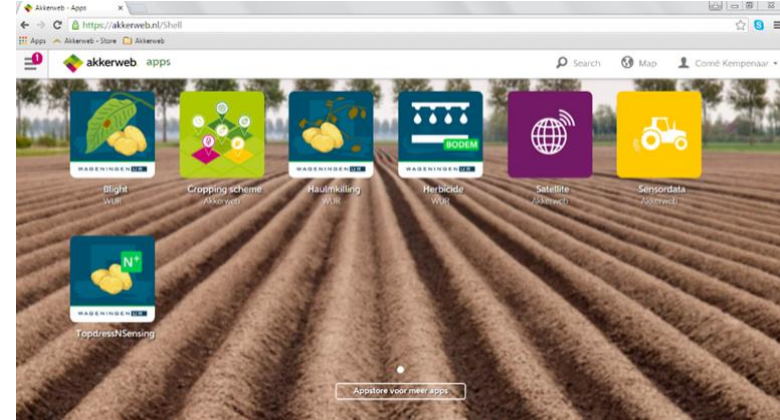
IoF2020 SOLUTIONS AND THEIR CURRENT POSITION IN THE DEVELOPMENT CYCLE

IoT SOLUTIONS FOR ARABLE FARMING

Crop monitoring dashboard

Akkerweb platform dashboard for soil mapping

Electrical conductivity scanner detecting clay content and organic matter for conductivity zoning

- Arable farming has 44 deployment sites
- Interoperability between farm machines and software is bridged
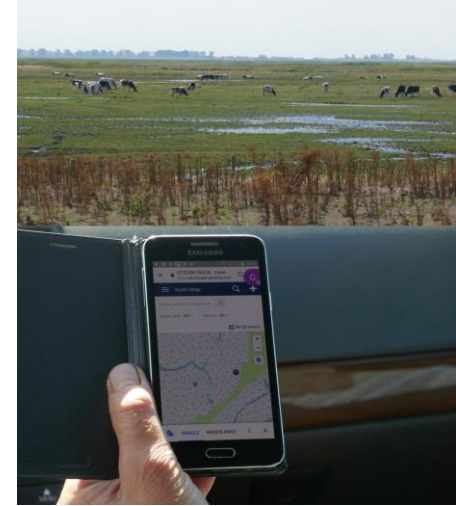
IoT SOLUTIONS FOR DAIRY FARMING

IoT for remote calibration support of milk samples to guarantee milk safety and quality

Radio and TV feature of artificial intelligence in dairy farming

Outdoor beef cattle tracking has rescued a trapped cow in a nature reserve area

- Connecterra raised additional €4.2m for dairy tech
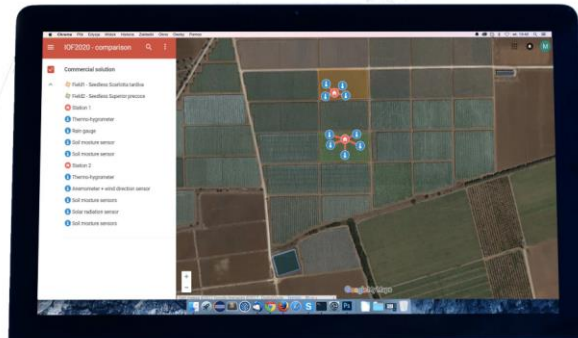- Dairy farming has 30 deployment sites around Europe

IoT SOLUTIONS FOR FRUIT
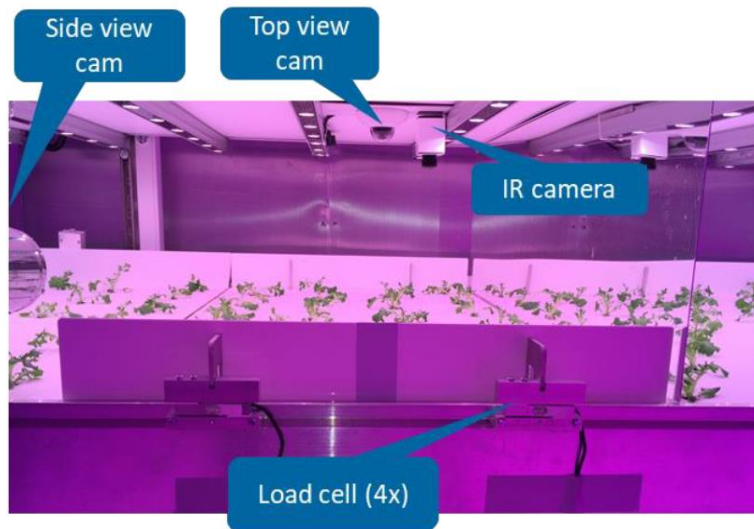

NFC tags for crop monitoring

IoT sensors

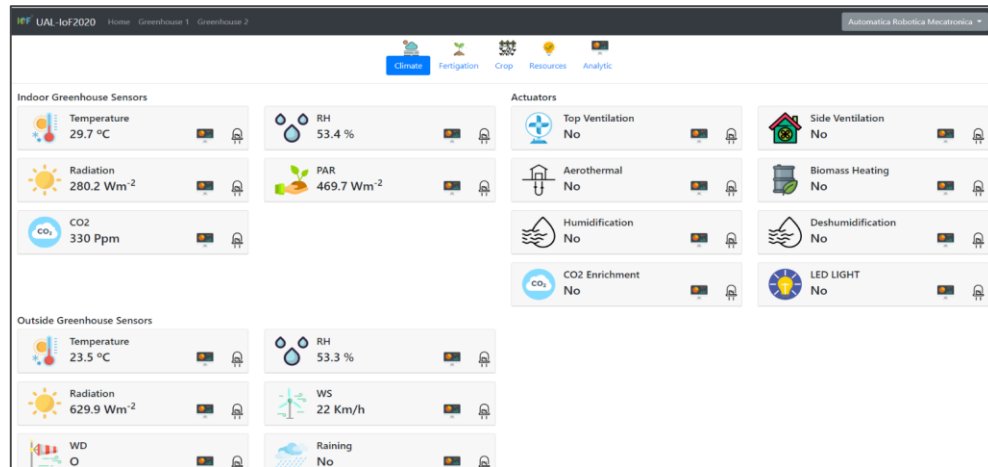Installations in Romanazzi farm – weather station under the vineyard canopy

- Fruit Trial has more than 50 deployment sites around Europe

- Wine shipping device (Jodyn Live) test extension to USA & China

- Strong Fruit Trial synergies and collaboration

- EuroPool performs large-scale experimentation in real supply chains

IoT SOLUTIONS FOR VEGETABLES

Sensors located in a growth layer in
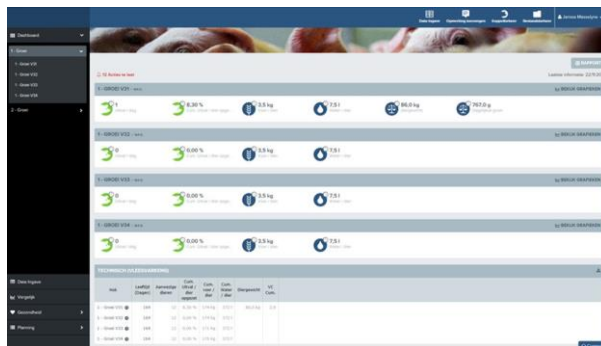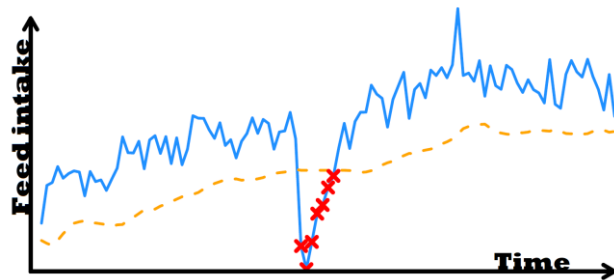one of the climate cells at Signify

Software tool interface showing greenhouse climate
monitored parameters

- Vegetables Trial has 29 deployment sites around Europe

- Full-controlled farming is operating under regulated conditions

- New crops introduced for weeding machines testing

8

IoT SOLUTIONS FOR MEAT

Alerts when the feed intake has dropped under the threshold

- Managed to optimize production, transport & processing of poultry meat

- IK4-TEKNIKER has launched novel transport sensor

- Meat Trial has more than 20 deployment sites

IoF2020 DEPLOYMENT SITES OVERVIEW
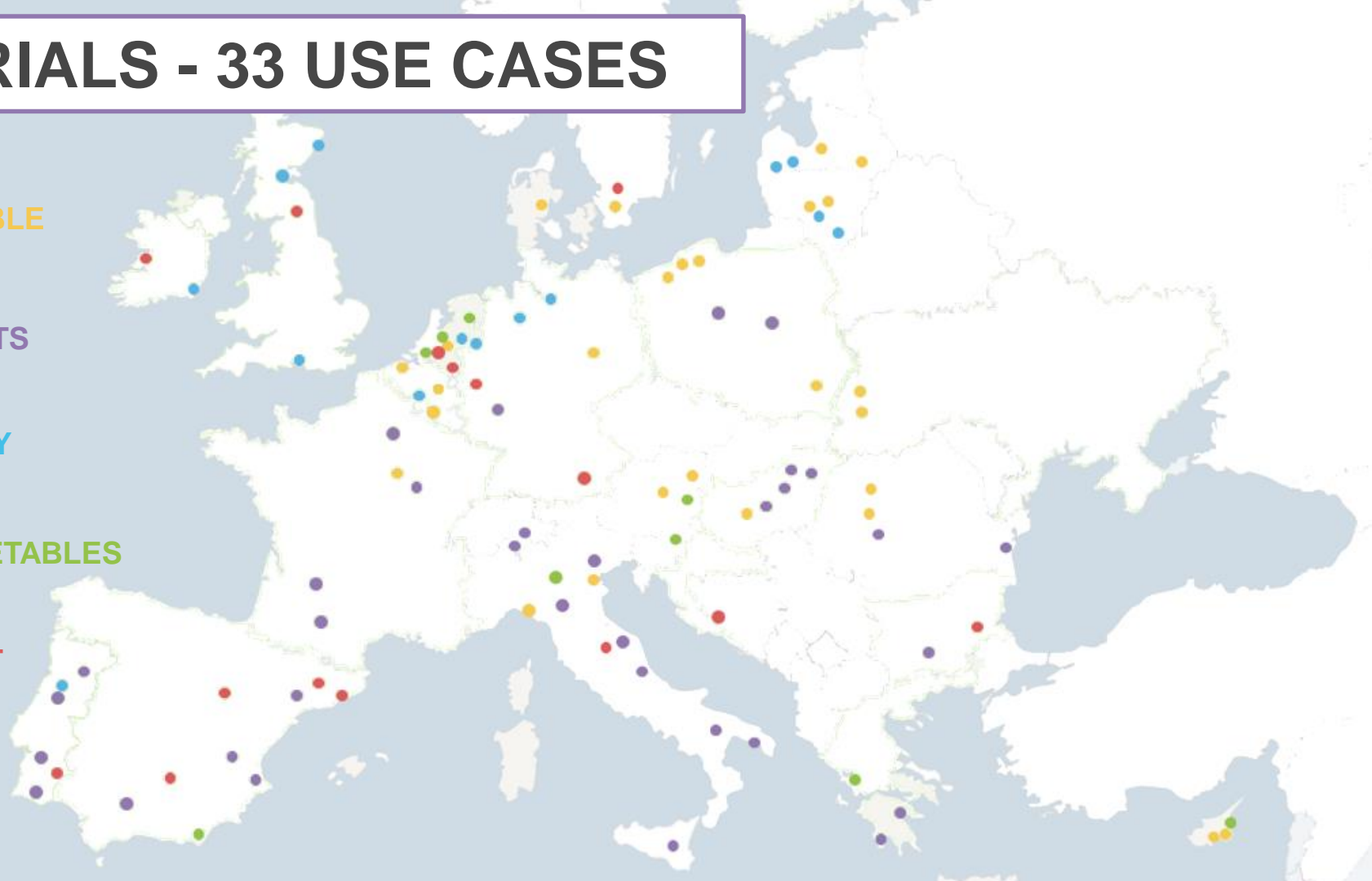
5 TRIALS - 33 USE CASES

ARABLE

FRUITS

DAIRY

VEGETABLES

MEAT

BREAKS AND ACCELERATORS FOR DEVELOPMENT

ACCELERATORS

- Increased awareness for food safety & transparency

- Ease of use and affordability, value-for-money, ROI, novel business models

- Vertical and horizontal integration across value chains, fear-of-missing-out
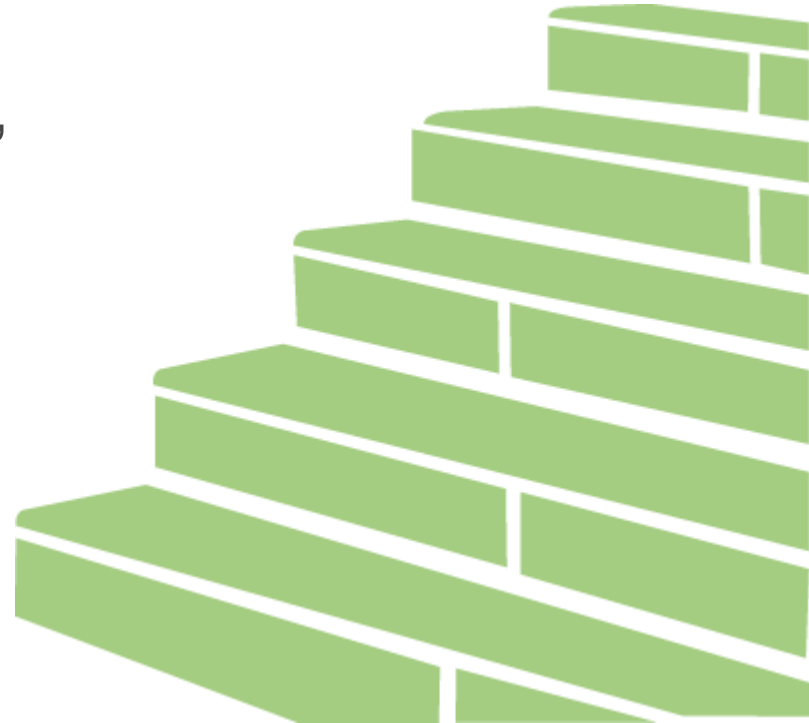
- Traction with investors

BREAKS

- Interoperability challenges

- Perceived security and privacy risks

- Data ownership issues

- Barriers on global trade of agri-food products

- Rural wireless and broadband coverage

NEXT STEPS

- Exploitation & monetization,
- Actively engaging with end-users,
- Scaling up,
- Global expansion.

THANK YOU

Any questions?

Grigoris Chatzikostas
chatzikostas@biosense.rs