Wageningen University & Research

NGIoT Thematic Workshop: Rural Smart Communities and Agrifood
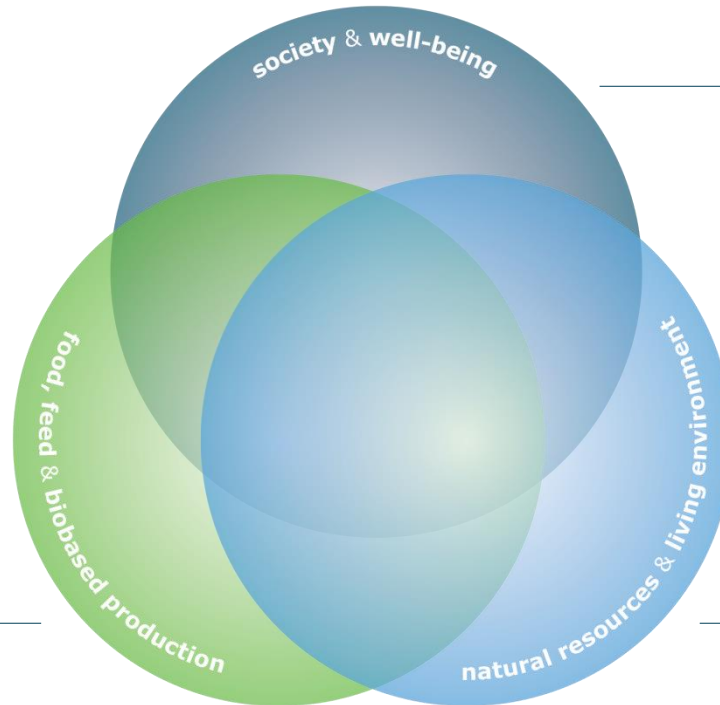
March 30th, 2021

Daoud Urdu

Wageningen's domain: Food and Living Environment

- Sustainable production and food processing
- Animal feed and biobased products
- International food chains and networks
- Food security and food health aspects

society & well-being

food, feed & biobased production

natural resources & living environment

- Food and Living environment
- Lifestyle
- Perceptions
- Governance
- Market and chains
- Social innovations

- Nature and landscape
- Land use
- Water, sea and natural resource management
- Biodiversity

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Partners

Wageningen University

Wageningen Research

- 12.337 BSc/MSc-students from > 100 countries
- About 2.000 PhD candidates
- 3.228 faculty and staff (2.838 fte)
- Revenue in 2019: € 385 miljoen
- WUR-ranking in Higher Education Selection Guide in full-time university education 2020: 1 (15 years running)
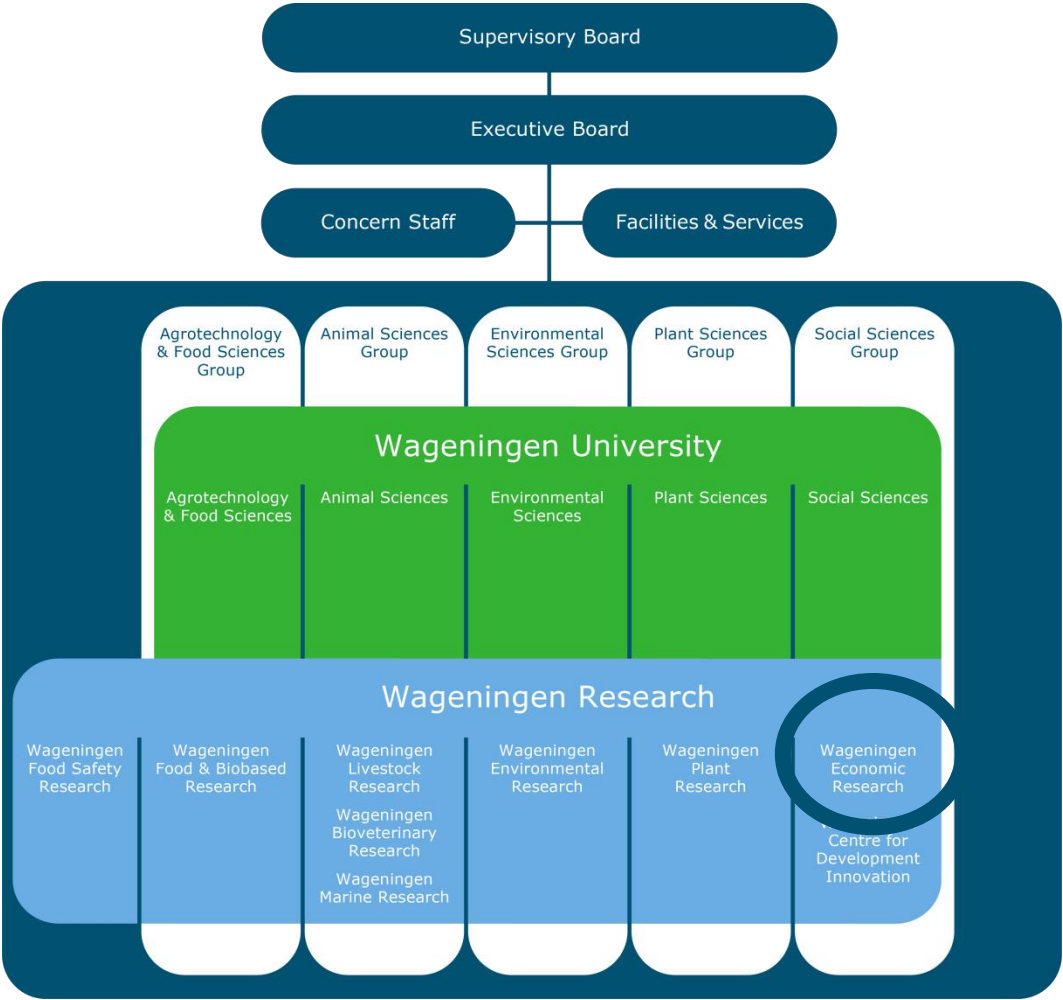
Partners

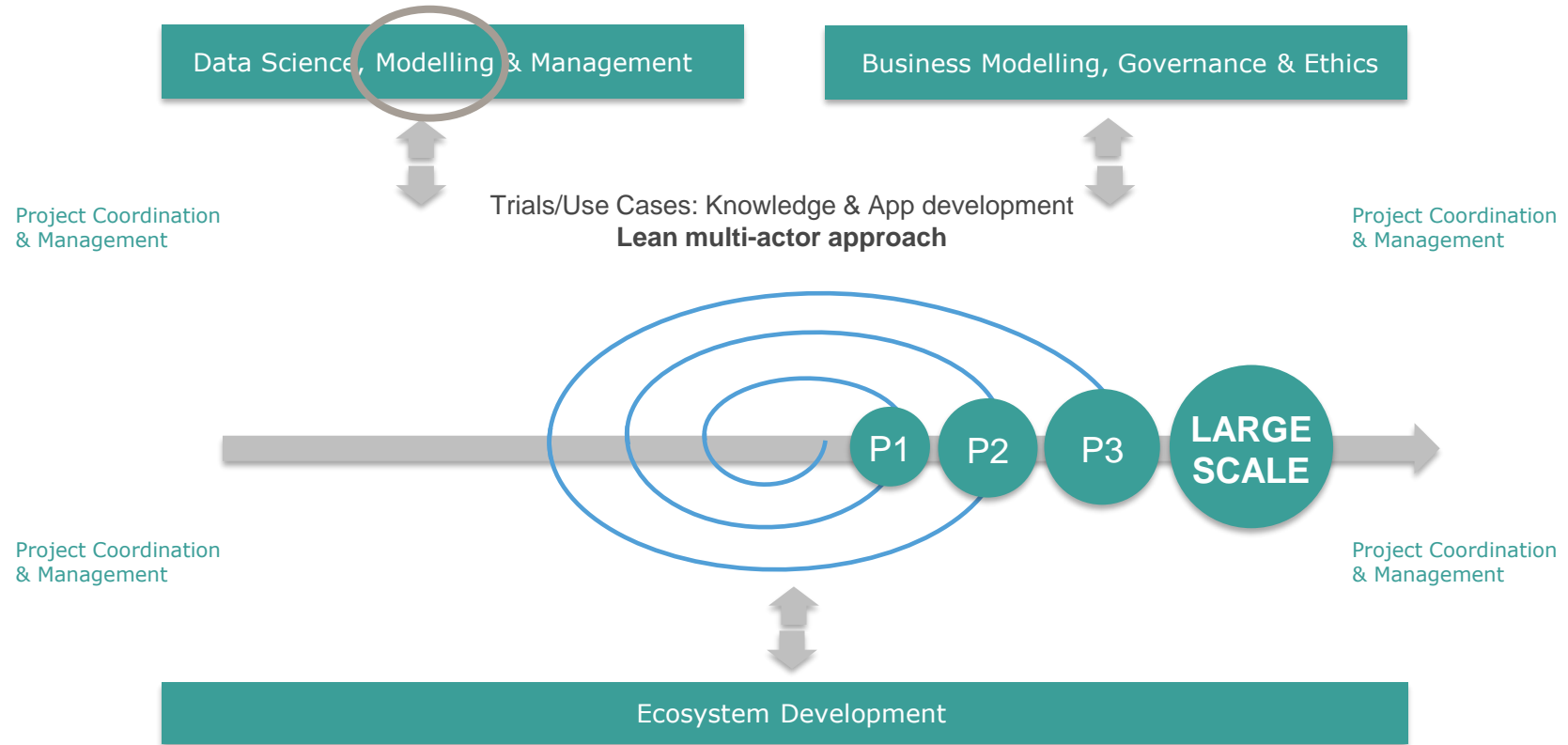Wageningen University

Wageningen Research

- 3.047 staff (2.787 fte)
- Revenue in 2019: € 344 million

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Organigram

A multidisciplinary, collaborative, agile approach

Data Science, Modelling & Management

Business Modelling, Governance & Ethics

Project Coordination & Management

Trials/Use Cases: Knowledge & App development
Lean multi-actor approach

Project Coordination & Management

P1 P2 P3 **LARGE SCALE**

Project Coordination & Management

Project Coordination & Management

Ecosystem Development

ECOSYSTEM & COLLABORATION SPACE

Verdouw, C.N., Wolfert, S., Beers, G., Sundmaeker, H., Chatzikostas, G., 2017. IOF2020: Fostering business and software ecosystems for large-scale uptake of IoT in food and farming, in: Nelson, W. (Ed.), The International Tri-Conference for Precision Agriculture in 2017, Hamilton, p. 7. http://doi.org/10.5281/zenodo.1002903

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IoF workshops: semantic interoperability

- December 2020: approach, succesess and challenges EU projects

- March 2021: processess and procedures of standardization and SI

- Involved community, but how to continue?

  - Roadmap with work packages with a common view on semantics
  - Impact around data models

Added value of a reference data model for the agro domain

A good architecture to develop new reference model fits for
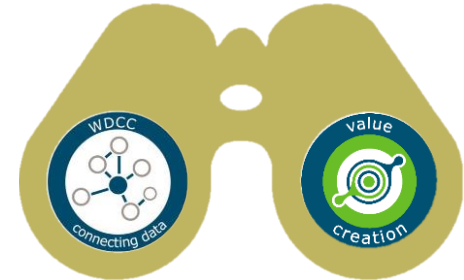
Research projects from different institutes

❖ Standardization optimum in the agro domain – Explicit governance and business model,

❖ Uniform data sharing - Sustainable maintance and use of the model,

❖ Safe Sensor data Structures - Novel technologies,

❖ Connect in a trusted way – FAIR guise

Who are our ambassadors?

Success stories

IOF2020   **CFP Pigs**

SHOWCASE 1 - IOF2020

Research tool for analysis

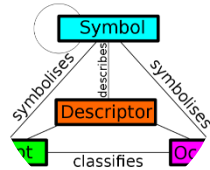Synthesising different abstraction layers within the arable and meat domain

Harmonization within the plant protection domain

SHOWCASE 2 – Carbon Footprint Pigs

Means for achieving sustainability goals of a slaughterhouse

Part of the conceptual metamodel

Integration with existing platforms and standards like JoinData and GS1

Thank you for your attention!

■ Daoud Urdu

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To explore the potential of nature to improve the quality of life

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