



# SCALING AGRICULTURAL SENSOR DATA

for an improved monitoring of  
agri-environmental conditions

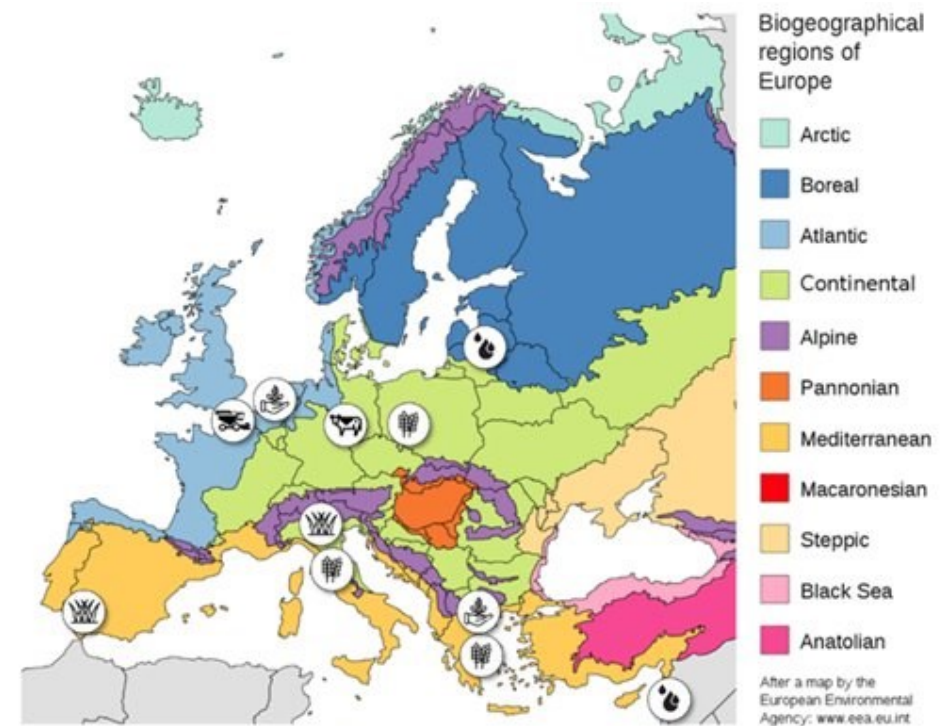
Laurent Tits – VITO Remote Sensing  
Tools4CAP info session

# An overview

- Response to call: HORIZON-CL6-2022-GOVERNANCE-01-11 Upscaling (real-time) sensor data for EU-wide monitoring of production and agri-environmental conditions

- The project in brief:

- 4 years (January 2023 – December 2026)
- 26 Partners
- 6 RI Labs



# The vision

SCALING AGRICULTURAL SENSOR DATA for an improved monitoring of agri-environmental conditions

1. Making the data available: obtain insights in how the complex data streams should be governed and organized (Governance call)
2. Making optimal use of the data: develop the data technology needed to scale data collected at the farm level to regional datasets agri-environmental monitoring and the management of agricultural production. (RIA)

# The objectives

Obj. 1: Developing innovative approaches for collecting in-situ data and applying data technologies.

Obj. 2: Enabling and promoting data sharing along the entire data value chain.

Obj. 3: Demonstrating how the sensor data can be scaled to agri-environmental data products at the national, regional or European level

Obj. 4: Demonstrating the benefit of the improved monitoring capacities in a precision farming context

Obj. 5: Demonstrating the benefit of upscaled regional datasets for the agricultural sector in general

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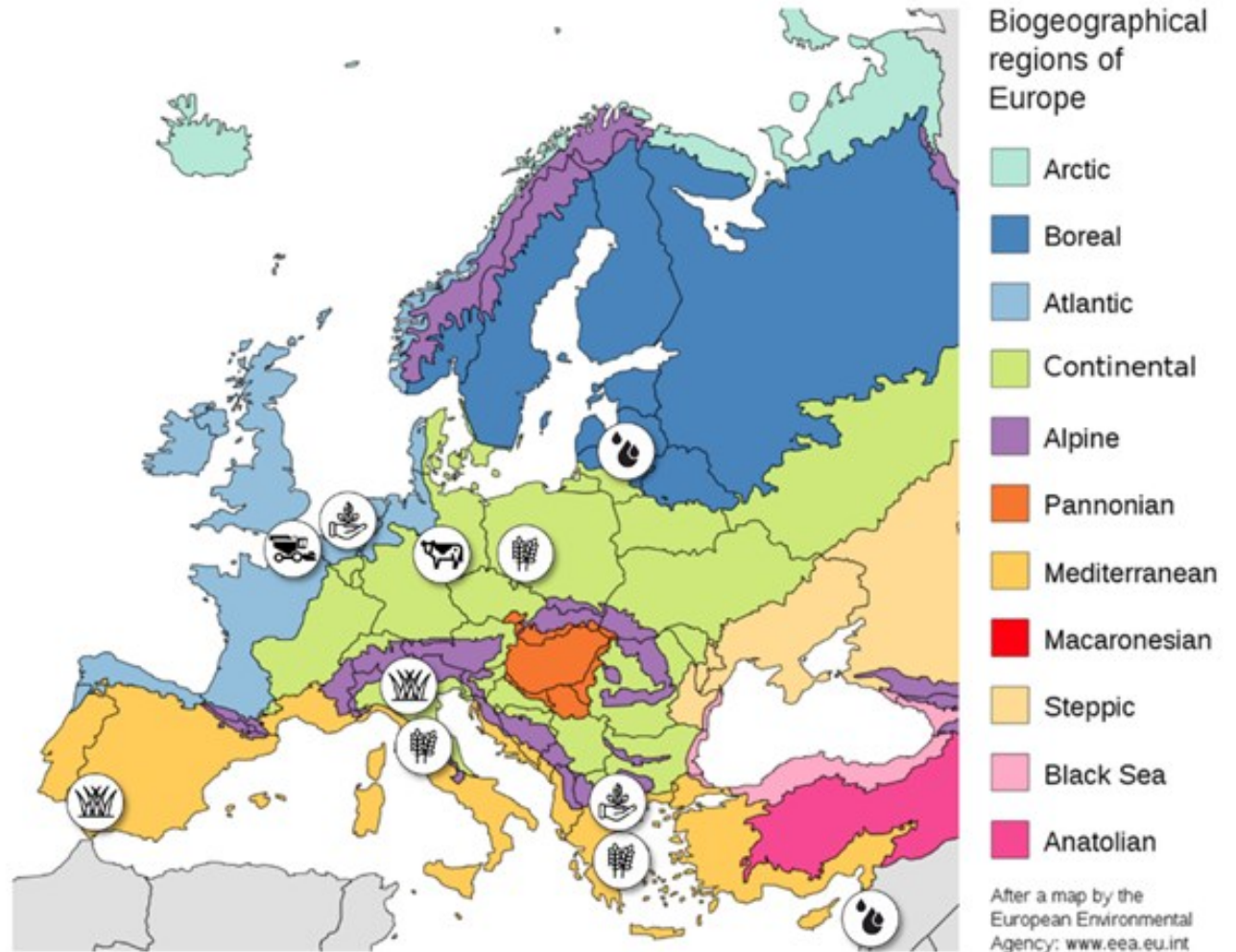
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# The Research and Innovation Labs

- Water productivity
- Crop Management
- Yield monitoring
- Soil health
- Grasslands
- Sustain Dairy

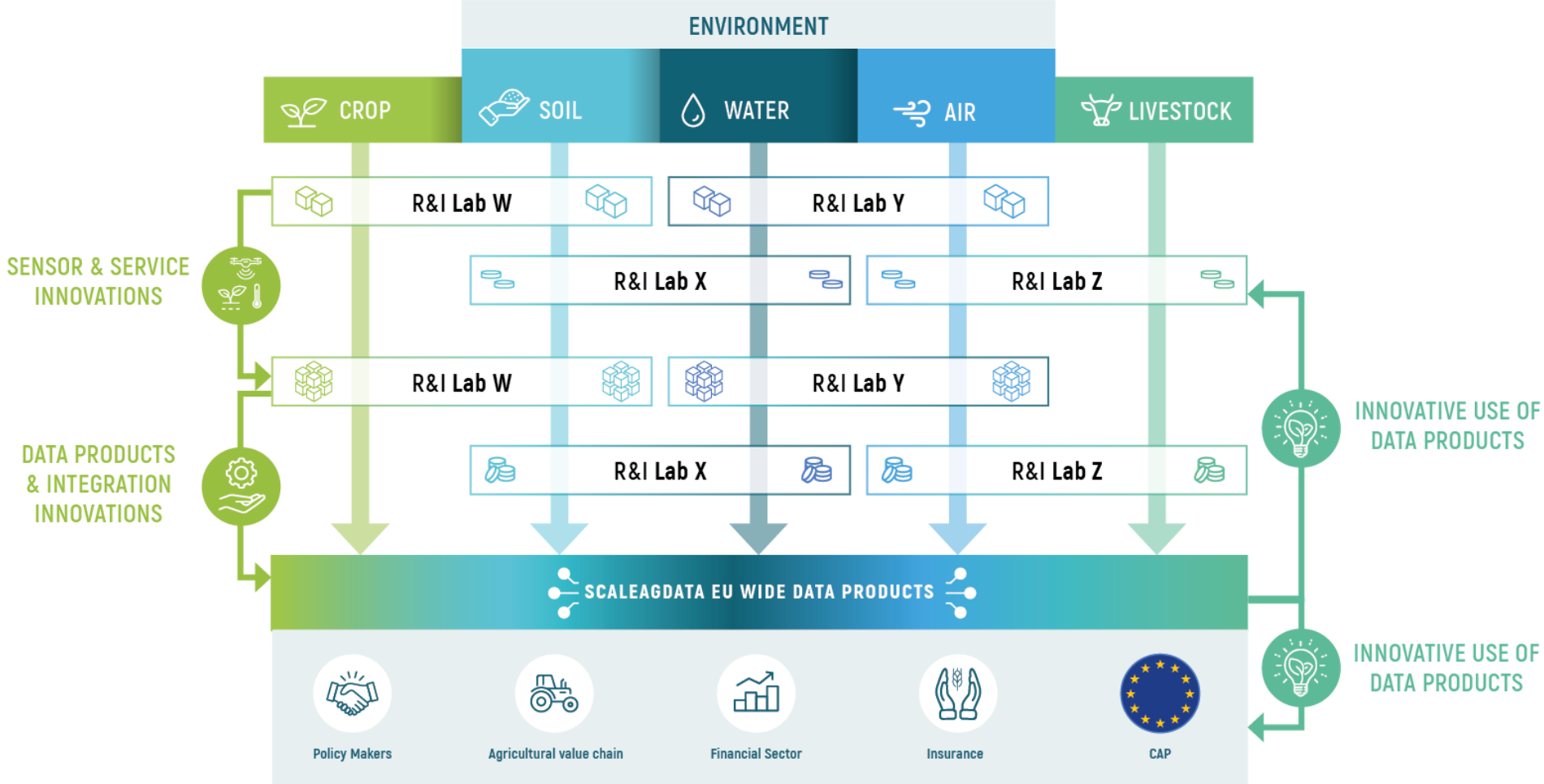
Variation in geography, crops, sensors, maturity, ...



# Innovation areas

- Innovative sensor technology (from TRL 3-5 to TRL 5-6)
- Edge processing (from TRL 4 to TRL 6)
- Data sharing architecture and data governance (from TRL4 to TRL 5)
- Satellite data augmentation (from TRL3 to TRL 6)
- From data assimilation to service development (from TRL 3 to TRL 5)
- Privacy-preserving technology (from TRL 4 to TRL 6)
- Data integration methodologies (from TRL 4 to TRL 6)

# Overall concept



CONCEPTUAL OVERVIEW OF THE SCALEAGDATA PROJECT



# Consortium: 26 partners from 14 countries

## 18 Infrastructure providers

PSNC VTT HORTA  
VITO KUVA DMK  
NP WODR MIGAL  
OHB LUKE VRI IES  
ATB ICCS EGM  
ILVO DME/DES AUTH

++ HPC, Cloud computing, machinery as well as networks of agri-environmental IoT stations

## 13 Technology/Agritech SME & companies

NP ATB  
HORTA OHB  
DHI DMK  
AGINS MIGAL  
DME/DES EGM  
KUVA CNH  
AVR

++ developing high-tech data-powered services for the agri-food sector

## 12 Research institutes/universities

VITO EURAC  
ILVO PSNC  
ICCS ATB  
VTT VRI IES  
LUKE AUTH  
IFAPA UGent

++ Agri-environmental Monitoring, Smart Farming, Sensors, Edge Computing, IoT, EO, Analytics, AI, Interoperability, Governance and more

## 2 machinery & data providers

CNH  
AVR

## 2 agri-food professional organizations

WODR  
NP (through GAIA)

++ engaging end-users in co-designing and testing project outcomes

## 4 External advisors

JRC MARS  
EEA  
FNSEA  
OGC

## 1 risk mgt, insurance & finance

AGINS

## 1 data integration

DHI

## 1 think tank

Farm Europe



# Thank you!

VITO  
ILVO  
DEIMOS  
NEUROPUBLIC  
ICCS  
VTT  
LUKE  
KUVA SPACE  
WODR  
PSNC  
HORTA  
IFAPA  
ATB  
OHB

DMK  
MIGAL  
IES  
EGM  
CNH  
AVR  
AUTH  
EURAC  
AGROINSURANCE LTD  
U GENT  
DHI  
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