DEMETER
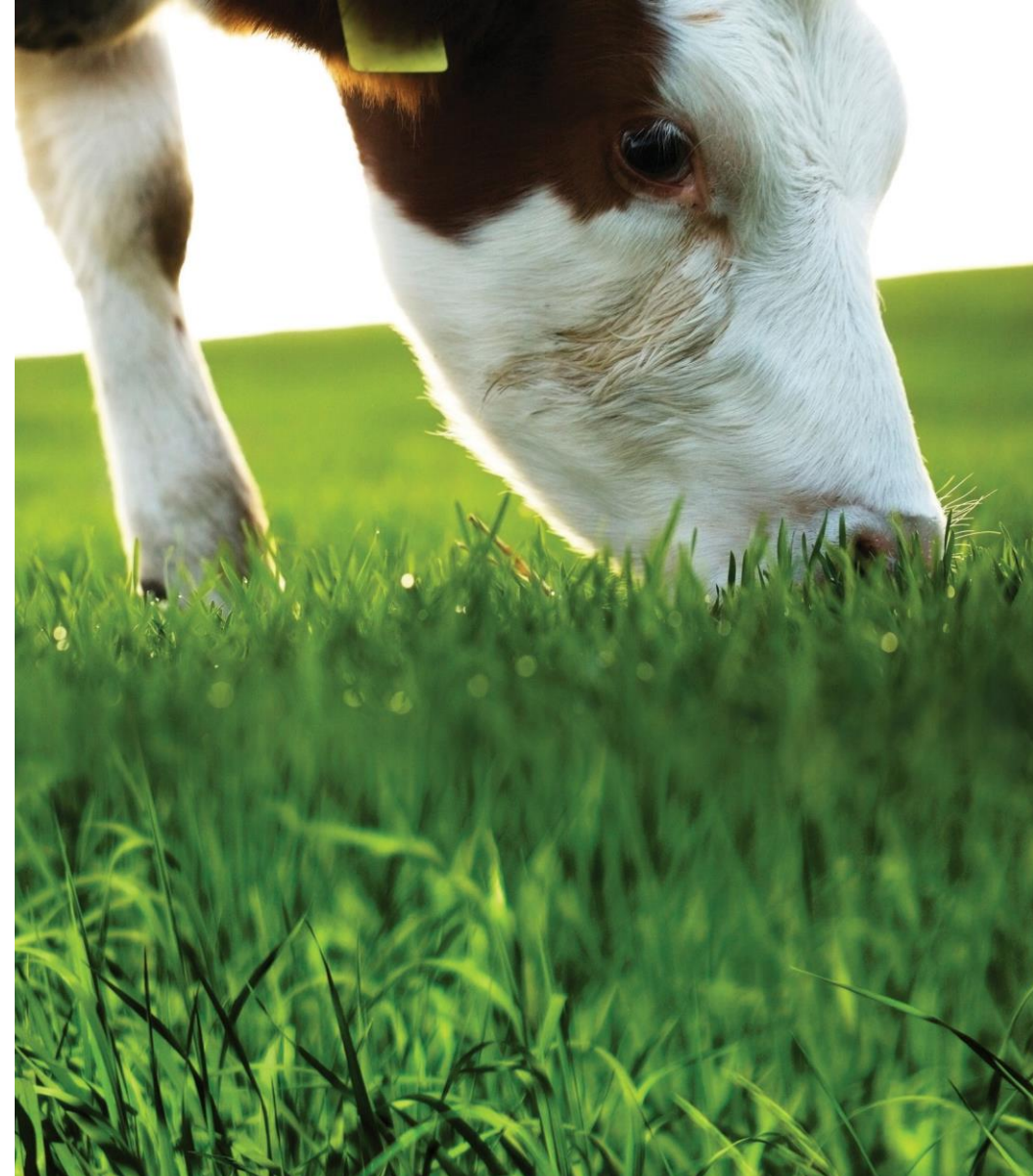
ICT-AGRI-FOOD FORUM

Kevin Doolin

TSSG, Waterford Institute of Technology

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

European Commission

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

demeter

20 Pilots

5 Agri Sectors

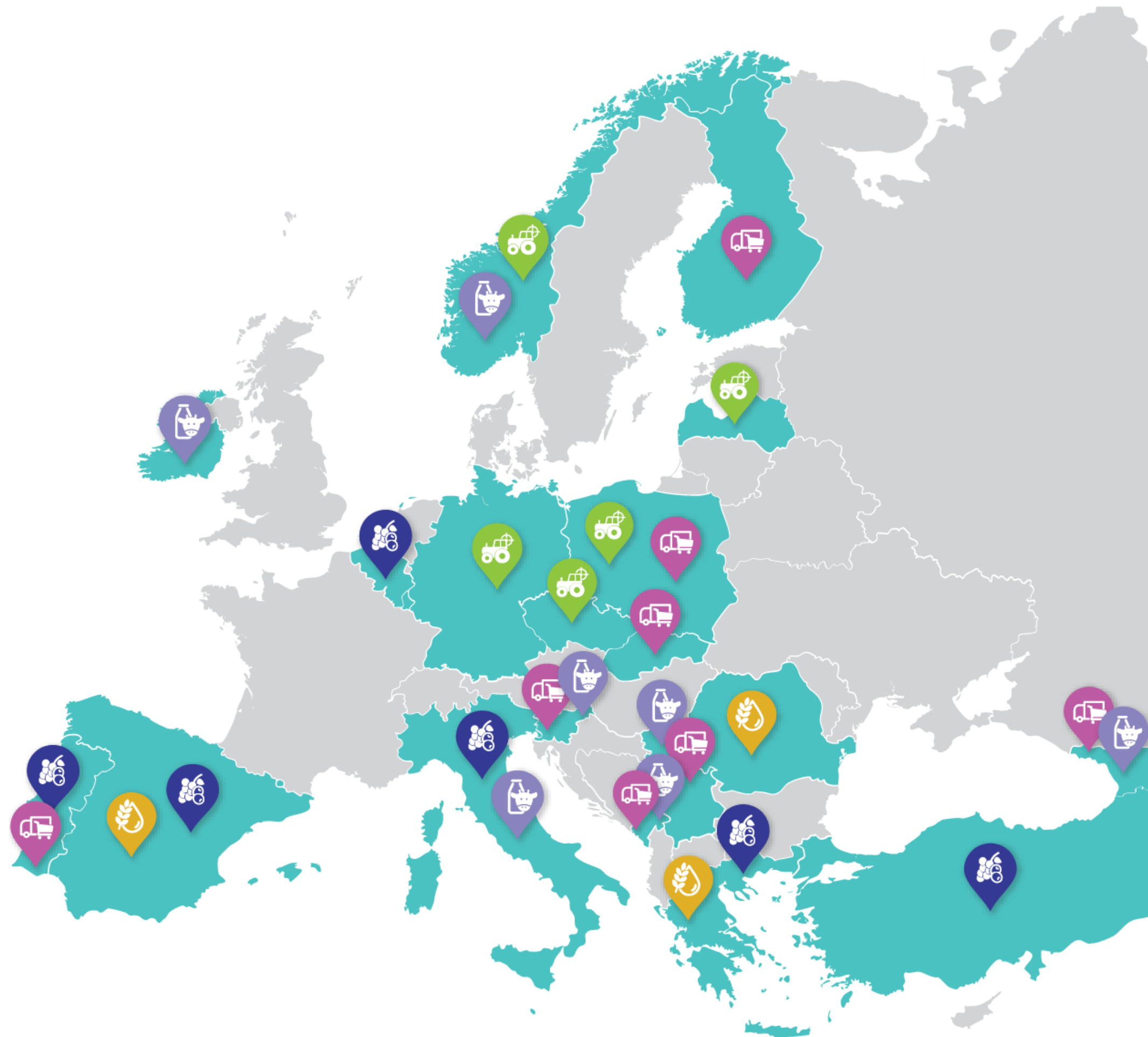Global Outreach: **69** farming associations

47 Countries

1.5 Billion People

Multi-Actor Approach

Using Practical **skills** & **knowledge** to target real life needs, problems & opportunities.
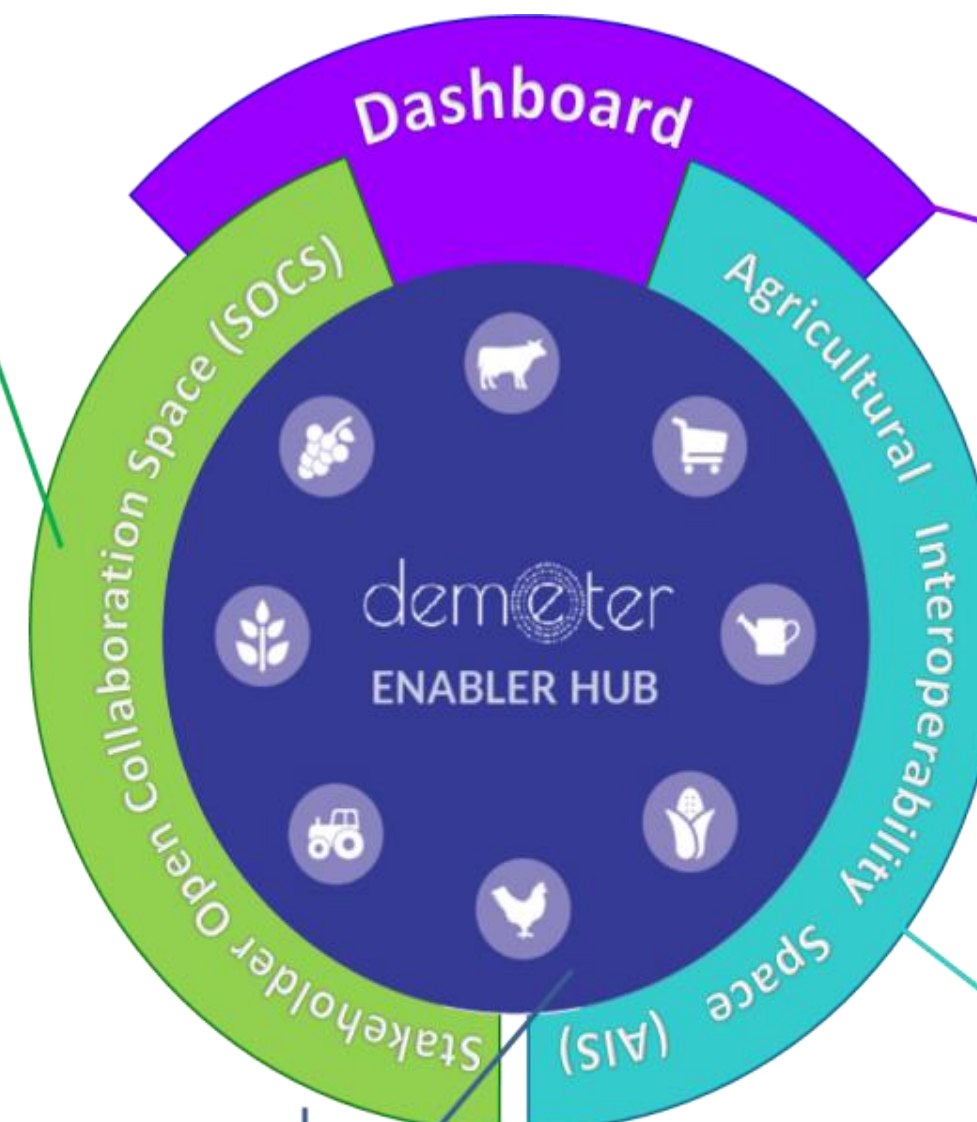
The DEMETER MAA and Technical Approach

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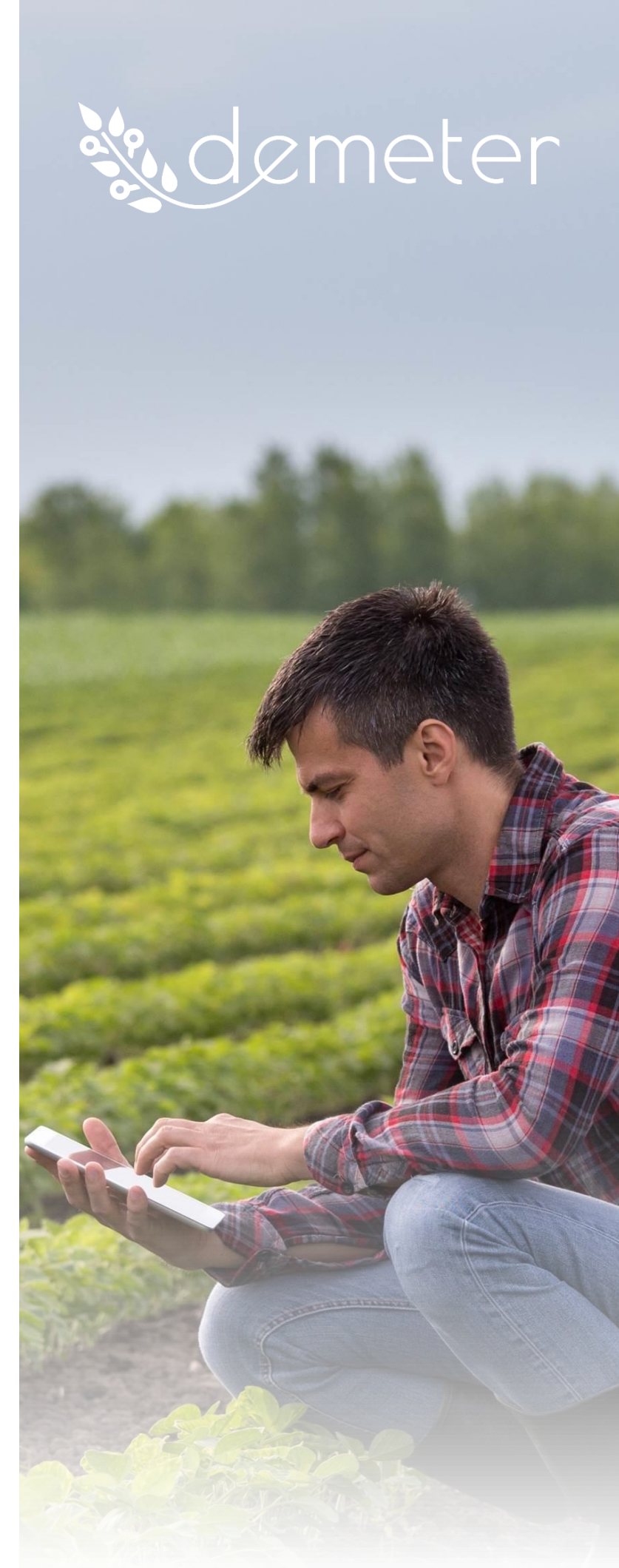
DEMETER MAA
- Co-creation of needs
- Co-generation of solutions
- Co-shared responsibility for efficient deployment
- Co-organise support for optimal adoption

Dashboard

demeter
ENABLER HUB

Stakeholder Open Collaboration Space (SOCS)

Agricultural Interoperability Space (AIS)

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 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.

Pilots Overview

Sector: Arable Crops
Focus: Water & Energy Management

- Water savings in irrigated crops
- Smart energy management in irrigated & arable crops
- Optimal Quality Rice Irrigation
- IoT Corn Management & Decision Support Platform

Sector: Arable Crops
Focus: Agricultural Machinery, Precision Farming

- 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

Sector: Fruit & Vegetables
Focus: Health and high-quality crops

- 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

Sector: Livestock
Focus: Animal Health, High Quality

- 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

Sector: Cross-sectorial
Focus: Full supply chain, interoperability, robotics

- 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

Recommendations

- Engage real end users from the outset and throughout
- Verify results in trial settings
- Co-create communication content

- www.h2020-demeter.eu
- twitter.com/H2020DEMETER
- facebook.com/H2020Demeter
- linkedin.com/company/h2020-demeter
- Youtube

TSSG

Thank you

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