

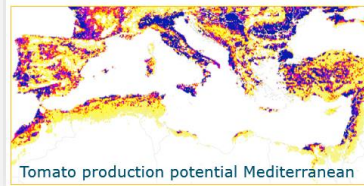
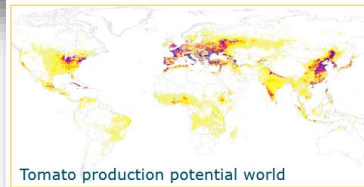
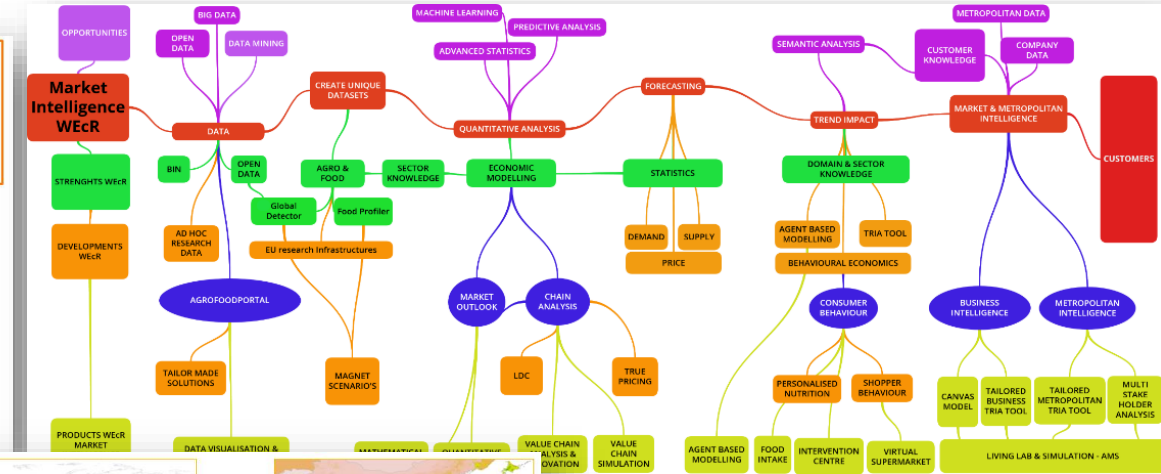
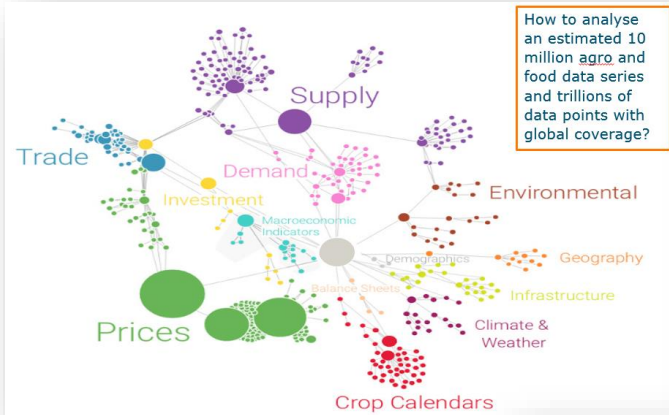
DCC for Value Creation

Wageningen Data Science Week

February 4th 2019, Willem Jan Knibbe




“Global Detector”: Data Driven Economic Forecasting, applied to optimizing production locations



A Vision on the Next AI Research programme in Wageningen

UNEXPLORED DATA:
rich, diverse, largely unstructured, hard to dig up and to digest

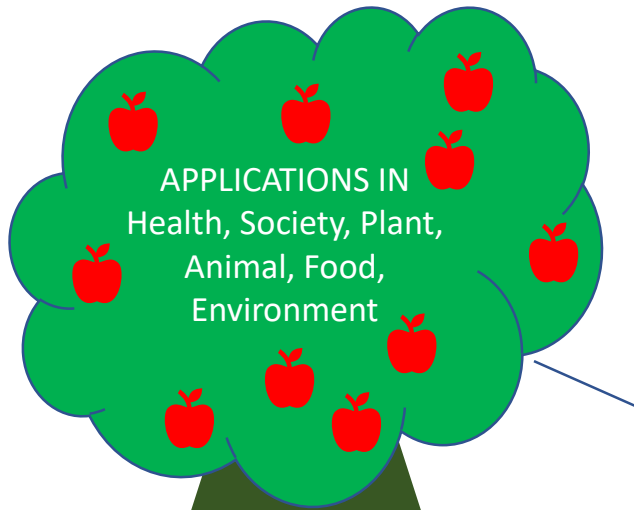


Our
challenge:
the potential
of data!

DATA INFRA-
STRUCTURE:
connecting
data to
applications

Step 1: unlock
data silos

UNEXPLORED DATA:
rich, diverse, largely unstructured, hard to dig up and to digest

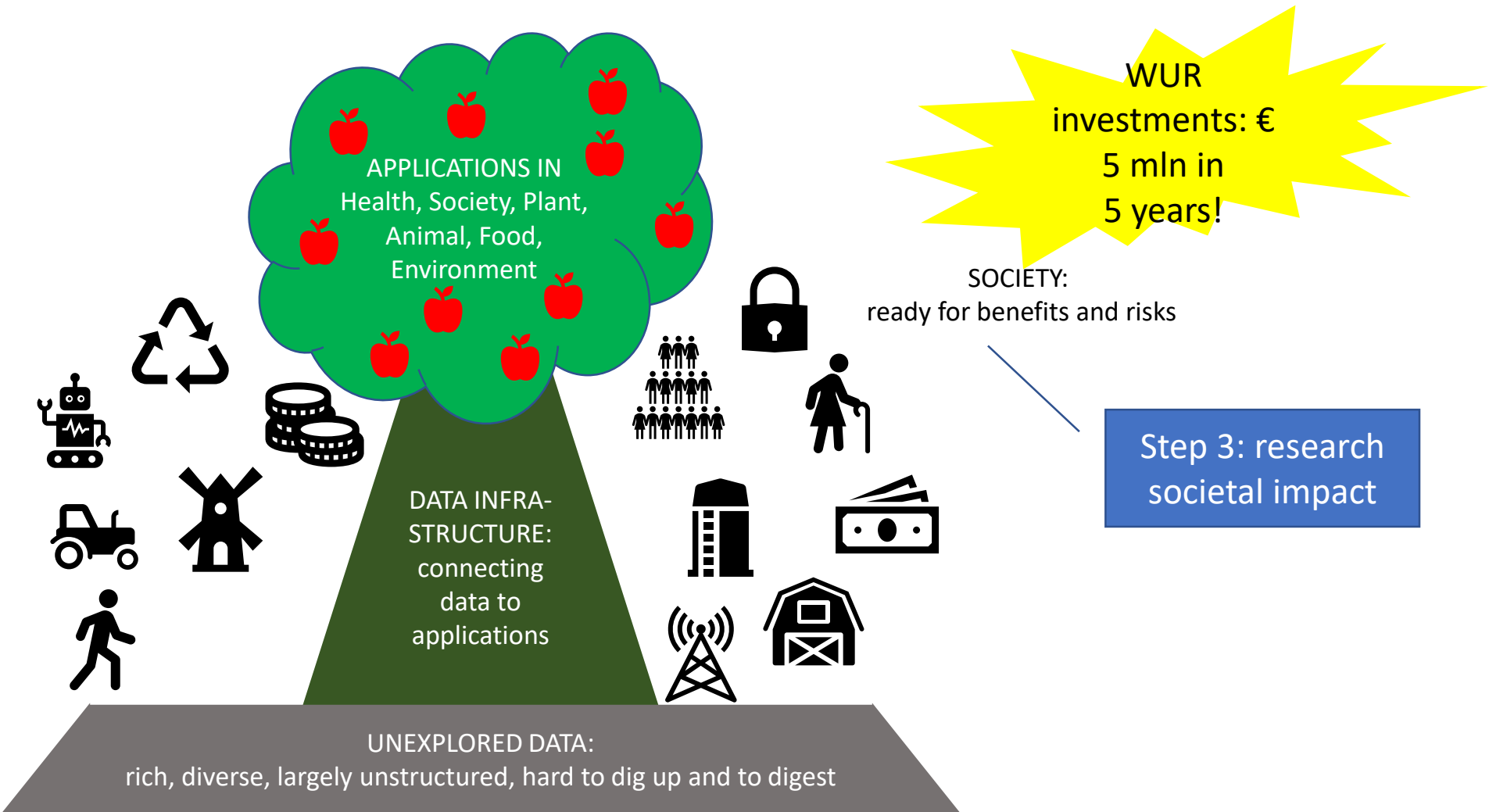


APPLICATIONS IN
Health, Society, Plant,
Animal, Food,
Environment

Step 2: apply in
practice

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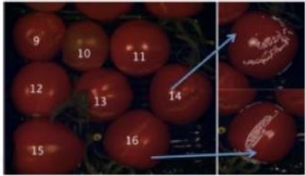
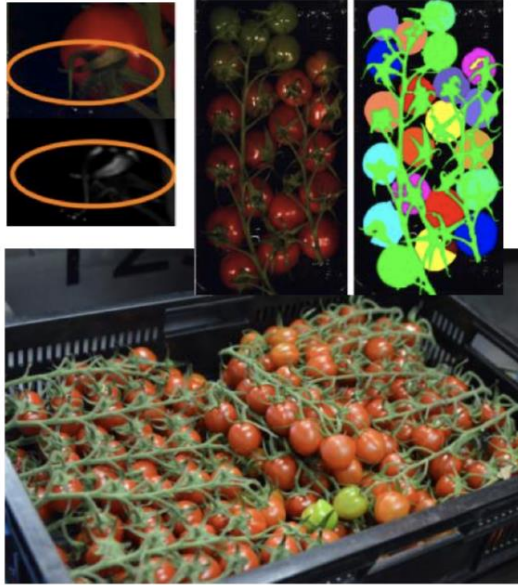
UNEXPLORED DATA:
rich, diverse, largely unstructured, hard to dig up and to digest



..aiming at Data Science in Action, from Economy to Production, Consumption, Health, etc

Quality inspection tomatoes on the vine

- RGB and SWIR (1400nm) line scan cameras
- Unripe (green) fruit
- Yellow calyx
- Mold on calyx
- Mildew
- Cracks



Selective harvesting of broccoli

- Selective harvest of Broccoli is based on diameter of the head
- Problem: partial occlusion by leaves
- Approach:
 - Border extraction of visible head
 - Circle fit on that object
 - Conversion from pixel to real world measurements (cm)
 - Setpoint: minimum diameter



Integral approach to applications of data science



Data Science Research



Data Science Education



Value Creation



Data Management



Infrastructure

Develop new opportunities for data-driven research

Reinforce education in data science

New services based on Big Data

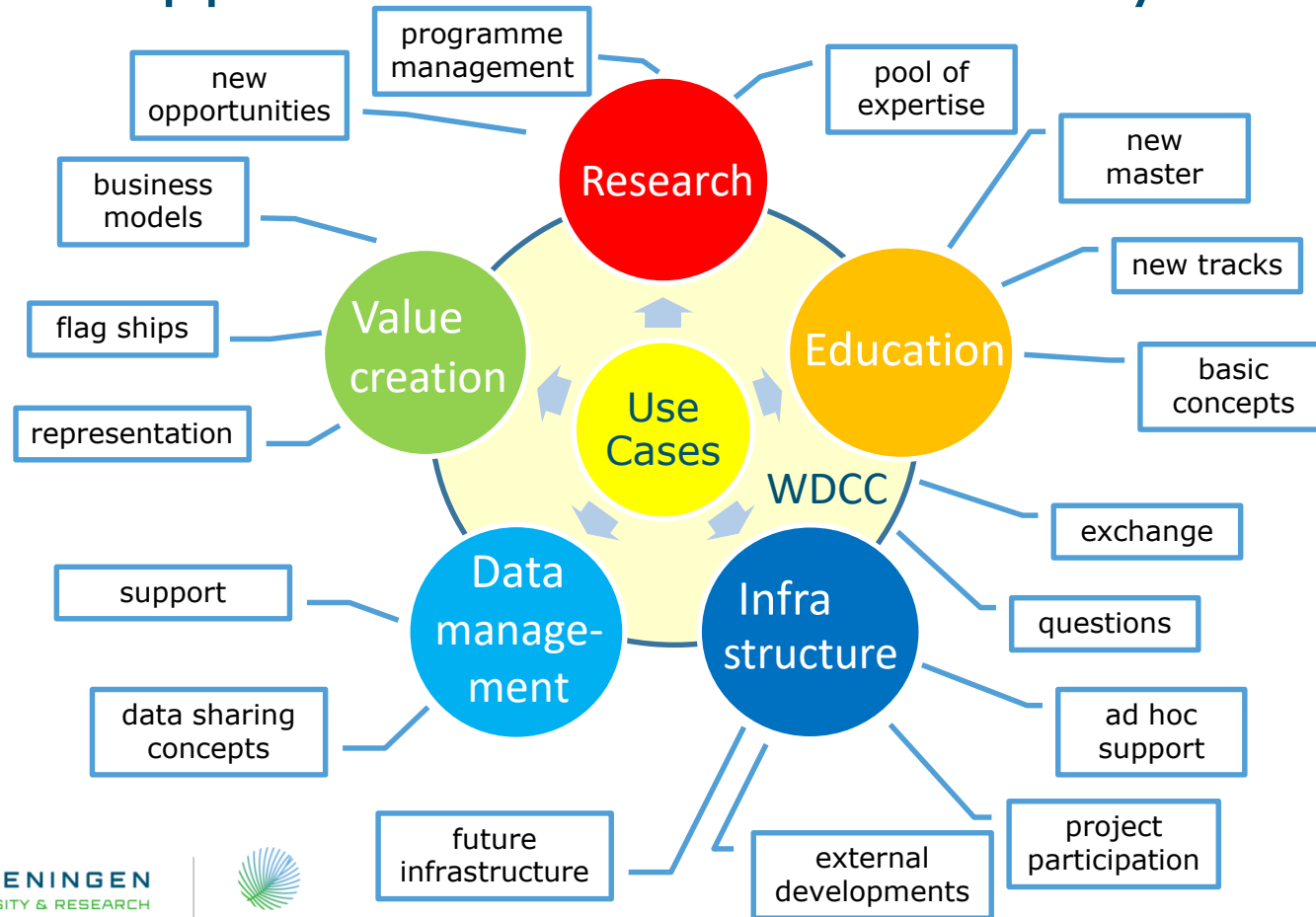
Smart access to research data and information

Develop tooling and services

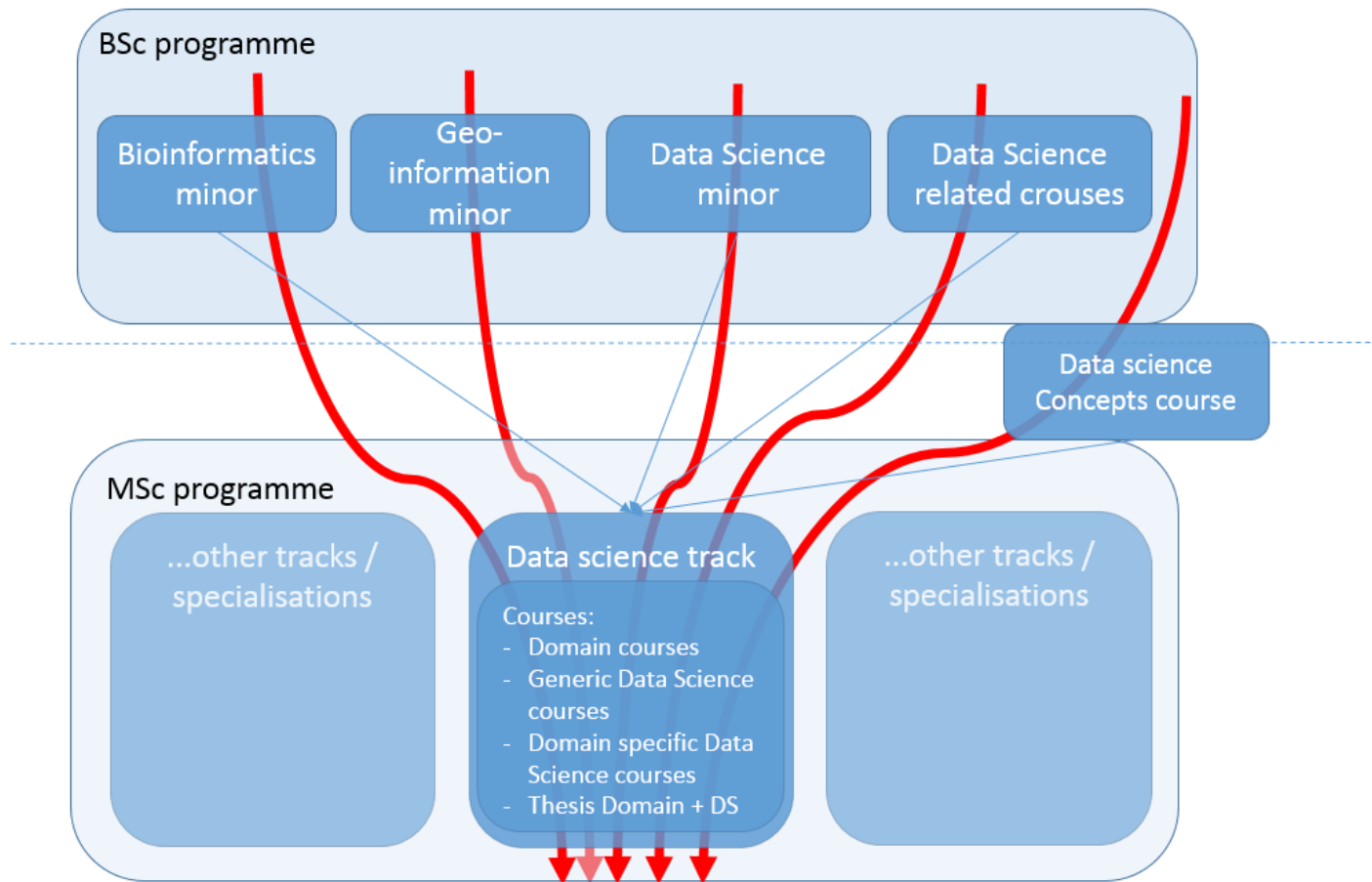
Collaboration with external partners

Wageningen Data Competence Center

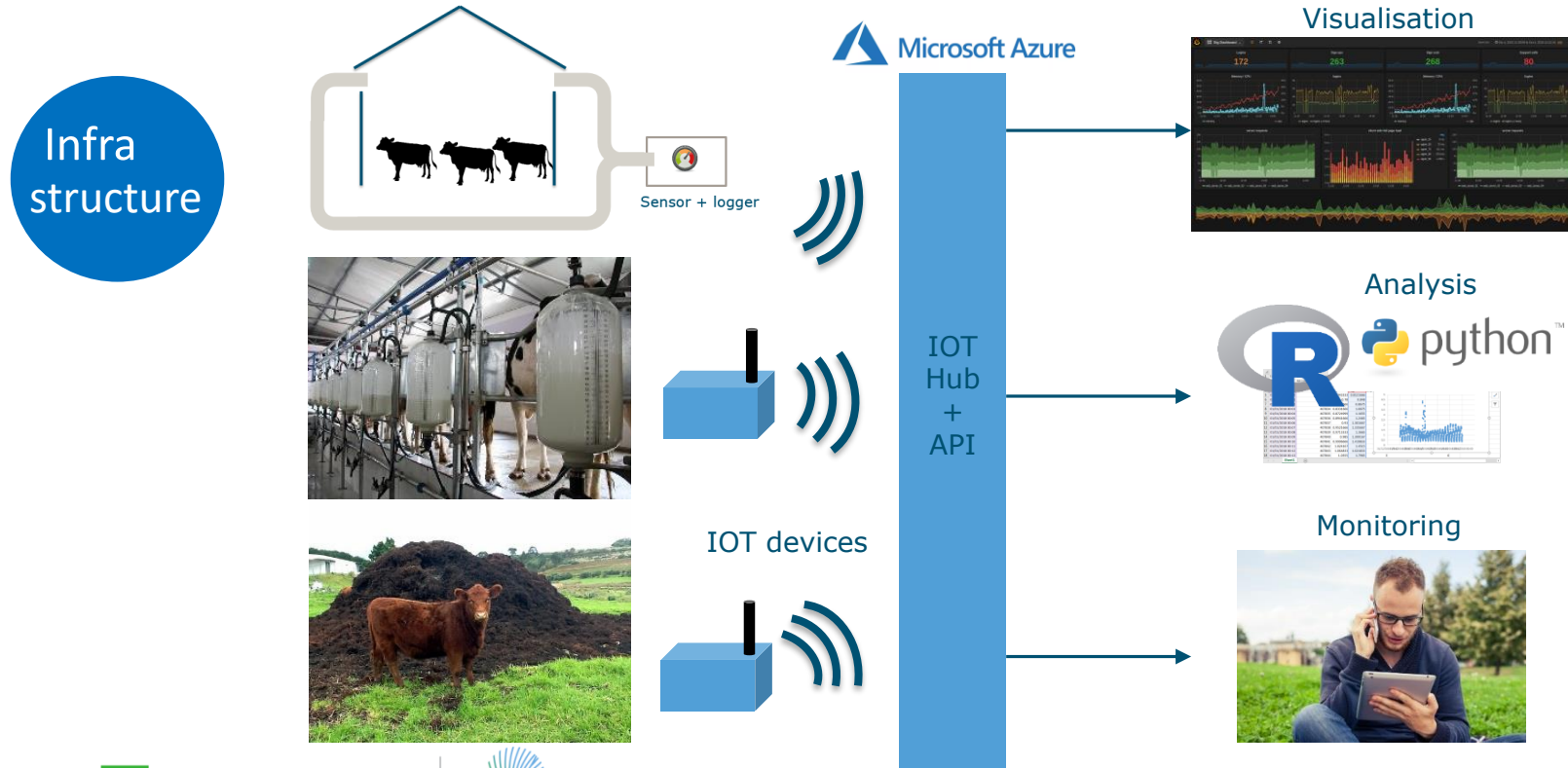
WDCC supports and coordinates many activities



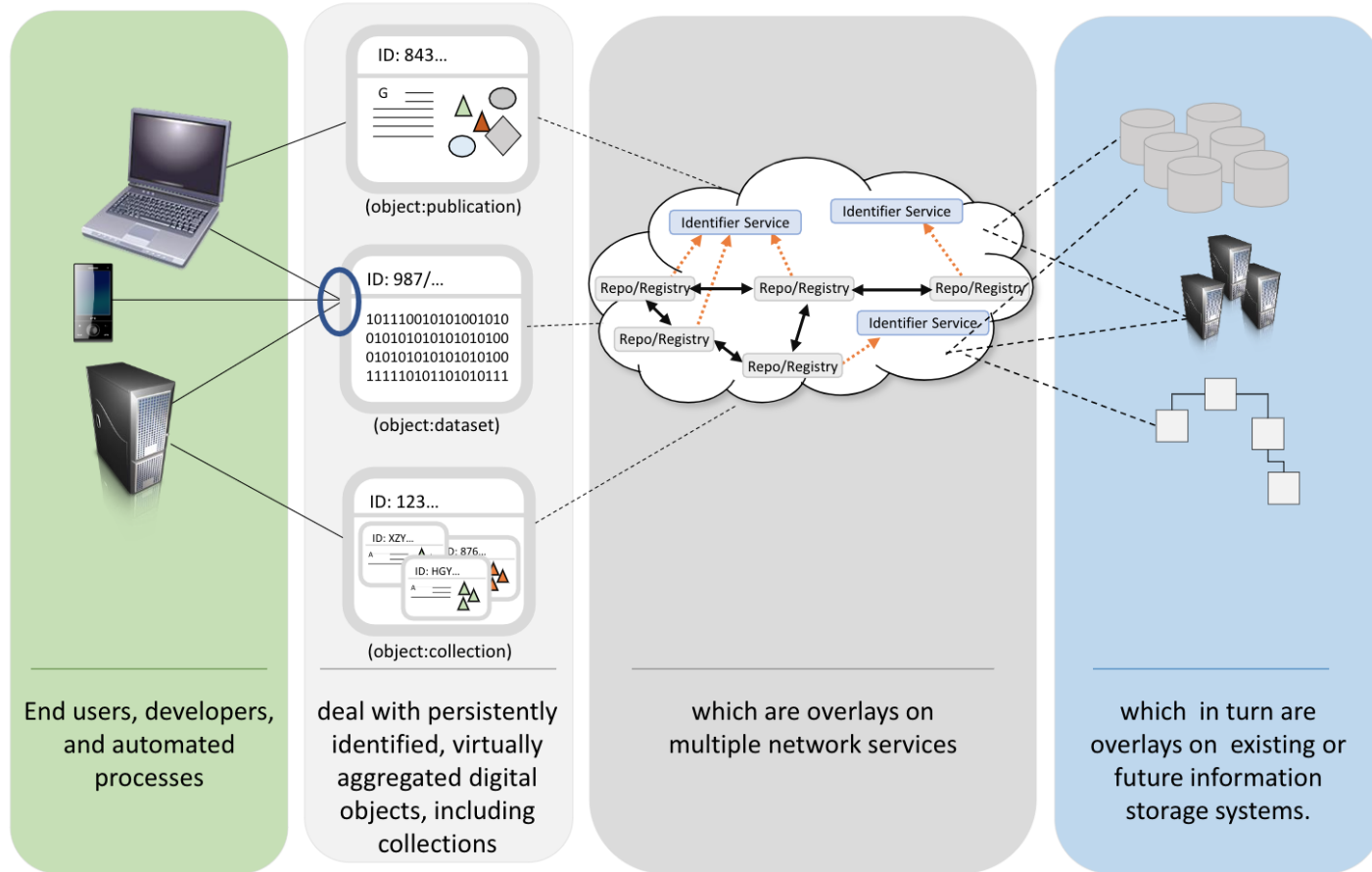
Data science tracks vision



Farm data stream management & exposure



Global Digital Object Cloud (GDOC)



GEDE Webinar
2019

Larry Lannom
(Corporation
for National
Research
Initiatives)

Ursula von der Leyen, Davos 22-1-2020

We are creating a European Open Science Cloud:

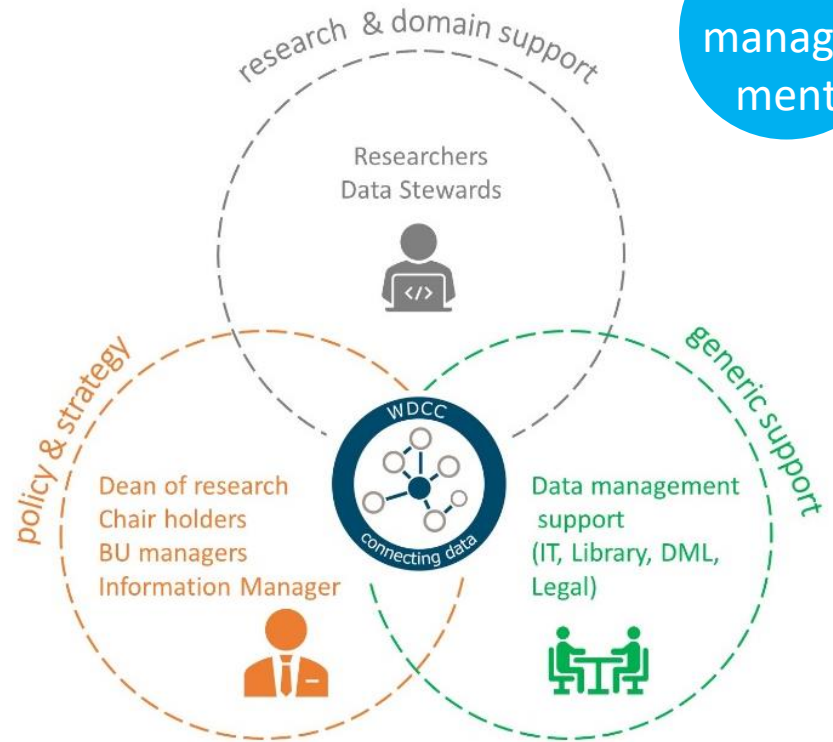
- a trusted space for researchers to store their data and to access data from researchers from all other disciplines.
- a pool of interlinked information, a 'web of research data'.

Every researcher can use not only their own data, but also those of others. They will thus come to new insights, new findings and new solutions.

Data management

- Data steward network
- Data management training curriculum for staff
- Policy and support for internal and external sharing of data
- GO FAIR Implementation Network for Competence Centers in EOSC

Data management



Data Stewardship @ WUR

External drivers

- Open Science developments
- Demand for transparant and verifiable research
- Data policies by funders (EU, NL)

Why?

- Increased pressure on researchers in order to incorporate sustainable data management in their data workflows.
- Data Management Support unit provides generic support (whereas domain specific support is also needed)

Aim

- Organize research staff members with data tasks in a Data Steward network
- Create acknowledgement for the Data Steward role
- Define required time investments for Data Stewardship
- Recognition of the added value of the Data Steward role

Results (so far):

- We identified appr. 110 staff members with Data Stewardship tasks
- Organized a first Data Stewardship@ WUR network meeting (Meet your peers!)
- Installed a working group (of 15 Data Stewards) working on an advice on the role and Data Stewardship tasks @WUR
- We participate in a National Taskgroup on Data Stewardship in the Netherlands

Attention points:

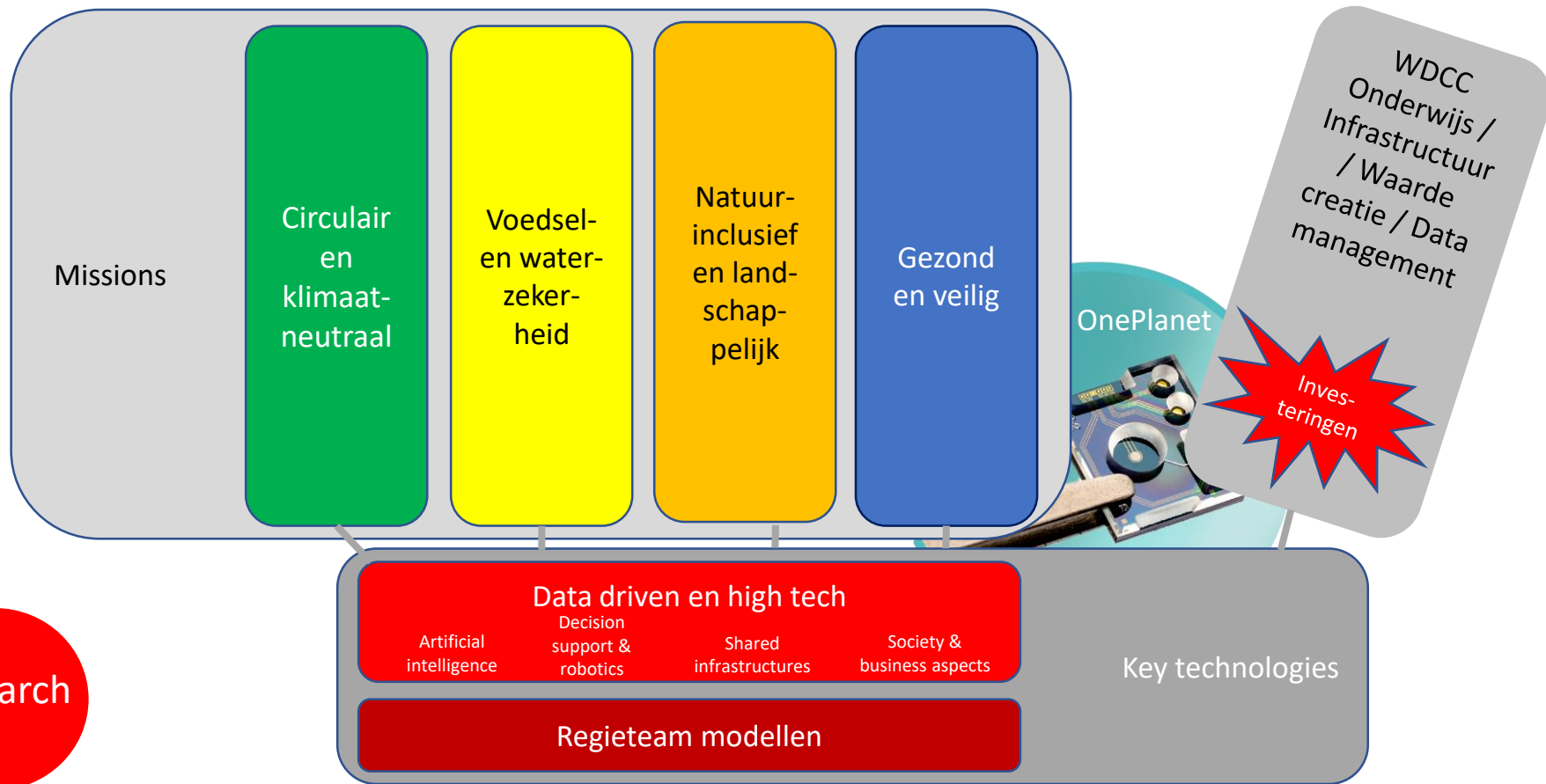
- It's not just technical skills! Soft skills are important for Data Stewards (awareness creation)
- Data Stewardship tasks in 4 categories: Policy implementatio, Services, Data archiving & Data discovery, Infra & tools
- Generic support is important
- Acknowledge that Data Stewardship takes time (appr. 2 days per month on 30 researchers)

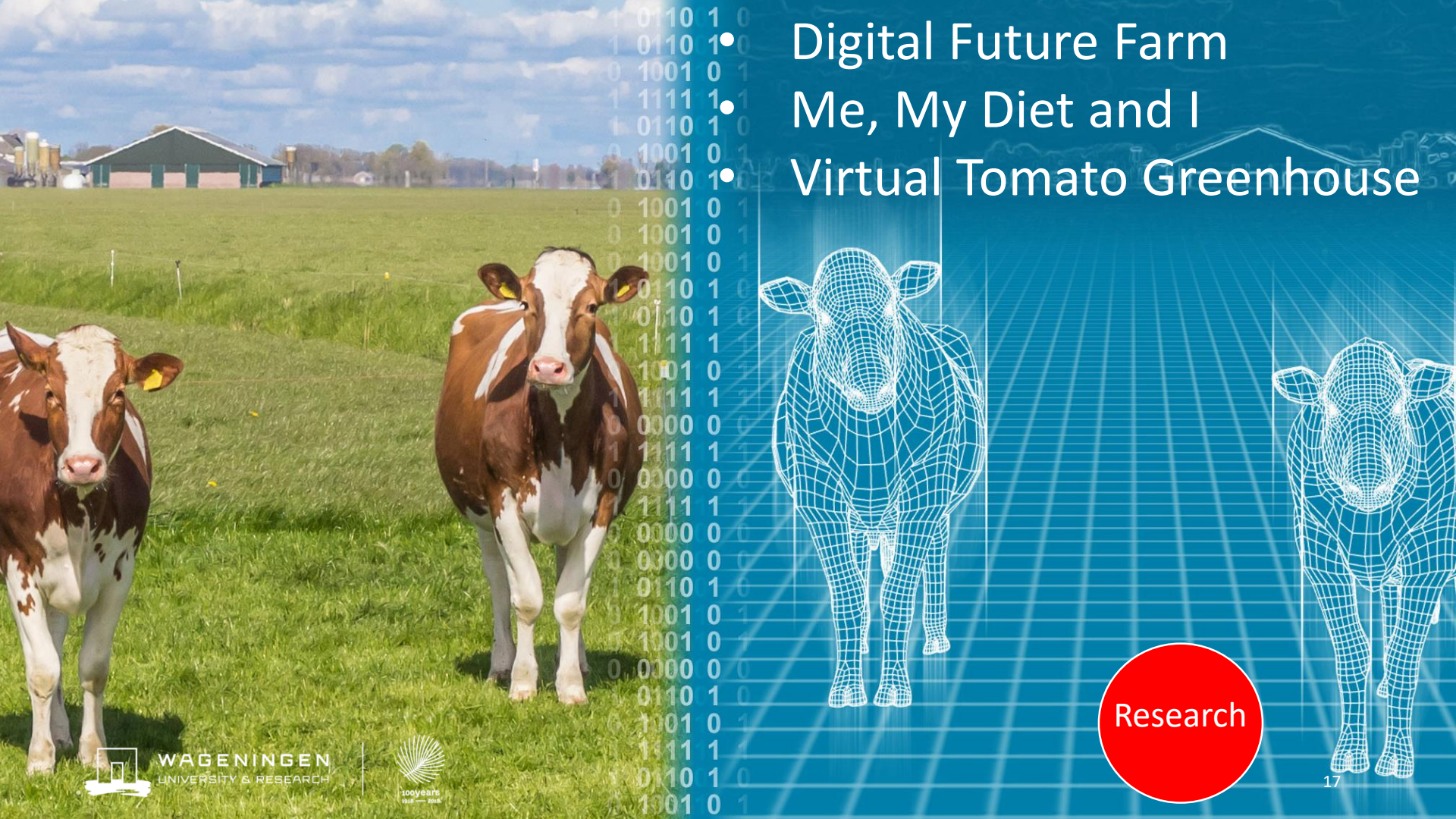


Data Stewardship is about people!

Data
manage-
ment

Wageningen Research investment programmes



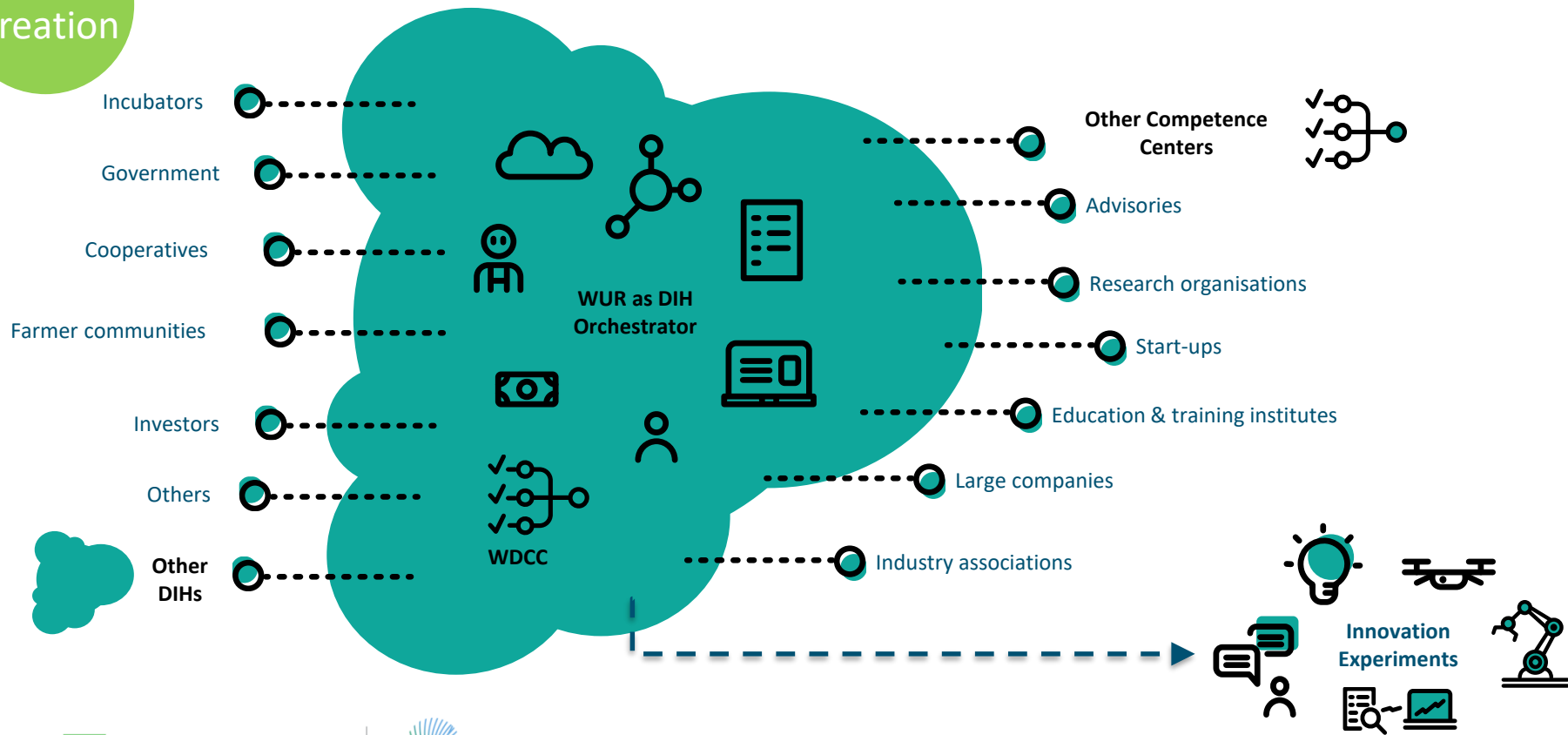


- Digital Future Farm
- Me, My Diet and I
- Virtual Tomato Greenhouse

Research

Value
creation

WDCC in a WUR Digital Innovation Hub network

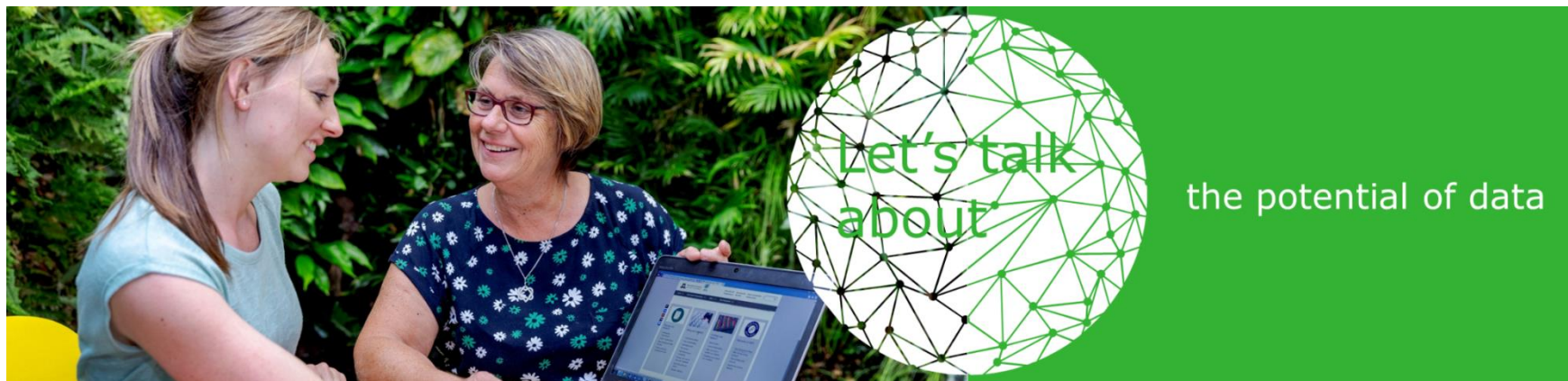


Build ...



... and use





Let's talk about DCC's!

www.wur.eu/data or data@wur.nl