Food, tasty and digital

Dr Srđan Krčo
DunavNET
A healthier and more sustainable EU food system is a cornerstone of the European Green Deal

Make sure Europeans have access to healthy, affordable and sustainable food

Tackle climate change

Protect the environment and preserve biodiversity

Ensure a fair economic return in the supply chain

Increase organic farming

“The coronavirus crisis has shown how vulnerable we all are, and how important it is to restore the balance between human activity and nature. At the heart of the Green Deal the Biodiversity and Farm to Fork strategies point to a new and better balance of nature, food systems and biodiversity; to protect our people’s health and well-being, and at the same time to increase the EU’s competitiveness and resilience. These strategies are a crucial part of the great transition we are embarking upon.”

Frans Timmermans, Executive Vice-President of the European Commission
EMPOWERING FARMERS

The H2020 DEMETER project is a large-scale deployment of farmer-driven, interoperable smart farming-IoT (Internet of Things) based platforms, delivered through a series of 20 pilots across 18 countries (15 EU countries). Involving 60 partners, DEMETER adopts a multi-actor approach across the value chain (demand and supply), with 25 deployment sites, 6,000 farmers and over 38,000 devices and sensors being deployed.
18 Countries
13 member states
60 Partners
318k hectares of land
5.7k Farmers
29k Sensors used across
80 sites
9.2k Devices & 131 Large Machinery
20 Pilots
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 PILOTS**

**5 Clusters, 20 Use Cases**

The DEMETER pilot projects are used to demonstrate and evaluate how innovations and extended capabilities benefit from the interoperability mechanisms. The pilots, running across 18 European countries, are also used to monitor the evolution of the maturity in the stakeholders involved.

The pilots are grouped into 5 clusters: arable crops, precision farming in arable crops, fruit and vegetable production, livestock (poultry, dairy, animal welfare) and the supply chain.

WWW.H2020-DEMETER.EU/PILOTS
Digital Farm Management
Integrated overview of all farm operations
Built-in powerful data analytics modules

Just in time advices based on data analytics and experts’ modules

TOLERANT GRAPE TYPE:
Risk of grey mould disease is 50%!

No action is required - if the treatment was already done (with fungicides that are efficient enough for grey mould disease) in last three days.

DIGITAL FARMING PLATFORM from FARM to FORK

agroNET – holistic farm management platform for improving crop production and animal breeding thus enabling transparency and traceability across the food supply chain
<table>
<thead>
<tr>
<th>Diseases</th>
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<tbody>
<tr>
<td>Lobesia botrana (grapevine moth)</td>
</tr>
<tr>
<td>Cydia pomonella (codling moth)</td>
</tr>
<tr>
<td>Botrytis cinerea (grey mould disease), Guignardia bidwellii (black rot of grape), U. necator (powdery mildew)</td>
</tr>
</tbody>
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![Graph showing disease prediction](image_url)

- Erwinia amylovora (fire blight of apple), Erwinia pyriovora (fire blight of pear)
Automatic (AI/ML) chicken recognition
poultryNET visualization - dashboard
From chickens to pigs, the step is not so big 😊
CONSUMERS HAVE NEW EXPECTATIONS...  

...AS WELL AS SUPPLY CHAIN STAKEHOLDERS.

Transparency

Data = new fuel
From farm to fork, transparently.

- Feed Supply
- agroNET
- poultryNET
- FleetNET
- Food Processing
- Retail
- Consumers
- Recycling

PRODUCT PASSPORT

Microsoft Azure

Blockchain
Interested in DEMETER

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