Data revolution is upon us!

Agrifood application examples and concerns

High-level Panel Debate

“The digital transformation and global water, food, energy and environmental challenges“

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Precision Farming on stage!

Source: CEMA Website
Precision Farming for a Climate Smart Agriculture

The application of technologies and principles to manage spatial and temporal variability at field level For the purpose of improving crop performance and environmental quality (Pierce & Nowak, 1999)

Source: AGRICARE project
Precision Farming and benefits for W.E.F.

*What we know and what we are able to do:*

*Improving irrigation schemes and timing:* water saving, increased WUE

*Tractor assisted guide:* Fuelsaving, increased efficiency of nutrient and pesticides with no overlapping and no gaps along the field

*Precise seeds distribution and depth:* less seeds, uniform growth, increased production

*Optimization of fertilizers distribution:* timing and doses: nutrient savings, water table protection, less acidification emissions

*And much more to come............if we strength research cooperative efforts*
METROFOOD-RI

Infrastructure for promoting metrology in food and nutrition

A new distributed research infrastructure for the agrifood sector at EU level

Cover the whole food chain from primary production up to final consumption

It aims at providing high quality metrology services in food and nutrition including data collection and measurements reliability
Metrofood-RI and data

METROFOOD-RI, follow the principles of Responsible Research and Innovation (RRI)
Provide distributed services, follow plan of measurement reliability and procedure harmonization and adopts the FAIR approach (Findable, Accessible, Interoperable, Re-usable) on data management.

Users and e-Services
Tools for measurement standardisation and harmonisation; Access to food data, data related to food production and processing, data on environmental and health impact; Tools for Food Traceability and Authenticity
Some open issues

The innovation potential of data availability, elaboration and use seems to be huge but……

- What are the real cost of information? Who is going to pay?
- Who really is going to get the benefits? What about small farmers?
- Nowadays are we really aware of potential pros and cons?
- The benefits of a wide availability of data for agrifood productions are counteracted someway? E. g. Are we transferring a part of the energy cost from farming operations to the data center energy industries?

Is quite sure that we have large amount of data but maybe we do not have enough skills and ability to elaborate and use it for the decision making process.
Conclusions

✓ **Partnering** across sectors and actors to harness the explosion of available data, technologies, skills, and opportunities to connect multiple data sources is **essential** to unlocking data potential for improved agrifood production systems.

✓ This event could help to build a **better understanding** of the interdependent nature of many seemingly discrete sustainability challenges, and the **value of data** in informing decision-making to address complex challenges.

**Please go on, together!**
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