



DEMETER

AgriTech 4.0 Feb 2021

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Sectoral Challenges



Digitalisation brings opportunities to the EU farming sector and rural areas...

... but there are limiting factors and bottlenecks to overcome

- Infrastructure / connectivity / broadband
- Farmers' awareness about benefits
- Farmers' skills
- Standardisation/interoperability of systems
- Data ownership
- Financing investments

...and potential risks to consider

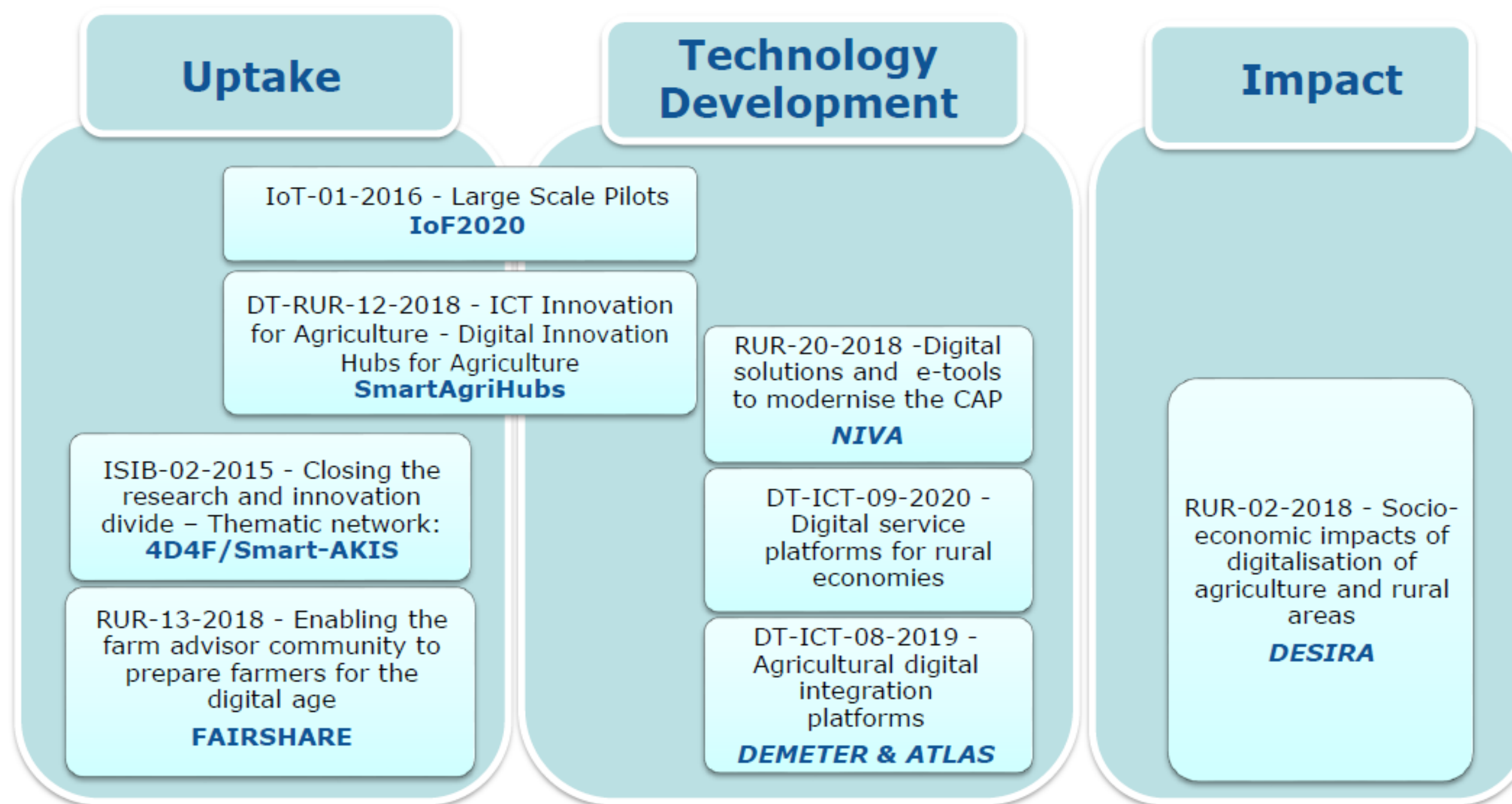
- Digital divide
- Data ownership
- Increased concentration in the agri-food chain
- Uncertain impact on jobs
- Socio-economic impact overall





Research & Innovation

H2020 WP 2018-2020 Topics: Digital transformation in agriculture and rural areas



Other SFS topic supporting the Focus Area "Digitising and transforming EU industry and services:
DT-SFS-14-2018: Personal nutrition, DT-SFS-26-2019: Food cloud demonstrator





DEMETER - In a nutshell

 **15** member states



18 Countries

60
Partners

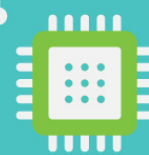
318k hectares of land

Working with

5.7k
Farmers

29k Sensors used across

80 sites



9.2k Devices & **131** Large Machinery



20 Pilots



5 Agri Sectors

Global Outreach:

69

farming associations

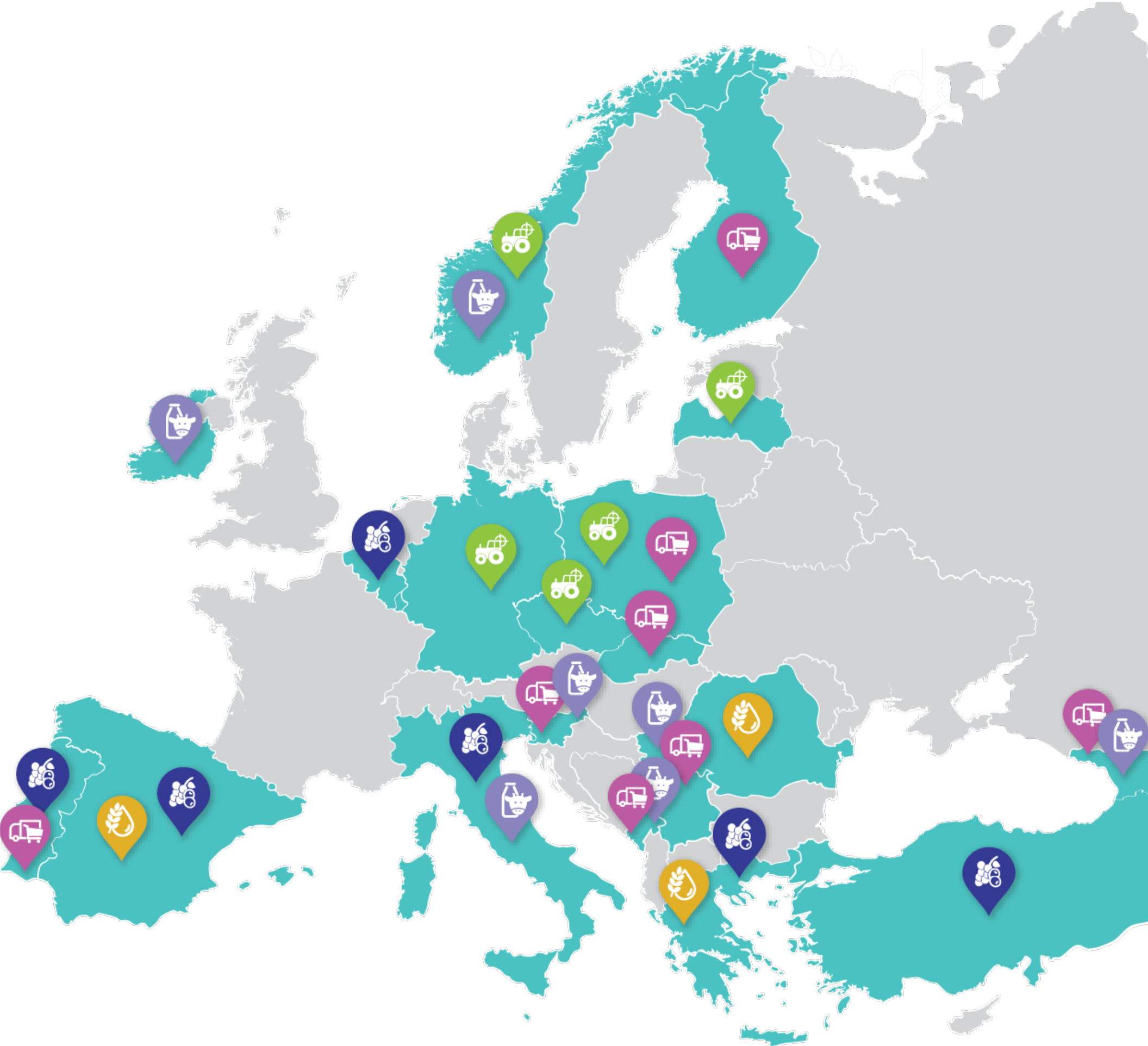
47 Countries

1.5 Billion People

Multi-Actor Approach



Using Practical skills & knowledge to target real life needs, problems & opportunities.





The DEMETER Approach



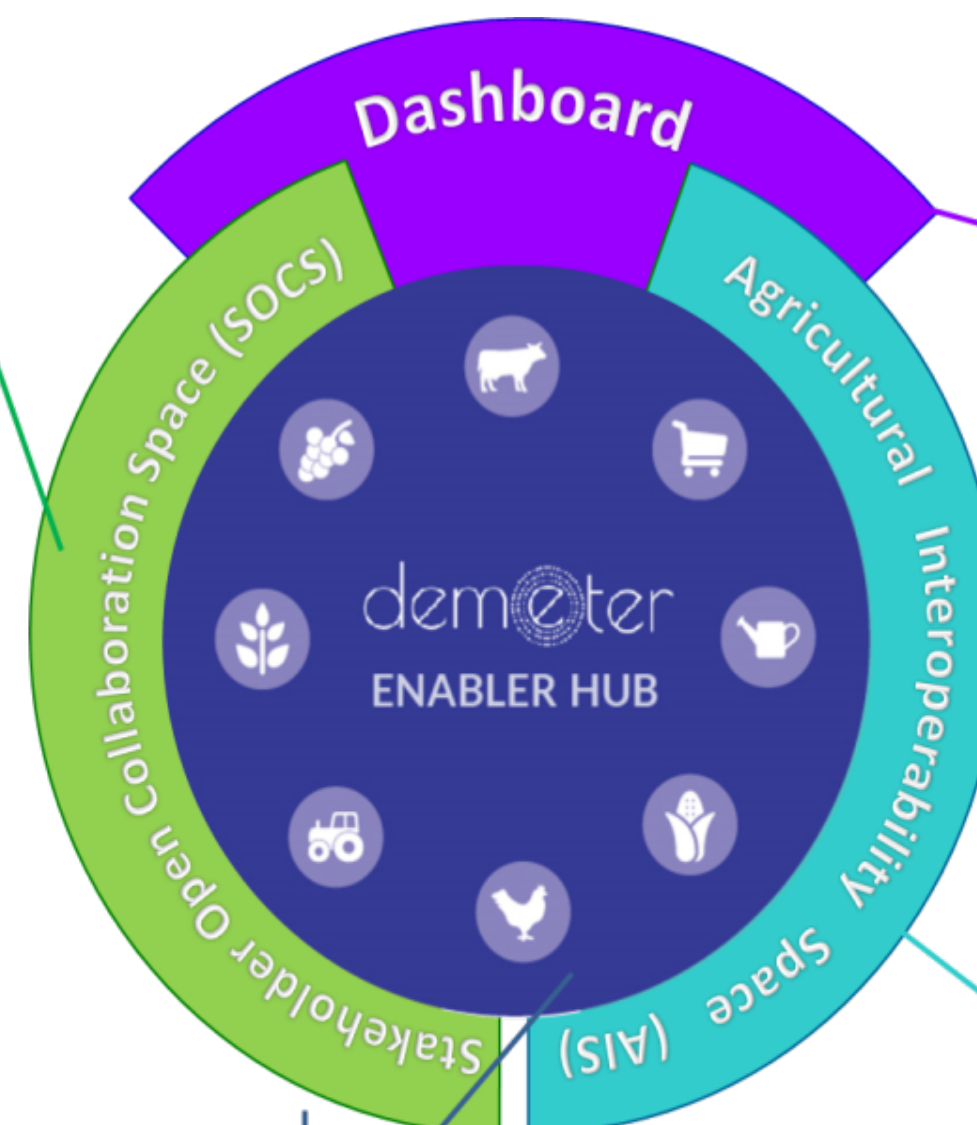
Knowledge sharing and co-creation space where

- Farmers/service advisors express their needs and
- Service advisors and providers team-up to define the most appropriate combination of tools.

DEMETER MAA

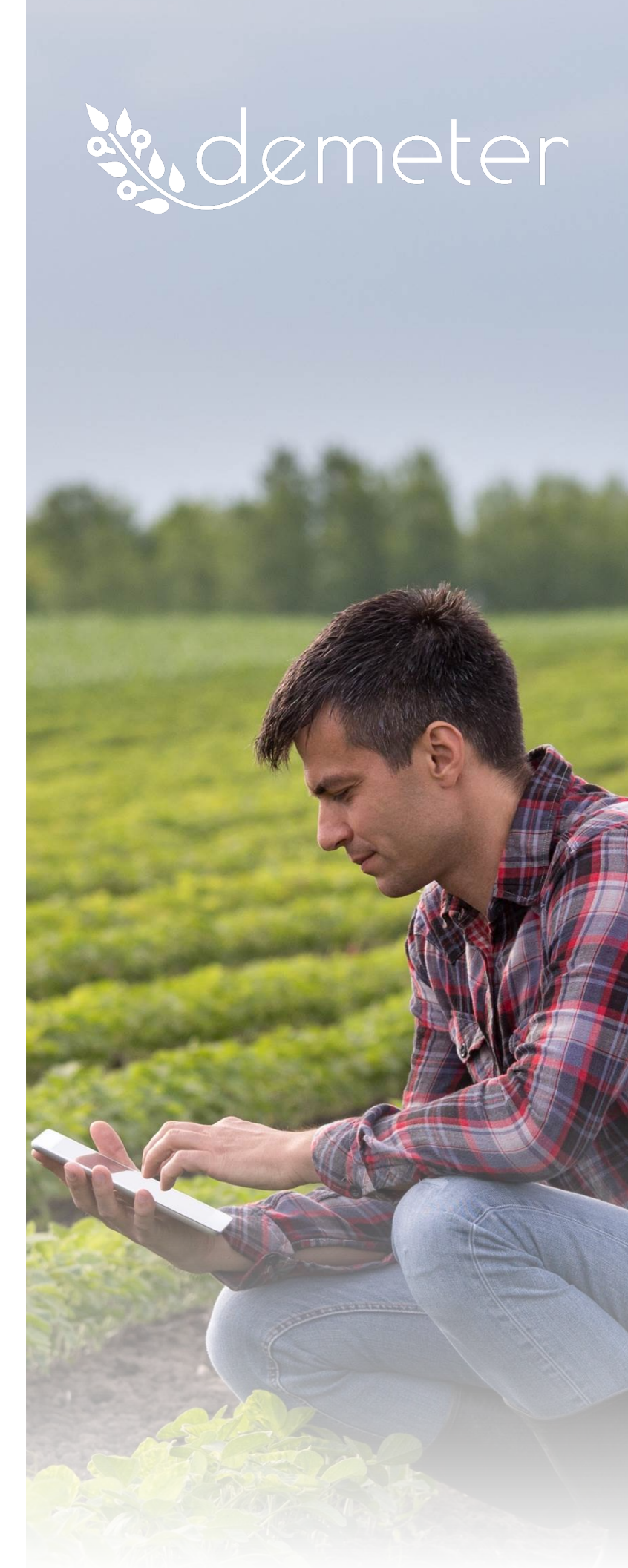
- Co-creation of needs
- Co-generation of solutions
- Co-shared responsibility for efficient deployment
- Co-organise support for optimal adoption

DEMETER Enabler Hub: The available collaboration spaces (SOCS and AIS) are built around this hub that enables access to all resources that are available for integration and deployment.



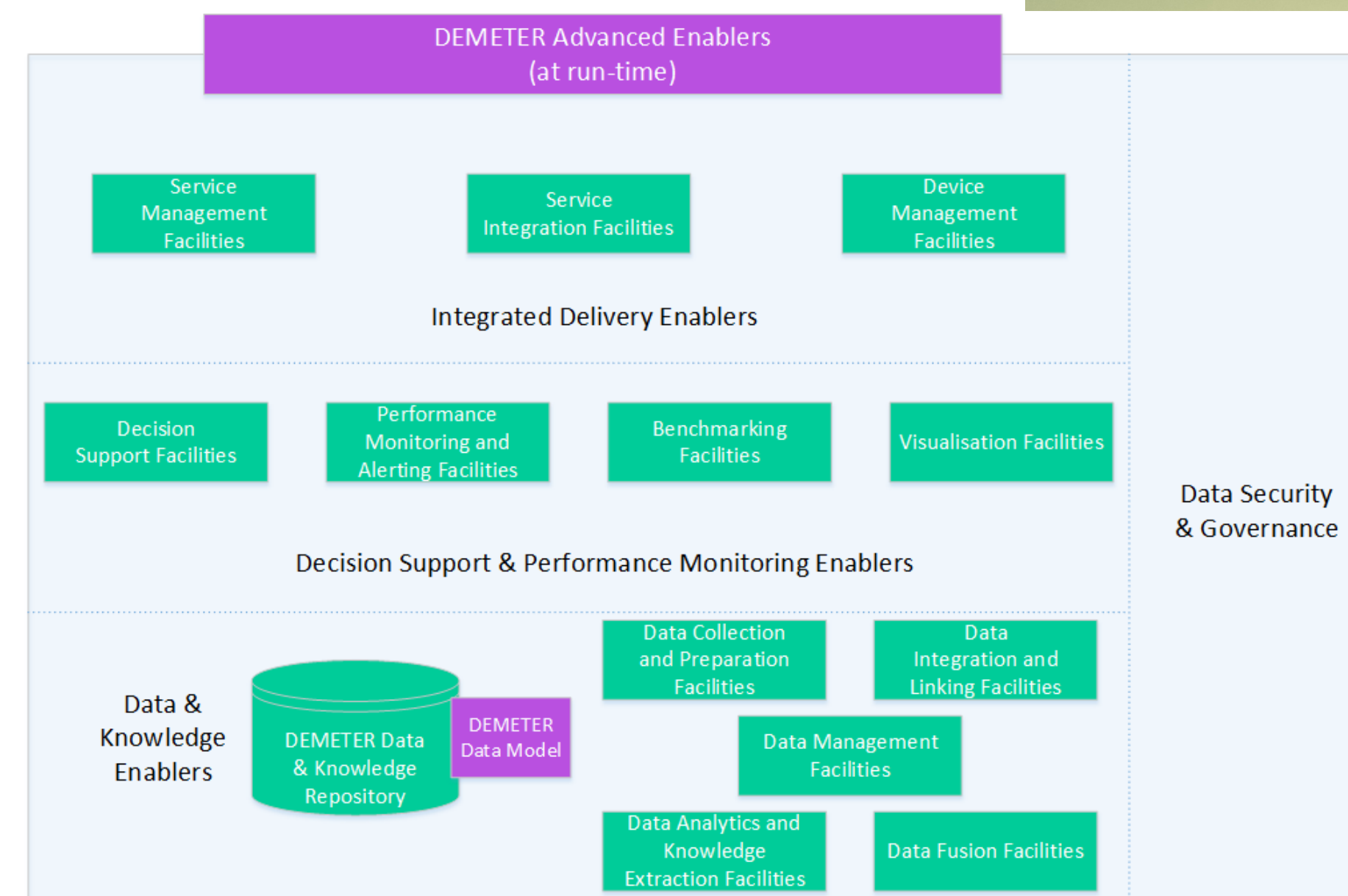
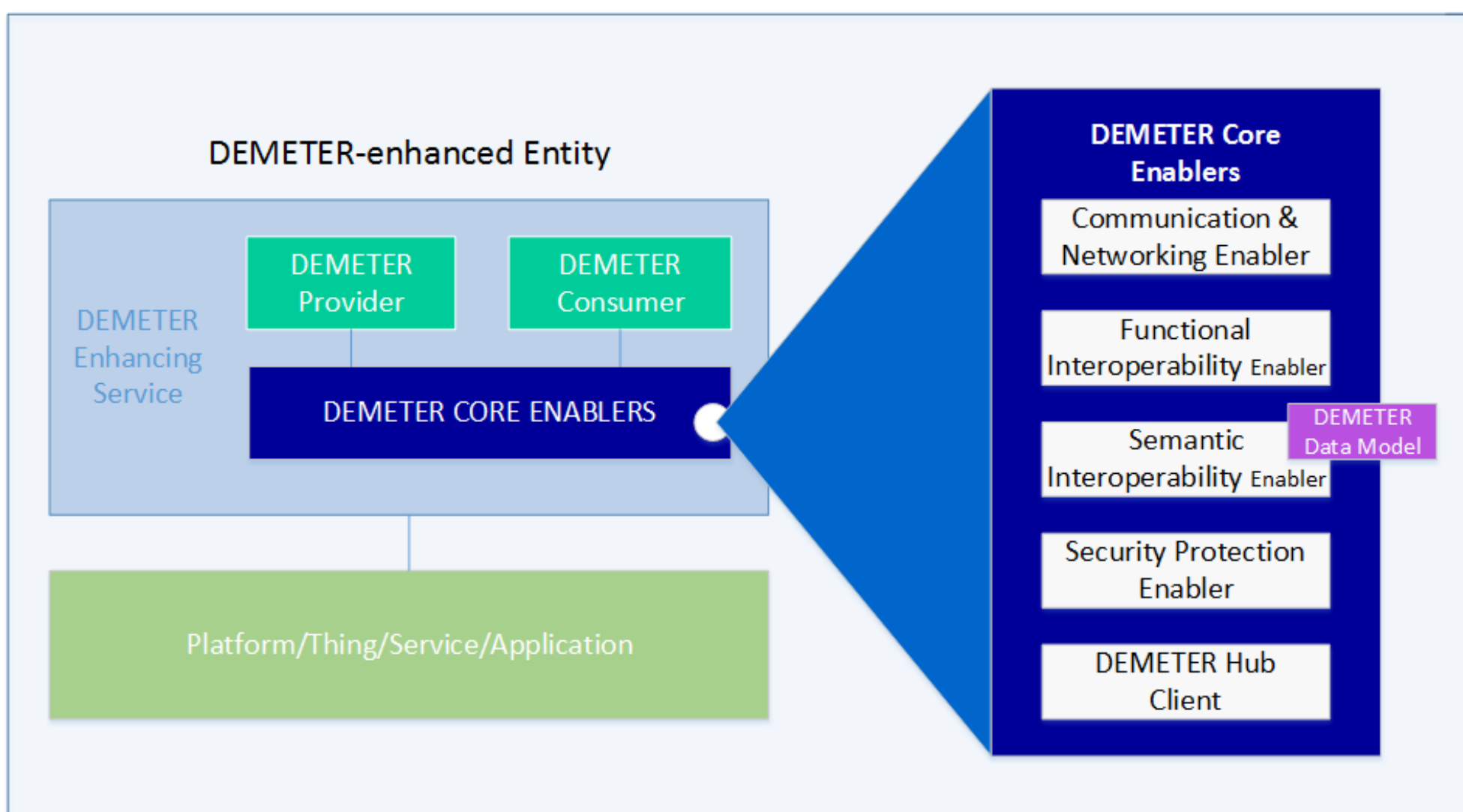
DEMETER Dashboard: Sole entry point to the DEMETER ecosystem for all DEMETER Stakeholders.

Implementation Space: A virtual space where providers team-up and interoperate to develop and deliver the appropriate combinations and customisations of tools to the farmers ensuring interoperability with existing solutions.



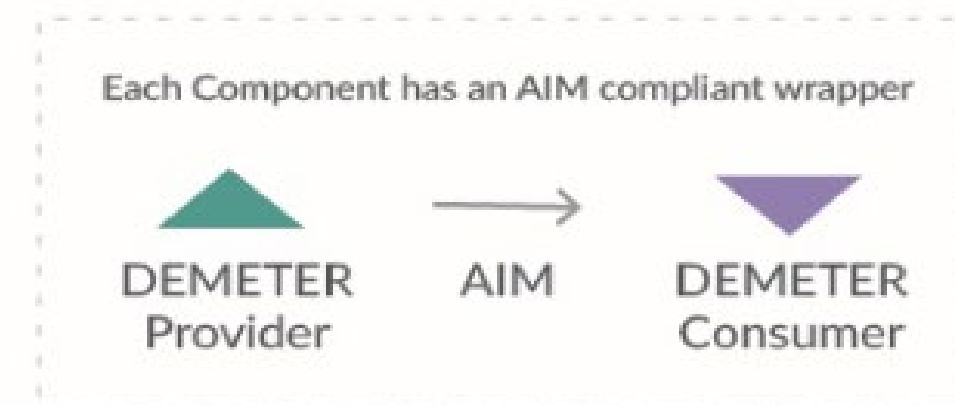
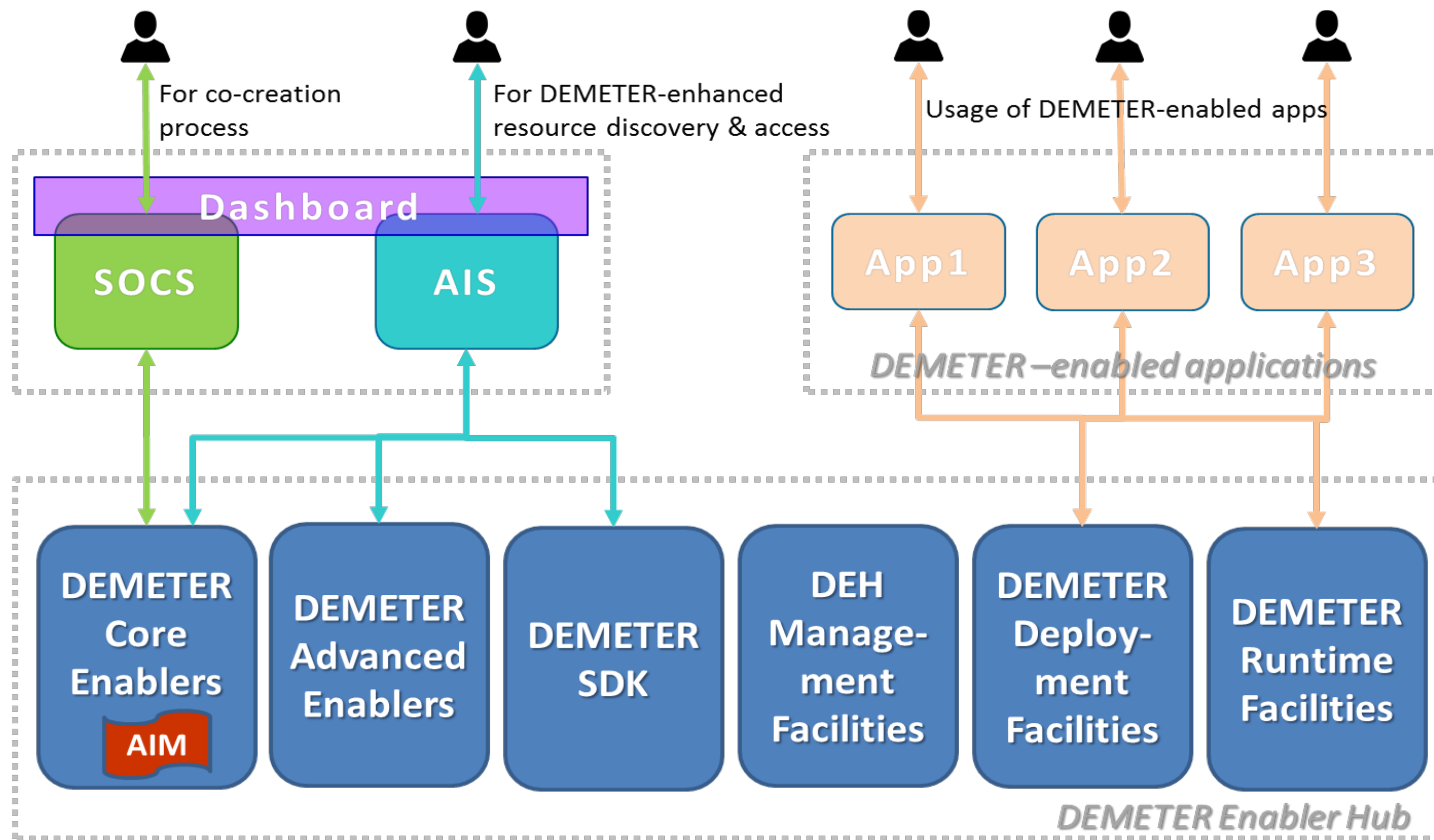


DEMETER Enablers





Functional Architecture and AIM



Direction of Information Flow





Pilots Overview



				
<p>Sector: Arable Crops Focus: Water & Energy Management</p> <ul style="list-style-type: none">• Water savings in irrigated crops• Smart energy management in irrigated & arable crops• Optimal Quality Rice Irrigation• IoT Corn Management & Decision Support Platform	<p>Sector: Arable Crops Focus: Agricultural Machinery, Precision Farming</p> <ul style="list-style-type: none">• In-Service Condition Monitoring of Agricultural Machinery• Automated documentation of arable crop farming processes• (Farming)Data Brokerage Service and Decision Support System for Farm Management• Benchmarking at Farm Level Decision Support System	<p>Sector: Fruit & Vegetables Focus: Health and high-quality crops</p> <ul style="list-style-type: none">• Decision Support System to support olive growers• Precision Farming for Mediterranean Woody Crops• Pest Management Control on Fruit Fly• Open platform for improved crop monitoring in potato farms	<p>Sector: Livestock Focus: Animal Health, High Quality</p> <ul style="list-style-type: none">• Dairy Farmers Dashboard for the entire milk and meat production value chain• Consumer awareness: Milk quality and animal welfare tracking• Proactive milk quality control• Optimal chicken farm management	<p>Sector: Cross-sectorial Focus: Full supply chain, interoperability, robotics</p> <ul style="list-style-type: none">• Disease prediction and supply chain transparency for orchards/vineyards• Farm of things in extensive cattle holdings• Pollination optimisation in apiculture• Transparent supply chain in poultry industry





Status and Next Steps

- Started Sept 2019
- Multi Actor Approach fully underway
- Initial requirements and architecture ready
- Piloting started (with Covid delays)
- 1st Open Call Launched (Winners selected)
- Joint whitepaper on Common Agricultural Data Spaces
- www.h2020-demeter.eu
- twitter.com/H2020DEMETER
- facebook.com/H2020Demeter
- linkedin.com/company/h2020-demeter
- Youtube



Thank you

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