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Releasing the potential of ICT for sustainable milk and beef cattle value chains – SustainIT

PIIMAKLASTER

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Topic 2: Identify and address barriers for adoption of ICT technologies in the agri-food systems

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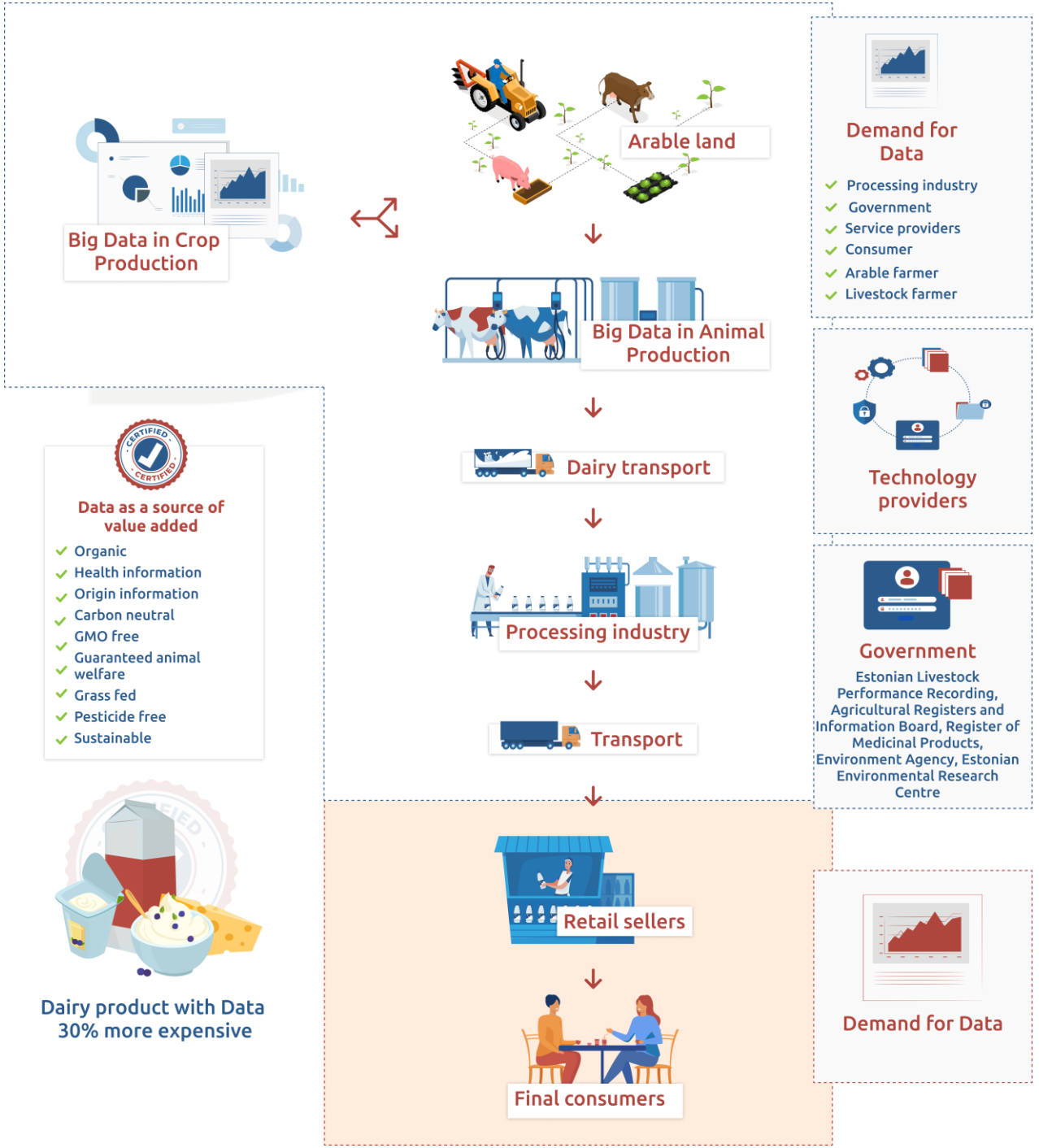
Our starting point

- Why we need to improve animal health and welfare?
  - Public health – antimicrobial resistance
  - Ethics
  - Farm income
- Interest at farm and consumer/societal ends of value chains.
- How to connect interests of farmers and consumers/society(F2F)?
- Underutilized potential of ICT in addressing these issues.

Aims

1. Identification of **institutional, economic and social barriers** of widespread adoption of ICT in cattle **value chains** and specifically in relation to animal health and welfare.
2. Improving our **understanding societal and consumer expectations** towards animal health and welfare, and in developing new conceptual **business models** that benefit from ICT in responding to consumer and societal expectations.
3. Creating recommendations for **governance of innovation ecosystems** so that they support releasing the potential of ICT in dairy and beef value chains.

Complex value network



How?

- Combination of different methods of social sciences' toolbox:
  - Living Labs – multi-actor participatory methods;
  - desk studies;
  - interviews;
  - consumer survey;
  - innovation challenge experiment.

Results and conclusions (1)

- **Living Labs**
  - Living Labs and their coordination structure established in four countries.
  - Cattle value chain stakeholders did not have a platform to discuss the role of ICT in improving animal health and welfare.
  - Useful platform to co-create solutions, intensify cooperation, simplify information flows, and for co-learning.
- **Existing databases, data usage and country-specific institutional settings**
  - animal registries (state);
  - livestock and milk performance testing, health and treatments (cooperatives and/or state)
  - risk analysis (state);
  - processing industry (cooperatives or investor-owned firms);
  - certification agencies (independent bodies, investor-owned firms).

Results and conclusions (2)

- **Consumer survey**
  - 4800 respondents from Germany, Sweden, Finland and Estonia.
  - Limited but increasing demand for animal health and welfare information, especially among younger generation.
  - Lack of but desire for traceable information on animal health and welfare leads to misguided purchasing decisions.
  - Relevance of different animal welfare attributes differs in countries.
  - Large number of labels and too much information is not informative for consumers.
- **Collaboration with national Data Initiatives (DI) and Digital Innovation Hubs (DIH)**
  - Ongoing experiment to bring innovation challenges identified by Living Labs to the tables of other innovation ecosystem actors to co-create solution pathways.

Next steps

- Creation of conceptual **business models** to respond to consumer and societal demands.
- Further **collaboration with DIs and DIHs**.
  - Are DIs and current databases aligning their development?
  - Is the collaboration between Living Labs and DIHs fruitful?
- **Policy recommendations** for further developing ICT innovation ecosystem to facilitate ICT in agri-food value chains.
  - Critical evaluation of the role of Living Labs in ICT innovation ecosystem.
  - Concept for setting up and operating Living Lab structures.

Why should we?
Who should do it?

- **Strong business cases and new business models** are needed that incentivise system-wide exchange of data and information in value chains.
- **Inclusive governance models for digitalization** needed that enable a sustainable and practical integration of ICT applications, co-learning, and successful development of innovation ecosystem.

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Thank you!

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